



# Catalog of Record 2024-2025



**OWN YOUR  
FUTURE**

To provide equal employment, advancement, and learning opportunities to all individuals, employment and student admission decisions at Gateway will be based on merit, qualifications, and abilities. Gateway will not discriminate against any employee, applicant for employment, student or applicant for admission on the basis of race, color, national origin, ancestry, sex, sexual orientation, creed, religion, political affiliation, marital status, parental status, pregnancy, disability, age, membership in any reserve component of the armed forces, union affiliation, or any other protected category under applicable [federal law](#) (link is external) and [state law](#) (link is external), including but not limited to Title IX, Title VI/VII, and the Wisconsin Fair Employment Act, including protections for those opposing discrimination or participating in any resolution process on campus or within the Equal Employment Opportunity Commission or other human rights agencies.

As a recipient of federal financial assistance for education activities, Gateway is required by Title IX of the Education Amendments of 1972 to ensure that all of its education programs and activities do not discriminate on the basis of sex/gender. Sex includes biological sex, sex stereotypes, gender identity, gender expression, sexual orientation, and pregnancy and related conditions. Gateway also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Sex-based harassment, sexual assault, dating and domestic violence, and stalking are forms of sex discrimination, and are prohibited under Title IX and by Gateway policy. Any member of the campus community, guest, or visitor who acts to deny, deprive, or limit the educational, employment, residential, or social access, opportunities and/or benefits of any member of the Gateway community on the basis of sex or any other protected class listed above is in violation of Gateway's policy on Equal Opportunity, Civil Rights, and Sexual Harassment. Any person may report sex and other types of discrimination and harassment (whether or not the person reporting is the person alleged to have experienced the conduct), in person, by mail, by telephone, by video, or by email, using the contact information listed for the Title IX Coordinator (below). A report may be made at any time (including during non-business hours) by filing a report at [gtc.edu/safety](http://gtc.edu/safety) or sending an email. You can locate a full copy of Gateway's Equal Opportunity, Civil Rights, and Sexual Harassment policy at [gtc.edu/eoo](http://gtc.edu/eoo) and [gtc.edu/TitleIX](http://gtc.edu/TitleIX).

Josh Vollendorf, MSE, PHR  
Director of Compliance/Title IX Coordinator  
Kenosha Campus, Administration Center  
3520 30th Ave, Kenosha, WI 53144  
[compliance@gtc.edu](mailto:compliance@gtc.edu) / 262-564-3062  
Wisconsin Relay 711

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Information is subject to change and reflects material of record as of March 1, 2024. Updated information will be posted to appropriate locations on Gateway’s website [gtc.edu](http://gtc.edu). Published by the Marketing & Communications Department, Gateway Technical College.

Accommodations: If you need special accommodations, please contact Gateway’s Disability Support Services department:

**Elkhorn Campus: 262-564-2683**

**Kenosha Campus: 262-564-2006**

**Racine Campus: 262-564-2103**

Deaf/Hard of Hearing Services:

Office: 262-564-2564

(Voice) Cell/Text: 262-960-1931

Wisconsin Relay System: 711

Email: [sadowskil@gtc.edu](mailto:sadowskil@gtc.edu)

# 2024–2025 Academic Calendar

Summer 2024 (May 6 through August 10)	
Monday, May 6	First day of Summer Semester
Monday, May 27	Holiday – college closed
Wednesday, June 19	Holiday – college closed
Thursday, July 4	Holiday – college closed
Saturday, August 10	Last day of Summer Semester
Fall 2024 (September 3 through December 9)	
Monday, September 2	Holiday – college closed
Tuesday, September 3	First day of Fall Semester
Wednesday, September 25	Employee Learning Day – no classes, Student Services Centers closed
Monday, November 11	Holiday – college closed
Thursday, November 28 – Sunday, December 1	Holiday – college closed
Monday, December 9	Last day of Fall Semester
Tuesday, December 24 – Wednesday, January 1	Winter Recess – college closed
Spring 2025 (January 21 through April 17)	
Monday, January 20	Martin Luther King, Jr. Day – no classes
Tuesday, January 21	First day of Spring Semester
Thursday, April 17	Last day of Spring Semester
Friday, April 18 – Monday, April 21	Spring Recess – college closed
Tuesday, May 20 and Wednesday, May 21 (tentative)	Commencement





## CAMPUSES & CENTERS

Administration Center • 3520 - 30th Avenue • Kenosha, WI 53144



### **Burlington Center**

496 McCanna Parkway  
Burlington, WI 53105



### **Elkhorn Campus**

400 County Road H  
Elkhorn, WI 53121



### **HERO Center**

380 McCanna Parkway  
Burlington, WI 53105



### **Horizon Center for Transportation Technology**

4940 - 88th Avenue  
Kenosha, WI 53144

## Gateway Campuses & Centers



### **Inspire Center**

3520 - 30th Avenue  
Kenosha, WI 53144



### **Kenosha Campus**

3520 - 30th Avenue  
Kenosha, WI 53144



### **LakeView Advanced Technology Center**

9449 - 88th Avenue  
Pleasant Prairie, WI 53158



### **Racine Campus**

1001 S. Main Street  
Racine, WI 53403



### **SC Johnson iMET Center**

2320 Renaissance Blvd.  
Sturtevant, WI 53177

## Gateway Vision and Mission

### College Vision

We make life-changing educational opportunities a reality.

### College Mission

We deliver industry-focused education that is flexible, accessible and affordable for our diverse community.

## Essential Career Competencies

We believe students need both technical knowledge and skills and essential career competencies in order to succeed in careers and in life. Our six essential career competencies are the general attitudes and skills essential for every successful graduate. Our faculty promotes the development of these competencies through learning experiences in all Gateway Technical College courses. We continually assess our students' learning in these areas to improve the general component of a Gateway Technical College education.

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Atención

Si usted necesita asistencia en español, por favor de llamar Maria Abrego a 262-564-2718, Elizabeth Rosiles a 262-564-2628 o Reyna Juarez a 262-564-3114. Gateway es un empleador y educador que ofrece igualdad de oportunidades.

## Accreditation

Gateway Technical College is fully accredited by the Higher Learning Commission. The Wisconsin Technical College System Board has approved Gateway as a self-governing district. Associate of Applied Science, Associate of Arts and Associate of Science degrees, technical diplomas, advanced technical certificates and Adult High School diplomas are granted.

## Academic Year

Gateway's academic year is typically made up of three 14-week semesters with specified vacation periods.

Individual programs may schedule courses within one, two (usually fall and spring) or all three of these semesters. Gateway's academic year begins with Summer Semester. Summer Semester begins in May and ends in August. Fall Semester begins in September and ends in December. Spring Semester begins in January and ends in April. Most courses are scheduled for the full length of the semester.

# Phone Numbers to Know

**Student Services Contact Center .....800-247-7122**

**Wisconsin Relay System: .....711**

## **Burlington Center**

Campus Security .....262-767-5208

Tech Central - Technology Support.....262-564-3695

## **Elkhorn Campus**

Campus Security .....262-741-8208

Learning Success Center .....262-564-2683

Tech Central - Technology Support.....262-564-3695

## **Kenosha Campus**

Campus Security .....262-564-2208

Learning Success Center .....262-564-2006

Tech Central - Technology Support.....262-564-3695

## **Racine Campus**

Campus Security .....262-619-6208

Learning Success Center .....262-564-2103

Tech Central - Technology Support.....262-564-3695

**In the event of a life-threatening emergency, dial 911 immediately.**

## **All Campus & Center Building Hours**

Monday – Friday.....6:30 a.m. – 10:00 p.m.

Saturday.....7:00 a.m. – 2:30 p.m.

Sunday.....Closed



# Services for Students

## Bookstores

Follett Campus Stores offer a complete selection of course materials, school supplies, technology and clothing. Purchasing either in-store or online at [efollett.com](http://efollett.com) is easy and convenient. Online orders can be sent to a home address or picked up at one of the campus stores. Make sure to ask about our rental, digital and price match programs to reduce costs.

Students can use financial aid to purchase course materials in the campus stores or online. Student ID and class schedule are required. Financial aid is available for a limited time, as posted on [gtc.edu/important-dates](http://gtc.edu/important-dates). Computer devices are limited to one device per Gateway career program, and other items should be purchased for school use only.

Rented books can be returned to any campus store in-person or by preferred shipping service and should be done by the posted due date at the end of the semester to avoid late fees.

Our stores buy back books year-round. Buyback values will vary based on need and are typically higher at the end of each semester. A student ID is required to sell books, and proof of prior enrollment may be requested, as buybacks cannot be processed on current semester materials. Books may also be donated to help raise funds for Better World Books charity programs.

## Bookstore Refund Policy

Course materials may be returned within seven (7) calendar days from the start of the course for any reason and up to thirty (30) days from the start of the course if the class is dropped. Short-term courses have two (2) calendar days from the start of the course for refunds and mid-semester purchases have two (2) days from the date of purchase. All refunds require a receipt and items to be in original condition. Your refund will be processed in the currency in which it was purchased. For example, if you purchased your books/supplies with a financial aid authorization, your refund will be credited to your student account before being refunded directly to you. All other store purchases may be returned within thirty (30) days for refund or exchange, provided they are in original condition and with receipt. Any electronic devices purchased from the bookstore are non-returnable if the package is opened.

For Campus Store hours and information, visit [gtc.edu/bookstore](http://gtc.edu/bookstore).

**Elkhorn: 262-564-2024**

**Racine: 262-564-2026**

**Kenosha: 262-564-2246**

## Bulletin Boards, Posters and Campus TV System

The campus television messaging system, posters and bulletin boards will keep students informed of various happenings on campus and in the community. Keep this in mind for promoting club sales or events. It is necessary to obtain permission from the Office of the Dean of Campus Affairs before posting material on campus. In order to keep bulletin boards current, any outdated information will be removed.

## Campus Safety

### Emergency Notification System

Gateway Technical College's AlertMe emergency notification system will alert all staff, students and registered subscribers with an email, a phone call and/or a text message, depending on the situation, in the event of an emergency or a required timely warning occurring at or near one of the Gateway locations. In addition to the email, phone call or text alert, the AlertUs beacons, which are located throughout all of Gateway's buildings, may sound in the affected building(s). Once the situation no longer presents a threat or safety concern, an "all clear" notification will be sent.

All students are enrolled in the AlertMe system at the time of enrollment. If you provide your cell phone information, then you will receive text messages or phone calls and email messages when the college issues a notification. All students are encouraged to log in to the AlertMe system at [gtc.edu/alertme](https://gtc.edu/alertme) to verify their enrollment if they are uncertain of their current status.

Note: If your cell phone provider charges for text messages received, there will likely be a cost associated with this service. Check with your mobile phone provider. If you wish to not participate in the AlertMe text messaging, then you will need to log in to the AlertMe system at [gtc.edu/alertme](https://gtc.edu/alertme) each semester and discontinue text notices.

### Incident Reports

The safety of our students is one of our top priorities. Gateway encourages all persons to take an active role in ensuring the safety of the campus community. If you witness, hear about or are a victim of an incident on campus or at an off-campus Gateway site or Gateway-sponsored event, Gateway encourages you to directly file a report by completing an online incident report at [gtc.edu/safety](https://gtc.edu/safety) or in person at one of the Campus Security Offices.

Examples of items to submit through this reporting system include but are not limited to: safety concerns, suspicious activity, criminal law violations, violations of college policy and student code of conduct, and accidents including traffic and personal injury. If you are unsure about whether the incident should be reported, call the Security Office for the campus where the incident occurred at the phone number listed below.

Anyone completing a report may remain anonymous if they desire. In addition, if you observe a crime or incident taking place, we ask that you contact a member of our security team immediately or dial 911 if it is an emergency.

### CARE Team

The mission of the Communication, Awareness, Referral and Evaluation Team (CARE Team) is to contribute to a safe campus environment by reducing potential threats and to increase student success through the identification, assessment and management of troublesome or concerning behaviors. This multidisciplinary team will assess available information regarding an individual student or employee and determine an appropriate course of action and interventions. By intervening with a student or employee who has exhibited behavior that is of concern, Gateway hopes to prevent escalation of harmful or disturbing behavior that would impede on a student's academic journey or an employee's position. Members of the campus community are strongly encouraged to report persons of concern by completing a CARE Team report at [gtc.edu/care](https://gtc.edu/care). If you observe or hear any behavior that causes concern (no matter how small or limited your direct knowledge may be), please complete a CARE Team report to alert the college as soon as possible.

### Emergency Response Plans

Gateway Technical College has developed Emergency Response Plans (ERPs) for the college that can be found at [gtc.edu/safety](https://gtc.edu/safety). This plan includes an outline of the college's processes for responding to a campus or district incident. They also include a "checklist" of responses to typical incidents that may occur on campus.

### Annual Security Report

The safety of our students is one of our top priorities at Gateway Technical College. As a student, we provide you with and encourage you to read our Annual Security Report. This report is published in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act) and the Violence Against Women Act. This report includes crime statistics, institutional policies on campus security and safety, alcohol and drug use, crime prevention, the reporting of crimes or incidents, sexual misconduct and other important matters. The full text of this report is available online at [gtc.edu/safety](https://gtc.edu/safety) under the Additional Information section at the bottom of the page. Please feel free to email [cleryreporting@gtc.edu](mailto:cleryreporting@gtc.edu), [vollendorff@gtc.edu](mailto:vollendorff@gtc.edu), [johnsonsh@gtc.edu](mailto:johnsonsh@gtc.edu) or call 262-564-3062 or 262-564-3164 should you need a hard copy of the report.

## To report an incident or crime, please call:

Campus/Location	Campus Security	Dean of Campus Affairs
Burlington	262-767-5208	262-564-2084 (Office)
Elkhorn	262-741-8208	262-564-2084 (Office)
Horizon	262-564-2208 (Kenosha)	262-564-2726 (Office)
iMET*	262-564-2007	262-564-2550 (Office)
Kenosha	262-564-2208	262-564-2726 (Office)
Racine	262-619-6208	262-564-2672 (Office)

1) If a person and/or property are in immediate danger, call 911.

2) Then notify Campus Security at the phone numbers above.

\* iMET Center Security Office is staffed Monday-Friday from 12-8 p.m.

## Career and Employment Services

### Career Planning

If students are unsure of what program they would like to pursue, help is available from Career and Employment Services. Gateway Career Counselors work with students to provide guidance in choosing an appropriate program and career. Career exploration includes assessing student interests, values and strengths to help align self-knowledge with potential career options. Self-assessment tools are used in this process. Students will be shown how to conduct occupational research and uncover labor market statistics and employment trends using internet resources culminating in a confident program and career decision. Students can access resources at [gtc.edu/careerassessment](http://gtc.edu/careerassessment) and [gtc.edu/explorecareers](http://gtc.edu/explorecareers).

### Student Employment

Career and Employment Services is also dedicated to developing and empowering students with the skills necessary to find employment in their chosen career. Appointments focus on a variety of job readiness skills: resume and cover letter writing, interviewing skills/practice and job search strategies. All students and alumni are welcome to utilize these services at [gtc.edu/jobsearchresources](http://gtc.edu/jobsearchresources).

### Find Jobs And Internships

Students are highly encouraged to access a wide variety of job opportunities from local and nationwide employers through Handshake, a web-based job database utilized by the Wisconsin Technical College System and many other colleges and universities. Handshake can be found at [gtc.edu/handshake](http://gtc.edu/handshake). To utilize Handshake, individuals must be a current program student or a graduate of Gateway Technical College.

### Engaging with Employers on Campus And Virtually

Career and Employment Services also partners with employers to offer employment opportunities to Gateway students and alumni including but not limited to:

**Career Fairs And Campus Recruiting:** On-campus and virtual career fairs and events are held throughout the academic school year to expose students and alumni to a variety of employers in one convenient setting. Information on upcoming career fairs can be found at [gtc.edu/ces](http://gtc.edu/ces).

**Services And Appointments:** For online services and more information about Career and Employment Services, visit [gtc.edu/ces](http://gtc.edu/ces). Students can register for an individual appointment by phone at 1-800-247-7122 or online at [10to8.com/book/gtcces](http://10to8.com/book/gtcces) Staff meet both in-person or virtually for your convenience.

## Computer Access

Each Gateway campus and center offers free computer access on a first-come, first-served basis, such as at kiosks or workstations in convenient locations like the campus library and computer labs. Computers at these locations have basic office applications installed and internet access. If you need assistance locating a computer, please contact the Safety Office for your location or visit a library front desk.

## Computer Software

Gateway provides the Google Workspace for Education to all active students for FREE. Google Workspace Suite (formerly GSuite and Google Apps) is a free suite of communication and collaboration tools – including an ads-free Gmail account, Sheets, Docs and Hangouts – for learning anywhere, anytime, on nearly any device with access to the internet. All active Gateway students have limited access to Google Drive with 25GB of storage for documents, photos, drawings, recordings, videos, etc. And with Office Compatibility Mode, you can open and edit documents in their native file format.

Microsoft also offers an Office 365 subscription for active Gateway students for FREE. The subscription includes Office for Mobile, Office for Mac, OneDrive and Office 365 Professional Plus On Demand which includes Word, Excel, Powerpoint, Access, OneNote, Publisher and Outlook. To get started on Office 365, visit [office.gtc.edu](http://office.gtc.edu) or find further instructions on the student support Brightspace site. If you need assistance accessing Office 365, contact Tech Central at 262-564-3695 or submit a ticket at [support.gtc.edu](http://support.gtc.edu).

Some academic programs have software that students are required to install on their personal computers. These applications may be free or may be required to purchase. Your instructor will share this information with you in class.

## Deaf/Hard of Hearing Services

Gateway Technical College provides services to Deaf and Hard of Hearing (D/HH) individuals.

Educational support services include interpreters, tutorial services, note taking, closed captioning, C-print captioning and other support to enable a student to obtain equal access to the college. Videophones are also available in a private space for deaf students, staff and community members at each Gateway campus.

To find out more or to meet with a Deaf/Hard of Hearing staff member, please contact:

### **Lisa Sadowski, Disability Support Specialist (D/HH)**

Office: 262-564-2564 (Voice)

Video Phone: 262-456-5378

Wisconsin Relay System: 711

Cell/Text: 262-960-1931

Email: [sadowskil@gtc.edu](mailto:sadowskil@gtc.edu)

Gateway interpreters will respect the privacy of students and keep information on a need-to-know basis. This means that your interpreter will keep personal information confidential as stated in the RID Code of Professional Conduct. However, there are times in which interpreters must inform others about details or circumstances they learn about while interpreting for you at the college. These include violations of Gateway policies related to sexual misconduct, civil rights violations and violations of the student code of conduct, as well as discussions relating to harming others, criminal activities and child abuse. You can review the Student Code of Conduct in the Student Handbook under Student Rights and Responsibilities. Interpreters work for Gateway Technical College and follow the rules of the college in regards to reporting these violations.



### Gateway GreenPrint

Each semester, registered students will receive a \$10 credit of non-refundable Gateway Print Points on their Gateway student ID card.

#### Costs:

Single-sided, black and white prints or copy: 7¢

Double-sided, black and white prints or copy: 10¢

Single-sided, color prints or copy: 50¢

Double-sided, color prints or copy: 75¢

There will be no charge for scanning to email. Double-sided printing will be the default setting on all printing devices.

If a student does not have sufficient funds on their account, a job will not be released. The student is responsible for adding additional funds to their account via their online account or kiosk stations on campus. Kiosk locations and directions for logging into the online account center are available at [gtc.edu/printing](http://gtc.edu/printing).

The \$10 credit will be allocated the first day of each semester. This credit will expire/dissolve the day before the start of the next semester. Students and community members may also purchase blank visitor cards and load/reload them at the kiosk stations.

### Housing

Gateway does not have dormitory facilities for students. It is a student's responsibility to arrange for room and board if they will be living away from home. Students moving into local housing are advised to register their address with the Student Services Office on the campus they attend.

### Learning Success Centers

Learning Success Centers provide tutoring services, facilitated study groups and other academic assistance for any student enrolled in Gateway Technical College courses. Instructors in the centers also provide guidance and direction for successful study skills. Computers are available for use in doing research, utilizing program-specific software and completing written assignments. The Learning Success Centers also offer classes and individualized instruction in basic skills, GED® and Wisconsin High School Equivalency Diploma (HSED) preparation, career exploration and academic preparation for entry into a technical or associate degree program. These services are free to Wisconsin residents.

**Elkhorn Campus Learning Success Center:** North Bldg., Room 208, 262-564-2683

**Kenosha Campus Learning Success Center:** Academic Bldg. Room A111, 262-564-2006

**Racine Campus Learning Success Center:** Lake Bldg. L100, 262-564-2103

### Library

Libraries are located on the Elkhorn, Kenosha and Racine campuses and online 24/7 at [gtc.edu/library](http://gtc.edu/library). The libraries support the academic, career and professional needs of students, instructors and staff. Each of the campus libraries has an extensive collection of electronic, print and multimedia resources, group and quiet study areas, computers and printers, Wi-Fi and staff to assist you with your research and information needs. Library hours, policies, services and resources are available at the library webpage.

### Lost and Found

Students who have lost or found property should contact Campus Security. Items left in the lost and found for more than 90 days will be disposed of or donated.

## Medical/Health Insurance Coverage

All students are expected to have adequate health insurance coverage.

## My Gateway – Student Online Portal

My Gateway is your online student portal to the resources you need for academic success. My Gateway is filled with tools to help you have the best Gateway experience possible. My Gateway can be accessed on Gateway’s website at [gtc.edu](http://gtc.edu) by clicking on “My Gateway” in the upper right corner or directly at [gtc.edu/MyGateway](http://gtc.edu/MyGateway). Log in using your seven-digit Gateway student ID number and password.

My Gateway provides access to a wide range of resources including:

**Learning Management System:** A Learning Management System (LMS) is your web-based hub for course information such as syllabi, handouts, assignments, interactive discussion boards and online tests. The college will use Brightspace beginning in Summer of 2024. Brightspace use varies by program, course and instructor. If you are enrolled in an online course, all of your course content will be accessed through your Brightspace account. Course content for courses taught using Brightspace will be available the first day of class.

**Course Information, Academic Plans, Financial Aid and Registration:** Access your student account information and financial aid, register for courses, view your Academic Plan, check your grades, view your course schedule and more.

**Student Email:** This is your channel for Gateway-related communication, including event announcements, financial aid award notifications, correspondence from your instructor and more. You can also access email directly at [mail.gtc.edu](mailto:mail.gtc.edu).

**Campus-wide Announcements** and Gateway’s academic and events calendar.

**College Events:** View and register quickly for upcoming events.

**Student Resources:** These include quick links to the campus bookstore, library, Learning Success, Tutoring Services, Student Life, Gateway Strengths portal, scholarships and more.

## Gateway Student ID Number and Password

Your Gateway student ID number and password are the single login that you will use to access My Gateway, Brightspace, Gateway student email and the Gateway wireless network. In addition to your password, Gateway also requires all students to enroll in multifactor authentication (also known as two-factor authentication). When you sign into Gateway services for the first time, you will be prompted to register a second factor. You can find more information and instructions by visiting [mfa.gtc.edu](http://mfa.gtc.edu).

### Forgot your Student ID Number?

1. Go to [gtc.edu/MyGateway](http://gtc.edu/MyGateway). Click on, “Don’t know your Student ID and Password?” Then click “Don’t know your student ID?”
2. Enter your last name, birthdate and EITHER social security number OR password recovery email address on file.
3. Click “Submit.” Your student ID number will be displayed at the top of the screen or sent to your password recovery email address.

### Forgot your password?

You may have already set up your password in Student Services. If not, you can request your password by visiting [gtc.edu/MyGateway](http://gtc.edu/MyGateway), clicking “Don’t Know Your Password (Students Only)?” and following these directions:

**Option 1. To access your new password immediately:** If you know your previously supplied security question and answer, fill in the first and third sections and your password will immediately be displayed on the screen.

**Option 2. To have your password emailed to you:** If you know what personal email address Gateway has on file for you, fill in the first and second sections and your password will immediately be sent to that email address.

If you do not have your security question set up, you can do so in-person with photo identification at any of Gateway's Student Services Center. To update the personal email associated with your account, you can submit a Data Add/Change form found at [gtc.edu/forms](http://gtc.edu/forms).

### Forgot or lost your multifactor authentication device?

If you have forgotten, lost or changed your multifactor authentication device, you can request a temporary code to access your account by visiting [gtc.edu/MyGateway](http://gtc.edu/MyGateway) and clicking "Forgotten or Lost MFA Device" or by visiting [otp.gtc.edu](http://otp.gtc.edu). If you need to change your second factor, you can find instructions to do so by visiting [mfa.gtc.edu](http://mfa.gtc.edu).

**Questions about My Gateway?** If you have any questions about your student ID number or password, please call 1-800-247-7122 or visit any Student Services Center.

Questions about Brightspace? Please call 262-564-3695 or email [techcentral@gtc.edu](mailto:techcentral@gtc.edu).

## Parking

Lighted parking is available on all campuses. Vehicles should be locked and property stowed out of sight. All individuals use parking facilities at their own risk. The college does not assume any responsibility or liability for the protection or security of vehicles or contents while moving or parked in the areas owned or controlled by the college. Parking in unauthorized areas may result in vehicles being ticketed and/or towed by local police at the owner's expense. Abandoned vehicles or any vehicle deemed to be a hazard may also be towed. Designated parking spots have been reserved for individuals with disabilities. Only those with designated license plates or placards issued by the Wisconsin Department of Transportation Division of Motor Vehicles or a similar government agency are allowed to park in these areas. All others may be ticketed by the local police department.

## Services for Students with Disabilities

In accordance with the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973, Gateway special needs staff provide a full range of support services/ reasonable accommodations at the request of the student with documented disabilities. This is to give all students equal access to learning opportunities at Gateway Technical College in order to reach their educational goals. Disability support services should be requested before the start of the semester to allow adequate time to review documentation and to facilitate accommodations.

"The term 'disability' means, with respect to an individual –

- a. a physical or mental impairment that substantially limits one or more of the major life activities of such individual;
- b. a record of such impairment; or
- c. being regarded as having such an impairment. (P.L. 101-336, Sec.)"

### Procedure to Receive Services and Accommodations

Students seeking accommodations for the first time should complete the intake form at [gtc.edu/DSS](http://gtc.edu/DSS).

Students currently working with DSS who are seeking accommodations for a new semester, please visit [gtc.edu/DSS](http://gtc.edu/DSS) and complete the Accommodate form for continuing students. (You must be logged in to your Gateway student email for access.)

Disability Support Services serves:

- Students who have documented disabilities that limit academic access
- Faculty instructing students with disabilities
- Individuals seeking disability information

### Strengths

Gateway Technical College is proud to be a Strengths-based college and encourages Gateway students to take their CliftonStrengths Assessment. Your CliftonStrengths Assessment uncovers your top five talent themes by measuring your talents. Once you know your talent themes, you can develop them into Strengths that you can apply to your academic, professional and personal life. Visit our collection of Strengths resources and connect with campus resources at [gtc.edu/strengths](http://gtc.edu/strengths).

### Student Accident Insurance

Students are eligible to receive Student Accident Insurance coverage when they are taking at least one eligible post-secondary class. This charge is automatically added to the student's account when they register for an eligible course. For more information on this benefit, please visit [gtc.edu/insurance](http://gtc.edu/insurance).

### Student ID Cards

The Gateway photo student ID card is the property of Gateway Technical College, serving as the official form of college identification. The following applies:

- All students (registered in a course more than 4 weeks in length) and staff are required to have a Gateway ID card.
- It must be carried at all times and presented to Gateway staff and/or security personnel upon request.
- Failure to present a valid Gateway student ID card may result in a request to leave the premises.
- Security personnel may verify identity with any Student Services Center if a student fails to present a valid Gateway student ID card.
- The Gateway student ID card is non-transferable.
- The Gateway student ID card may be confiscated and/or disciplinary action taken if presented by someone else for use or altered in any way.
- Students in courses off-campus are not required by Gateway to have a student ID card, but one may be required by location-specific guidelines (e.g. clinical locations).

To receive a student ID card, eligible students can stop by a Student Services Center with photo identification. Eligible students will also be sent an invitation email with instructions to submit an ID photo online to have a student ID card mailed. There is no charge for your initial card. To report a lost or stolen Gateway student ID card, contact the Student Services Contact Center or any Student Services Center immediately. Gateway student ID cards that are damaged or defaced are no longer valid and must be replaced. To replace a lost or stolen card, there is a \$5.00 charge. For more information about the Gateway student ID card, visit [gtc.edu/gatewayonecard](http://gtc.edu/gatewayonecard).

### Student Support Counselors

Gateway Student Support Counselors provide free short-term private and confidential counseling for students at the Elkhorn, Kenosha and Racine campuses. Student Support Counselors help students address: personal and relationship issues, transition and change, stress management, communication skills, grief and loss, self-awareness/advocacy, coping strategies and community referral (e.g., housing, transportation, other personal emergencies). Students can make an appointment by phone at 1-800-247-7122 or in-person with photo identification at any Student Services Center.

Gateway also provides free online counseling services to students through BetterMynd. BetterMynd has Licensed Professional Counselors who partner with Gateway Student Support



Counselors to offer expanded counseling for additional hours in the evening and on weekends via Zoom. Sign up for up to six free online therapy sessions that you can access at any time at [app.bettermynd.com/register](http://app.bettermynd.com/register).

### Student Support Programs

Gateway offers a variety of support services to help students succeed in their program of study, including tutoring services, facilitated study groups and disability services. A variety of specific support programs are also offered. These support programs are designed to support and assist students in a variety of ways, including academic workshops, one-on-one assistance, leadership skills and mentorship.

**Multicultural Program:** Provides students with one-on-one support and mentoring, student success workshops, leadership development, connection to campus and community resources, scholarship information, academic learning communities and social/cultural programming.

**Men of Color Scholars Program:** Creates a safe and inclusive environment that supports the academic, personal and professional growth of men of color at Gateway by removing barriers and providing intentional support through specific resources, mentorship and guidance.

**Hispanic Student Program:** Supports the student's academic journey through providing a sense of belonging on campus, offering individualized academic support, connecting them to campus and community resources and helping them navigate college and beyond.

**TRiO Achiever Group (TAG):** TAG Support Specialists work one-on-one with students with disabilities to help them adjust to the demands of college. Also, students with disabilities who are interested in attending four-year college can receive academic support and case management.

**Non-Traditional Occupations Program:** Assists students who are pursuing career goals in non-traditional occupations through a variety of resources. A non-traditional occupation is defined as one in which women or men comprise less than 25 percent of the workforce.

**Step UP Program:** Supports individuals who are single parents or who may have worked in the home for a substantial number of years providing unpaid household services for family members or individuals. This program also provides support to students who are currently unemployed or underemployed. Step UP Program services include case management services, workshops and networking opportunities.

**Veteran Support Services:** Gateway has been identified as a military-friendly college and continues to increase its commitment to helping veteran students, spouses and dependents to complete their education. The Veteran Support Specialist will develop strategies for overcoming barriers, create individual success plans and provide referrals to campus resources within the college.

### Tech Central – Technology Support

Gateway's Tech Central help desk provides free support services to assist students with accessing college technology resources on site or remotely. Tech Central can also assist with accessing Gateway's wireless network, provide suggestions for troubleshooting issues with software updates or installation and address questions regarding My Gateway or Brightspace. Additional resources can be found on the student support Brightspace site. Tech Central can be reached by calling 262-564-3695, by emailing [techcentral@gtc.edu](mailto:techcentral@gtc.edu) or by visiting [gtc.edu/techcentral](http://gtc.edu/techcentral).

### Visitors, Guest Speakers and Children on Campus

Visitors and guest speakers shall be permitted to visit classes offered by the Gateway District with the prior consent of the instructor. Consent and permission for visitors will be granted only for the purpose of becoming knowledgeable about a course or oriented to the educational mission of the Gateway District. Students are not allowed to bring a child or children to a class. Furthermore, students, visitors or guest speakers are prohibited from leaving a child under the age of sixteen (16) years unattended in Gateway District facilities, unless the child is enrolled in a

course or program. Greater restrictions may apply in computer labs, program labs and other areas of the college that may be restricted to students only or are unsafe.

### Weather Closures

In case of bad weather, do not assume that classes are canceled. More than likely, classes will be held as scheduled. Information on campus closures is available on the home page at [gtc.edu](http://gtc.edu), at 1-800-353-3152 or on the college's Facebook page. During bad weather conditions, students are encouraged to use their own judgment in regard to distance, safety and road conditions.

Each campus is closed on an individual basis, depending on each county's weather and road conditions.

**Classes Canceled** means no classes will be held, but buildings are open and staff will remain present or report to work stations.

**Campus Closed** means the buildings are closed. In-person classes are canceled. ASYNC and OSYNC online classes will meet as scheduled and hybrid classes may meet online based on instructor direction.

**Building Emergency** means building(s) evacuated, return or dismissal determined by the campus dean or their designee.

### Wireless Computer Information

Gateway offers all students free access to the college network and the internet. "GTC-Wireless" is the wireless network for students, faculty and staff on all Gateway Technical College campuses and centers. Gateway uses WPA2 Enterprise (Wi-Fi Protected Access) for authentication and encryption. Students should use "GTC-Wireless" for all of their devices. Please follow the instructions found on the student support page found on Brightspace.

#### Will I need to log in every time I want to access the network?

No. You do not have to log in again on the same device after following the above directions.

#### What do I do if I am unable to log in to the wireless network or if I am frequently disconnected from the wireless network?

Contact Tech Central at 262-564-3695 or log a support ticket at [support.gtc.edu](http://support.gtc.edu).

#### What happens if I change my password?

If you change your password, the next time you try to access the network, you will be prompted to provide that password. Enter the new password and click "OK." Your password will be saved and your device will begin connecting automatically to the network again.

**Questions about wireless access?** Contact Tech Central at 262-564-3695 or log a support ticket at [support.gtc.edu](http://support.gtc.edu).

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## Diversity, Equity and Inclusion

We are committed to providing a diverse, equitable and inclusive learning and working environment to enhance the Gateway experience for all students and staff.

- We value diverse perspectives, strengths, contributions, backgrounds and cultures.
- We provide resources to each person according to their individual needs so they can overcome barriers and challenges to their success.
- We strive to create a sense of belonging where everyone can live authentic lives without concern of negatively impacting their opportunities for success.

To maintain a culture of diversity, equity and inclusion, each member of the Gateway community is charged to honor differences and to treat everyone with care and respect.

The Red Hawk family welcomes everyone. From our administration to our staff, to our faculty and student organizations, Gateway champions diversity, equity and inclusion throughout our community. Formed in 2020, our Office of Diversity, Equity and Inclusion (DEI), led by Tammi Summers, PhD, ensures that the college provides all students and staff a culturally rich working and learning environment. The Office of DEI serves all students in the Gateway community including student with disabilities, veterans, first generation students, students of color, single parents, those with non-traditional occupations and justice-impacted students.

Gateway offers many opportunities to get involved, feel welcome and contribute to creating a more inclusive, equitable and diverse environment at Gateway. Visit an event hosted by Student Life through Diversity 365 (D365), stop by one of our campus Multicultural Resource Centers, attend a conference or participate in professional development, join a student club, join the Diversity, Equity and Inclusion (DEI) Student Advisory Committee, attend a workshop in the Communicating Respectfully in a Diverse World or Student Success Workshops, become an Equity Ally or take action with the DEI Steering Committee.

Learn more about these opportunities and about other initiatives that encourage diversity, equity and inclusion at Gateway by visiting [gtc.edu/youbelong](https://gtc.edu/youbelong).

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## Student Life

A variety of student activities and events are planned during the academic year on all campuses through the Student Life staff, United Student Government and other Student Affairs department staff. Events such as musical entertainment, comedians, awards ceremonies, trips, graduation and multicultural events are planned for students, faculty and staff to ensure a more enjoyable college experience. Our activities and events are held either on campus or virtually. For more information on student activities and events, please contact the Student Life Coordinators via email at [studentlife@gtc.edu](mailto:studentlife@gtc.edu) or visit [gtc.edu/studentlife](https://gtc.edu/studentlife).

### Student Activities Funding Committee

The Student Activities Funding Committee (SAFC) makes decisions regarding the disbursement of funds derived from student activity fees. The board is composed of thirteen United Student Government officers. The controller prepares an annual budget for SAFC approval that is submitted to the Executive Leadership Council and college president for approval. In partnership with SAFC, the Student Funding Request Committee reviews and approves requests for fundable activities, which include but are not limited to: student government, student club activities, Student Affairs activities and programs, advisor expenses, cultural activities, campus building projects, conference travel, etc. The SAFC may not expend any funds for the purchase and/or distribution of alcoholic beverages. To request SAFC funds, contact the Student Life Coordinators via email at [studentlife@gtc.edu](mailto:studentlife@gtc.edu).

### Campus Ambassadors

The Campus Ambassador Awards program is designed to acknowledge deserving students based on their occupational competence, personal goals, enthusiasm for technical education, outstanding character, positive attitude, leadership, communication skills and self-confidence. In order to be nominated as a Campus Ambassador, nominees must be accepted and enrolled in a technical diploma or an associate degree program and must have completed at least one semester at Gateway. Nominees are then required to give a presentation that is judged by a panel of three. A winner is selected from Elkhorn, Kenosha and Racine to represent their campus as the Campus Ambassador. A Gateway WTCS Ambassador is selected from the three Campus Ambassadors to represent the Gateway district at the WTCS Ambassador Program around the state. The competition is held annually. Find the application and more information at [gtc.edu/campusambassadors](https://gtc.edu/campusambassadors).

# Student Organizations and Clubs

Your participation in college organizations is encouraged. Many groups have state and national affiliation. Club meetings are scheduled periodically throughout the semester to provide meeting times during the academic day. Each club must have a faculty/staff advisor. Club social, civic and service projects foster a broadened appreciation of experiences outside of the Gateway classroom and can result in your personal development. Future employers recognize the value of club participation in identifying leadership potential. Clubs and other student organizations receive many advantages and conveniences provided by the college. These include the use of college facilities at no charge for social activities, meetings and fundraisers. Club checking account services are provided at no charge, and Student Activities Funding Committee (SAFC) funds are made available upon request to support club activities. For additional information on the clubs listed, visit [gtc.edu/clubs](http://gtc.edu/clubs).

## National Society of Leadership and Success

### Sigma Alpha Pi

The National Society of Leadership and Success (NSLS) is a nationwide organization dedicated to creating lasting positive change in students' lives and in the community. Students participate in nationwide leadership telecasts, a leadership training day, peer coaching and receive a leadership certificate. To be eligible for membership, students must achieve a 3.3 grade point average or better.

## Phi Theta Kappa

### Scholastic Honorary Fraternity

All Gateway students have the opportunity to earn scholastic recognition through membership in Phi Theta Kappa (PTK), the honors society for two-year colleges. The PTK member becomes part of the international organization that offers national scholarships. To be eligible for membership, a student must be currently enrolled in an associate degree program and have earned 12 or more credits with a grade point average of 3.75 or higher.

## United Student Government

The United Student Government (USG) is the one encompassing body representative of the student population. It provides students with opportunities to learn leadership skills. Officers of the United Student Government are elected by the student body in an annual online election. This organization is an advisory body, working with students, faculty and administration on the social, educational, and cultural aspects of college citizenship, and for the betterment of the campus. The United Student Government underwrites many special events planned for students. United Student Government membership is open to all students. For additional information, visit [gtc.edu/usg](http://gtc.edu/usg).



## Admissions

The Gateway District provides an equitable process for admitting individuals to Gateway programs that is consistent with Chapters 38 and 118 of the Wisconsin Statutes and TCS 10 of the Wisconsin Administrative Code, which govern the Wisconsin Technical College System. Applications and related materials are reviewed on a first-come, first-served basis. The laws pertaining to Family Educational Rights and Privacy Act (FERPA) rights begin at the time of matriculation. A student is defined as one who has been accepted to a program and/or enrolled in a course.

### Admissions Dates

Gateway accepts applications on an ongoing basis year-round. Application processing time is typically five days.

### Student Types

#### Degree-Seeking Students

Degree-seeking students are individuals who are accepted to a specific postsecondary program with the intent of graduating. Application, application fee, placement testing, official high school transcripts and any other identified admission requirements must be completed for program admission.

#### Non-Degree Seeking Students

Non-degree seeking students are individuals who are attending Gateway with no intention of completing a program. These individuals may enroll in courses for which all prerequisites have been met. Placement testing may be required depending on the course(s) selected. Students seeking this status do not need to complete an application for admission and may register beginning the first day of open registration. Students accepted as non-degree seeking (not admitted to a specific program) are not eligible for federal financial aid.

#### Guest Students

Guest students are individuals who would like to earn credits at Gateway for the purpose of transferring the credits back to the college or university they are currently attending. The guest student application is only required if the coursework they wish to take has a prerequisite. It should be returned to Gateway's Admissions Office with the appropriate required signatures or ACT/SAT scores for course placement. Gateway Technical College does not offer financial aid to guest students. Guest students must work with their home institution to develop a consortium agreement with Gateway to utilize financial aid at the home institution.

### Acceptance Status

**Full Acceptance Status:** For individuals who have met all program admission requirements.

**Remedial Acceptance Status:** For individuals who have met all program admission requirements and for whom placement scores indicate remediation is required.

**Conditional Acceptance Status:** For individuals who are required to verify high school or GED graduation for admission to their program. A conditional acceptance may apply for students who have completed their junior year of high school or at least half of their GED testing (passed three out of five GED tests). To be accepted conditionally, all other admission requirements for the program must be met. Conditionally accepted students may register with newly accepted students for their first semester at Gateway. The receipt of official verification of the secondary credential or equivalent must be met prior to the start of the student's second semester of enrollment. Conditionally accepted students' admittance dates will be considered for petitioning programs based on their conditional acceptance to a program. Students can lose their petition eligibility if they do not provide a final official transcript. Conditionally accepted students will be

eligible for financial aid once they are fully admitted to their program and meet all other financial aid eligibility requirements.

## Placement Testing and Multiple Measures

Individuals applying for admission to Gateway's postsecondary educational programs must meet the college's Multiple Measure placement requirements or take a placement assessment to assist in the appropriate placement in coursework. All applicants must meet the current placement requirements for admission and courses. To utilize Multiple Measure placement: applicants can submit official high school transcripts showing a cumulative, unweighted GPA of 2.6 or higher at the end of their junior year or later, an official college transcript showing at least 12 earned credits with a 2.0 or higher, or an official transcript showing a degree earned (technical diploma or higher). To use placement testing, applicants can submit ACT or SAT scores that are 12 years old or less or complete the Accuplacer Next Generation Placement Assessment.

Individuals not seeking program admission who wish to take a college course(s) may be required to meet Multiple Measure placement requirements or take a placement test for courses with a placement score prerequisite. When individuals with a documented disability are required to test, reasonable accommodations will be provided pursuant to state and federal regulations.

## Admission of Transfer Students

Students who want to transfer credits from another college or university to Gateway Technical College must be accepted to a postsecondary program and submit official transcripts to any Student Services Center. Official transcripts are defined as transcripts sent directly to Gateway from the issuing institution, by a recognized electronic transcript service or hand delivered by the student if the transcripts remain unopened in the issuing school's sealed envelope. Official transcripts must have the issuing institution's seal and appropriate official's signature to be accepted. The Registrar's Office will review all admitted students' post-secondary transcripts and award maximum transfer credit. Please also see the section on credit for prior learning.

## Admission of High School Age Students

### Compulsory School Attendance (118.15)

§118.15 Contracts are exemptions to the requirements of compulsory attendance. Students qualify for these contracts under varying circumstances. Requirements for school districts also vary.

1. Upon the child's request of the school board and with the written approval of the child's parent or guardian, any child who is 16 years of age or over and a child at risk, as defined in §118.153 (1) (a), may attend, in lieu of high school or on a part-time basis, a technical college if the child and his or her parent or guardian agree, in writing, that the child will participate in a program leading to the child's high school graduation. The district board of the technical college district in which the child resides shall admit the child.
2. Upon the child's request and with written approval of the child's parent or guardian, any - child who is 17 years of age or over may be excused by the school board from regular school attendance if the child and his or her parent or guardian agree, in writing, that the child will participate in a program or curriculum modification under par. (d) leading to the child's high school graduation or leading to a high school equivalency diploma (HSED). Prior to a child's admission to a program leading to the child's high school graduation or a high school equivalency program under 1 or 2, the child, his or her parent or guardian, the school board and a representative of the high school equivalency program or program leading to the child's high school graduation shall enter into a written agreement. The written agreement shall state the services to be provided, the time period needed to complete the high school equivalency or program leading to the child's high school graduation and how the performance of the pupil will be monitored. The agreement shall be monitored by the school board on a regular basis, but in no case shall the agreement be monitored less frequently than once per semester. If the school board determines that a child is not

complying with the agreement, the school board shall notify the child, his or her parent or guardian and the high school equivalency program or program leading to the child's high school graduation that the agreement may be modified or suspended in 30 days.

3. Upon the child's request and with the written approval of parent or legal guardian, a child 17 years of age or older shall be excused by the school board from regular attendance if the child began a program leading to a High School Equivalency Diploma (HSED) in a secured correctional facility, a secured child caring institution, secured detention facility or a juvenile portion of a county jail, and the parent or guardian agree that the child will continue to participate in the HSED program. The child must have passed at least one of the four content areas of the General Educational Development tests.

Children at risk of not graduating from high school are defined as pupils in grades 5 to 12 who are at risk of not graduating from high school because they are dropouts, or are two or more of the following:

1. One or more years behind their age group in the number of credits attained
2. Two or more years behind their age group in basic skills levels
3. Habitual truants, as defined in §118.16(1)(a)
4. Parents
5. Adjudicated delinquents
6. Eighth grade pupils whose score in each subject area on the examination administered under §118.30(1m)(am)1 was below the basic level, 8th grade pupils who failed the examination under §118.30 and 8th grade pupils who failed to be promoted to 9th grade.

Dropout means a child who ceased to attend school, does not attend public or private school, technical college or home-based private educational program on a full-time basis, has not graduated from high school and does not have an acceptable excuse under §118.15(1)(b) to (d) or (3).

Participants attending Gateway under a §118.15 contract for the High School Equivalency Program must complete all HSED requirements prior to taking GED tests.

### **Voluntary Attendance of Youth Sixteen (16) Years or Older**

Any child who is the age of sixteen (16) years or older is eligible to apply to a Gateway postsecondary program if all of the following apply:

- Gateway agrees to admit the individual.
- The individual satisfies the other requirements for admission under s.38.22(1), Technical College Admission Requirements.
- The individual has the written permission of his or her parents or legal guardian.
- The individual will not be attending Gateway during the hours of normal school day established under s.119.18(7) or 120.12(15).
- The attendance is not a fulfillment of the student's compulsory school attendance requirement.
- The student attends at the regular tuition rate charged to adult students.
- Individuals taking course(s) solely for Gateway program credit shall pay their own tuition and fees, books and other associated costs.

## Home-schooled Students

Any pupil who is under a home school agreement with the Wisconsin Department of Public Instruction and requests educational services from Gateway shall first seek assistance from the public school system. Home-schooled students may attend Gateway at the regular tuition rate charged to adult students, provided the attendance is outside of their designated home-school schedule and is not counted toward fulfillment of their home school attendance or completion requirements.

## Start College Now

Start College Now will allow public high school students the opportunity to take college courses that are not offered at their high school and that satisfy high school graduation requirements at Wisconsin Technical Colleges under §38.12(14). Students are eligible to participate if:

1. The pupil has completed 10th grade.
2. The pupil is in good academic standing.
3. The pupil notifies the school board of the school district in which the pupil resides of his or her intent to attend a technical college by March 1 if the pupil intends to enroll in the Fall Semester and by October 1 if the pupil intends to enroll in the Spring Semester.
4. The pupil is not a child at risk, as defined in § 118.153(1)(a).
5. The pupil is not eligible under § 118.153 (7t) (c) to participate in the program under this section.

The school board of the school district in which the pupil resides is not responsible for transporting a pupil attending a technical college under this subsection to or from the technical college that the pupil is attending. The school board is required to pay the technical college for the cost of tuition, course fees and books for the approved course(s). Once approved by the high school district and Gateway Technical College through the Start College Now program, the student is responsible to register for the appropriate section.

## Adding or Withdrawing from a Program

Students are responsible for keeping demographic and program of study information updated on their records. Students' programs, along with personal information, are listed in My Gateway > My Profile card and Student Planning. It is important to keep this information updated so students receive important program information and notifications.

To encourage academic progress toward graduation and to align with national Guided Pathway standards, Gateway limits the number of programs students may pursue to one (not including certificates and embedded credentials). Students who want to apply to an additional program of study must submit a request, available at [gtc.edu/forms](http://gtc.edu/forms), to be reviewed by their academic advisor. A conversation with the academic advisor to discuss the impact of adding an additional program, including a conversation around academic goals and academic plan progression, will take place. The academic advisor will approve or deny the request. Concerns related to the decision will be reviewed by the academic dean.

Students who wish to withdraw from their program(s) or withdraw from one program and add a new program can do so by completing the Program Change form available at [gtc.edu/forms](http://gtc.edu/forms). Students will be required to complete all coursework outlined on the curriculum sheet and in their My Progress sections of Student Planning, accessed via My Gateway > Registration & Schedule card, that correspond to the academic year they were accepted into the program.

## Active Program Status

Students who have no enrollment activity for one consecutive year (365 days) prior to the deactivation dates of November 1 and March 1 (based on the end dates of eligible enrolled sections) will be deactivated from their program(s). Enrollment activity includes courses required

in the program(s) a student is active in at the time of the deactivation. If a program requires electives, enrollment activity in any institutional post-secondary level course in a year (365 days prior to the deactivation dates) will prevent students from being deactivated from the program. Course substitutions will also count as enrollment activity and prevent deactivation. Taking only developmental/remedial courses in a year (365 days prior to the deactivation dates) will not prevent students from being deactivated from a program. Transfer (TR) and Proficiency (PR) credit does not count toward enrollment activity and will not prevent students from being deactivated from a program. For high demand programs that require students to complete the petition process, if the student has petitioned in the 365 days prior to the deactivation dates (Nov 1 and March 1), the petition program will not be deactivated. If the student has not petitioned, the above criteria will be followed.

To be reinstated, students must reapply to the program by completing a new Application for Admission at [gtc.edu/apply](http://gtc.edu/apply). Applicants who are reapplying must meet the program's current admission and graduation requirements. The new date of program admission will be considered the official date of acceptance.

**Note: Withdrawal from a program does not imply withdrawal from courses. See Student Services staff for course withdrawal information.**

### Readmission of Students Activated for Military Service

Students who are forced to withdraw from their educational program due to military deployment shall be readmitted to the program with their original acceptance date.

### High-Demand Programs/Petitioning

Some programs have a greater number of students than available core course seats. For such programs, Gateway Technical College utilizes a petition process where a post-admission process is used to select accepted students for upcoming core course seats. As directed by TCS 10, students selected via the petition process are chosen based on Gateway District residency at the time of petitioning. The Gateway District and in-district residency is defined as Racine, Kenosha and Walworth counties.

First priority is given to in-district residency, then Wisconsin non-district residency and finally non-Wisconsin residents. In addition to residency, students will also be selected based on the date of program acceptance. Applicants who change their minds regarding program enrollment or have their application/program status deactivated and want to return to the program will need to reapply and meet current admission requirements. They will be selected based on the most recent program acceptance date rather than the original acceptance date. Conditionally accepted students will be considered for petitioning with their acceptance date and could lose their seat if they do not provide a final official transcript.

The time element prior to selection for and enrollment in core courses varies by program and is not predictable. Further information about specific program petitioning is available at [gtc.edu/petitioning](http://gtc.edu/petitioning). Gateway must be informed of all address changes and changes for telephone or cell phone numbers. If the college does not have updated information, the result could be program deactivation or bypassing the student for openings in a program's core courses.

### Residency Qualifications

Gateway determines whether students are eligible for in-state tuition and petition selection per Administrative Code TCS 10.03. This policy is applicable to all courses whether credit, non-credit, English Language Learner (ELL) or Adult Basic Education (ABE). Determination of Wisconsin residency is based on where the student permanently resides and holds legal bona fide residence. Students must demonstrate the intent to permanently reside in Wisconsin and may not be charged in-state rates if their purpose of residing in Wisconsin is for educational purposes. A person who enters and remains in the state principally to obtain an education is presumed to continue to reside outside the state and the presumption continues in effect until



rebutted by clear and convincing evidence of residence in the state through the Residency Determination process. A visa is a permit granted to persons legally residing outside the United States (U.S.) to enter the U.S. for a specified period of time with the intent of returning to their home country. Therefore, students on visas cannot be considered Wisconsin residents for tuition purposes.

Any person who is a resident of Wisconsin/the Gateway district at the beginning of any semester for which the person applies is a resident of the state/Gateway district for admission and fees purposes. Any resident of the state who has maintained a permanent residence within the district prior to application at Gateway is a Gateway district resident for admission priority. Prior to the beginning of any semester or session for which admission is applied, a person may petition the Admissions Office for a reconsideration of a residence determination based on changed circumstances. Upon receipt of such petition, the district official charged with residence determinations shall issue a written decision within 30 days of receipt of the request. Requests should be made prior to the start of the intended term. In-district fees will not be retroactively applied.

Applicants/students who wish to have their residency status reviewed should complete the Wisconsin/Gateway Technical College District Residency Verification form at [gtc.edu/forms](http://gtc.edu/forms) and supply corresponding supporting documentation. All residency verifications must be done prior to the start of the semester in which the applicant/student attends. If verification is received after the start of the term, the new residency status will be effective at the start of the next semester.

## Remission of Non-Resident Fees for Out-of-State Residents Including Au Pairs (Out-of-State Fee Waiver)

WTCS administrative code allows Gateway to remit the out-of-state fees for a limited number of individuals who are considered out-of-state, can demonstrate financial need and demonstrate the ability to benefit from their educational experience. Au pairs are eligible for remission of out-of-state fees for up to six (6) credits or the equivalent. Additional credits/courses beyond those approved for remission are at the out-of-state rate. Remission of non-resident fees is limited and granted to those eligible on a first-come, first-served basis. Remission applications are submitted on an academic year basis. To apply, complete the Remission of Non-Resident Fees application available at [gtc.edu/forms](http://gtc.edu/forms). Registration will be at the out-of-state rate until remission is approved. Students approved for fee remission are responsible for the payment of any in-state fees (and out-of-state fees, if applicable) that are incurred. Requests should be made prior to the start of the intended term. In-district fees will not be retroactively applied.

## International Students

Gateway Technical College is authorized to issue I-20s for students to attend under F-1 and M-1 visas; however, enrollment of foreign students in the educational programs at Gateway will be based upon space availability. Gateway is not authorized to issue I-20s to students for study of the English language or for programs considered high-demand. International students are not considered Wisconsin residents and are required to pay tuition equal to the out-of-state rate.

### Conditions for Admission

- Application to technical diploma or associate degree programs that have no waiting period, waiting list or other restrictions. Please note that due to enrollment restrictions, international student applicants should view the list of programs available to them on our website.
- Verification of financial resources covering the cost of education.
- Completion of all necessary International Student Admission requirements.
- If transferring, demonstration of good standing in academics, conduct and have no debt at the sending institution(s).

- Sufficient proficiency in English to enable the student to benefit from instruction. Evidence of English proficiency may be TOEFL or IELTS scores that meet Gateway's minimum requirements.

### Procedure

An international student seeking to be admitted to Gateway Technical College (excluding those attending under exchange programs and Contract for Service agreements) shall:

1. Submit a completed application with an application fee.
2. Complete International Student admission documents:
3. Declaration of Financial Resources or certification of finances documenting funds to cover education for the length of the program.
4. International Student Questionnaire/Emergency Contact form
5. Transfer Clearance form (if transferring from another U.S. school)
6. TOEFL score of 500+, 180 (CBT) or 64 (IBT) or earned a score of 5 or higher on the IELTS or written documentation that the applicant is from an approved English-speaking country. A list of countries that are excluded from the TOEFL testing can be found at [gtc.edu/internationalstudents](http://gtc.edu/internationalstudents).
7. Submit official evaluation of high school and/or college transcripts. Evaluations must be provided directly from a recognized educational evaluation service.
8. All first semester students are required to pay an initial down payment of \$2,400 before/on the date of orientation. This \$2,400 goes towards your overall semester charge for tuition and fees. The only exceptions are:
  - Students attending under Section 38.14(3) of the Wisconsin Statutes where Gateway has entered into a Contract for Service with a foreign government or business not operating in Wisconsin.
  - Those enrolling under Administrative Bulletin 04-03, Exchange Agreements with Foreign Educational Institutions.
9. Upon completion of all above admission requirements, an I-20 will be issued to the student.
10. When the student arrives, they will be required to submit a copy of their visa, take the placement test and complete an Agreement of Attendance and Program Completion. International students interested in applying for admission should visit [gtc.edu/internationalstudents](http://gtc.edu/internationalstudents).

### Reciprocity Agreements with the College of Lake County (CLC) and McHenry Community College (MHCC)

Through an agreement between Gateway Technical College, CLC and MHCC, students may be able to attend approved programs in their neighboring state at the in-state rate. Students participating under the terms of these agreements must be accepted to an associate degree, technical diploma or certificate approved by the receiving college under the agreement. These students are not considered district residents for high-demand program petition selection purposes. Illinois students interested in this option should contact the appropriate official at the college in their home county. Gateway Technical College district residents should contact the Admissions Office at Gateway Technical College. Individual courses and transfer programs are not covered by this agreement. For further information regarding our current agreements, please visit [gtc.edu/admissions/cooperative-reciprocal-agreements](http://gtc.edu/admissions/cooperative-reciprocal-agreements).

### Reciprocity Agreement with Minnesota

Wisconsin has a reciprocal agreement with Minnesota. Individuals from Minnesota who wish to attend Gateway may do so at in-state tuition rates by completing a Residency Determination Verification form and submitting Minnesota residency verification (same as for Wisconsin). These students are not considered residents for high demand program petition selection purposes.

### Wisconsin Employer Authorization

Illinois residents working for Wisconsin employers are eligible for in-state tuition rates at Gateway Technical College upon completion of the request form by the student and employer and review of the college. The student assumes responsibility for payment of fees. Students can apply by completing the Request for In-State Tuition-Wisconsin Employer Authorizations form found at [gtc.edu/forms](http://gtc.edu/forms). Request forms are submitted on an academic year basis. Registration will be at the out-of-state rate until remission is approved. The request form must be submitted prior to the start of the intended enrollment semester. In-district fees will not be retroactively applied. Students approved for fee remission are responsible for the payment of any in-state fees (and out-of-state fees, if applicable) that are incurred. Students utilizing the Request for In-State Tuition-Wisconsin Employer Authorization process to be eligible for in-state tuition rates are not considered district residents for high demand program petition selection purposes.

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# Academic Planning, Advising and Registration

## Academic Advising

Gateway Technical College offers a staff of highly trained and experienced academic advisors in each program area. Academic advisors are available to provide new and continuing students with information about academic programs, curriculum requirements, transitioning to college, college expectations, college success tools and assistance with course selection. Academic advisors are the primary contact for new students regarding all things academic planning, such as creating a plan, registering, adding/dropping courses, transferring to another program or college, withdrawing or any other academic matter.

We strongly encourage all new students to meet with the academic advisor for their program prior to beginning coursework. To a new student, the advisor is the primary source of academic advice, college preparation and assistance in interpreting placement test results, providing an overview of their program and helping complete an initial course schedule along with an academic plan. To the continuing student, the advisor is able to update students on their progress in their program, review graduation requirements, assist with updating academic plans and provide encouragement, guidance and referrals as needed. Advisors are available for both in-person and virtual appointments, phone, email or during various walk-in opportunities in the Student Services Center on the Elkhorn, Kenosha and Racine campuses.

## Role of the Student in Advising

It is the responsibility of the student to consult an advisor regarding academic information and concerns that may affect the student's academic progress. While Gateway's advisors are here to guide and assist students towards completion of their program, it is ultimately each student's responsibility to fulfill their degree requirements. Students will be assigned advisors based on the most recent program they are admitted to. If an embedded degree was added after the highest level degree, the student will remain assigned to the highest level degree. Students may set up an appointment with an academic advisor at 1-800-247-7122 or through MyGateway under the My Profile card.

## Role of the Faculty Advisor

Faculty members from each program serve as faculty advisors to continuing students. Students will be assigned a faculty advisor upon completion of 30+ program credits towards an associate degree or 15+ program credits towards a technical diploma. Faculty advisors are available via email, phone and during faculty office hours throughout the year. Faculty advisors bring a unique wealth of knowledge to share and are eager to help guide students by providing specialized individual assistance specific to each academic program for academic planning, course recommendations and detailed program information, as well as general guidance and support to help continuing students progress towards graduation.

## Contact Your Advisor

Students are able to look up contact information for their academic and faculty advisor through their My Gateway account. This will provide a student with the phone number and email address for their designated advisor. To locate this information:

- Log in to My Gateway.
- If you are assigned to an Academic Advisor, locate the My Profile card. Under Schedule Appointment, click on your Academic Advisor's name. This link will take you to their online booking page.
- If you are assigned to a Faculty Advisor, locate the Success Team card. Your Faculty Advisor will be listed along with their contact information. If you are working with other support systems on campus, you will find their name on this Success Team card too.

## Registration Information

Registration is the process of enrolling in courses. Dates, hours and instructions for registration are available each semester at [gtc.edu/registration](http://gtc.edu/registration).

- Students must be officially registered to attend class(es).
- Students must be officially registered in order to receive credit for class(es).

Gateway Technical College encourages all students to register as early as possible for the best course selection. Students find their first date to register for the next term on My Gateway > When Can I Register card or at [gtc.edu/regdates](http://gtc.edu/regdates).

Academic planning guidance and assistance is available from faculty advisors and academic advisors.

## Registration Requirements

To complete registration for classes, students must:

1. Register via My Gateway > Registration & Schedule card or submit a completed registration form in person with photo identification at any Student Services Center.
2. Note: Students who are non-degree seeking or who are registering prior to being accepted to a program and who are new to Gateway will need to create an account. On [gtc.edu](http://gtc.edu), click on My Gateway and follow the "Need to create a Student Account?" link.
3. Have met class requisites and be accepted to the program, if applicable. (Some courses require program acceptance prior to registration.)
4. Make payment or payment arrangements.
5. Have no outstanding debt. Students may register with a debt if:
  - a. The debt is from the previous semester and is not more \$200 OR
  - b. The student has a third-party payer authorization in place with the Student Accounts Office or financial aid funding in place that will pay at least 95% of the tuition and fees of the course(s) for which the student is registering AND the student has a payment arrangement in place for the outstanding debt.

**Note: Students who have any outstanding debt will not be able to receive their transcript or diploma.**

## Priority Registration

Students who are accepted to a postsecondary program are eligible to register during the priority registration period. A continuing program student is given a priority registration date based upon the number of credits the student has completed. Newly admitted program students may register during New Program Student Registration. Students not accepted into a postsecondary program register during the open registration period, which occurs after the opportunity for all postsecondary program students. Students attending Gateway Technical College under the Start College Now program register during the open registration period regardless of whether or not they have been accepted into a postsecondary program.

Students find their first date to register for the next term in My Gateway > When Can I Register? card. If you do not have this card on your saved cards, you can find it by going to discover and typing “When Can I Register?”

## Service Member Priority Registration

Wis. Stat. §38.12(12) provides that priority registration be granted to eligible service members attending a Wisconsin technical college. Eligible service members include those who have served or who are serving on active duty under honorable conditions. In accordance with the law, Gateway Technical College allows eligible service members (not including dependents) to register one day prior to their standard registration date. For details, see [gtc.edu/priority-registration](http://gtc.edu/priority-registration).

## Disability Support Services Priority Registration

Priority registration provides the opportunity to prepare a schedule (to the greatest extent possible) of courses based on certain disability-related needs. Priority registration does not waive any course or program requirements, such as prerequisites and program restrictions. Courses are available on a first-come, first-served basis. Students must demonstrate that they would be denied equal access to the curriculum due to their documented disability without priority registration. Only a small percentage of students with disabilities qualify for priority registration. Priority registration does not guarantee the provision of classes at specific times or availability of course sections. For details, see [gtc.edu/priority-registration](http://gtc.edu/priority-registration).

## Prerequisites and Corequisites

A prerequisite is a required course which must be successfully completed before a student can register for an advanced course. Most courses require a minimum D- grade to be earned in the prerequisite, however, some courses require a higher minimum grade.

A corequisite is a class which must be completed prior to or at the same time as the selected course.

Please see course description information for prerequisite and corequisite requirements. Students should become familiar with the prerequisite and corequisite requirements of their program courses. Not following these requirements can result in the need for extra semesters of work to complete graduation requirements.

Credit for prior learning may help some students meet required prerequisites and corequisites. Students who believe they have learning obtained through work experience or training that may qualify for enrollment in an advanced course should discuss the situation with their academic advisor or visit [gtc.edu/cfpl](http://gtc.edu/cfpl) for more information.

## Electives

Some programs require elective credits for graduation. Electives allow students some flexibility in choosing courses within their program curriculum. Elective courses may be chosen from the wide variety of classes offered each semester. Students in associate degree programs should be sure that their electives are at the associate degree level. Students should check with their faculty advisor or an academic advisor if they need assistance determining the academic level of courses.



## Alternative Course Delivery Definitions

As you register for courses, you'll see these terms within course sections to describe how each course will be held. Find detailed descriptions of each term used below.

**Accelerated (AC)** - This course provides the same instruction as a standard course, but moves at a faster pace and meets for fewer weeks. Most of the learning activities will be individual or group projects outside of class meetings. Substantial work outside of class is required.

**Blended (BLND) or Hybrid (HYBD)**- This course will combine in-person and online instruction. Online instruction may include online learning activities and/or video conferencing. There are set meeting days, times and locations (campus or online) for part of the class.

**Blocked (ST & SP)** - This course will take place at the same time as other courses in a shared lab or class setting. Students can choose when to attend and participate in instruction during the scheduled times. Activities will have deadlines during the semester. Students can take more than one course in the same block.

**Self-Paced (SP)** - This course must be completed between the start and end dates. Each student can work as quickly or slowly as desired, as long as the final deadline is met.

**Online (iNet)** - 100% of learning activities are delivered via online classroom and don't require students to be together at the same time. Students choose the day and time to complete readings and assignments in order to meet weekly deadlines.

**Online Synchronous (OSYNC)** - 100% of instruction is delivered online via a video conferencing platform. There are specific dates and times for students to attend class online.

**On-demand (iNet)** - New sections start most weeks and students can register and enter the course during any start week. Each student follows a specific academic plan based on their start date, and the courses may not follow the traditional semester start and end dates.

**IP Video Conferencing (IPVID)** - ITV (Interactive Television) classes allow students to be live in front of an instructor, either via video or in-person. Approved remote locations allow students to join a live class that is being held on campus. Remote locations will have video and audio available so students can participate, just as if they were in the same classroom as the instructor. These are real-time live video classes, so students can ask questions and participate in lectures.

## Financial Aid Census Date

The amount of financial aid funding a student is eligible to receive will be based on the fundable number of credits in which the student is enrolled and attending on the Census Date (the 14th calendar day of each semester). After this date:

- Adjustments will not be made for additional enrollment
- Financial aid offers may be recalculated for classes with no attendance and/or
- A repayment may be charged for all or a portion of funds received

Gateway highly encourages students to register for all classes for a semester prior to the Census Date.

## No-Shows

If a student does not attend class, they are not eligible to receive financial aid for the class. If an instructor drops a student from the class they are teaching due to the student being a "no-show," there is no refund of tuition and fees; however, the Financial Aid Office is required to adjust financial aid based on actual credits.

## Changes in Registration

In accordance with add and drop timelines, changes to a schedule may be made via the My Gateway Registration and Schedule card, or in person with photo identification at any Student Services Center. Review your schedule to verify that your transaction was submitted and your schedule reflects the change. A student wanting a third party to complete any transaction on their behalf must provide the third party with the appropriate signed document. The third party must provide their photo identification, along with their phone number, relationship to the student and a signature.

### Adding a Class

A student may add a course online or in person with photo identification up to the end of the first day of class, provided the class capacity has not been reached and all registration requirements have been followed. After the first day, the student must contact the instructor and request authorization to add the course. Add Authorization is not guaranteed and is at the discretion of the instructor. Once Add Authorization is entered by the instructor, the student must officially register for the class online or in person before the end of the Add/Drop period.

The student is responsible for any and all missed coursework, materials and assignments. Refunds for students who enter a class late and subsequently drop will be calculated based upon the start date of the class, not the date the student registered for the class. Confirm your transaction by reviewing your class schedule.

You are not eligible to receive credit for the class if you are not registered; you may not attend a class unless you are officially registered for that class.

Financial aid offers will not be adjusted if the class is added after the semester Census Date.

### Waitlists

Waitlists are offered for the majority of post-secondary course sections. If a course section is full, students may join a waitlist via the registration process or in person with photo identification at any Student Services Center. Register or be added to a course section waitlist via the My Gateway > Registration and Schedule card. During the registration process, you may join the waitlist for the full class.

### Waitlists - Seat Available Notification/Registration Requirements

1. If a seat becomes available in a class for which a student is waitlisted, a message telling the student that they have permission to register will be sent to the student's Gateway email account.
2. The seat will be held for the student until 11:30 p.m. the next day.
3. If the student does not register for the class within that time frame, the permission to register will expire and the seat will automatically be offered to the next eligible student.
4. When a student with a Permission to Register is registering for an available seat in a waitlisted class, all standard registration procedures apply, e.g. requisites must be met, capacity limits must be observed, late registration rules still apply, etc.

### Waitlist Process Notes

- Students must meet normal registration requirements in order to join a waitlist, e.g. have met requisites, have instructor consent, etc.
- A student already registered for a course may not be added to a waitlist for an additional section of the same course, i.e. if already registered for an 801-136 class, a student cannot go on a waitlist for another 801-136 section.

A student may only waitlist for one section of a course.

## Waitlist Closing Info

- Waitlists close (become inactive) at 11:55 p.m. the night before the first day of the class. The last “Permission(s) to Register” will be issued at 11:50 p.m. that night and will expire at 11:30 p.m. the first day of class if the student does not register.
- See the Adding a Class section above for information about registering for a class that has started.

## Dropping a Class

A drop is student-initiated. A student may drop a class without a letter grade up until 20% of the class meeting times have elapsed. In order to drop a class, a student must complete a drop via the My Gateway Registration and Schedule card or by submitting a completed Drop Form in person with photo identification at any Student Services Center. The drop is not complete until it is processed in My Gateway > Registration & Schedule card or the Drop Form is received and processed by the Student Services Center. Confirm your transaction by reviewing your class schedule via the My Gateway > Registration and Schedule card.

Nonattendance or notifying the instructor that the student will not be attending does NOT constitute a drop. When a student registers for a class, the student owes the corresponding tuition and fees. Students who plan to drop a class should do so immediately. A single day can make a significant difference in the amount of the refund. Drop deadlines are printed on a student’s class schedule and are strictly enforced. For information regarding refunds, please see “Refund Policy” in the “Paying for College” section of this handbook. A student who is a financial aid recipient should be aware that dropping a class may affect their financial aid offer and account balance with the college. If a class is dropped, the financial aid offer will be recalculated based on the remaining eligible credits. Dropped classes will be monitored throughout the entire semester. Dropped classes are considered course attempts and are used to calculate satisfactory academic progress for financial aid purposes. If students have questions on how dropping a class may affect their financial aid offer, they should contact a Student Finance Specialist prior to dropping the class.

Refunds to employers, agencies or institutions for students dropping contract for service classes are governed by the terms of the contract. Contact the Business and Workforce Solutions department for further information about employer contracts. Contact the High School Partnerships department for further information regarding high school contracts.

## Withdrawing from a Class

Withdrawals occur after the refund period; there are no refunds for withdrawn classes. A student may withdraw from a course with no change to their GPA up until 80% of the class time has elapsed. Submit the withdrawal form found at [gtc.edu/forms](http://gtc.edu/forms) under Registrar Forms > Course Withdrawal Form. A grade of ‘W’ will be recorded on the student academic record. A student who stops attending a class after the refund period without withdrawing receives an F grade. Withdrawn classes are considered course attempts and are used to calculate satisfactory academic progress for financial aid purposes. Because of this, withdrawing from a class(es) may affect the student’s financial aid offer or veteran’s education benefits. Students are recommended to contact a student finance specialist before withdrawing to learn more about any impacts to their funding.

**Note: Withdrawal from classes does not imply withdrawal from the academic program. To withdraw from a program, go to the My Gateway My Program(s) card. A student may also submit a Program Withdrawal Form, in person with photo identification at a Student Services Center.**

## Class Cancellations

Gateway reserves the right to cancel any scheduled class. Refunds are issued for canceled classes. Students are encouraged to work with their academic advisor or faculty advisor in making alternative class selections.

## Combining Class Sections

Gateway reserves the right to combine class sections as a result of insufficient enrollments. If this occurs, every effort will be made to notify the student prior to the start of the class. The student's class schedule can be viewed via the My Gateway > Registration and Schedule card.

## Auditing a Course

At times, a student may wish to attend a class without receiving a grade or credit. To do so, the student must register to audit the course. The tuition and fees are the same, whether the student is auditing the course or taking it for credit. (Information regarding the fee waiver for senior citizens auditing postsecondary courses follows.) A student must officially change their audit status within the first 20% of class. At the completion of the course, the student will receive a grade of AU (audit). A student who is auditing a course may not change their enrollment in the class to credit seeking or vice versa after the first 20% of the class has passed. Courses that are graded on a pass-fail basis only may not be audited.

To register for a course with an audit status, students can complete a Registration Form found at [gtc.edu/forms](http://gtc.edu/forms) and include the word "Audit" in the Credits field or register for the course online and complete the following steps to change the audit status of a course. To change a registered course to or from audit status, students can complete a Course Audit Status Form found at [gtc.edu/forms](http://gtc.edu/forms) before the end of the add drop period (first 20% of the class).

## Course Auditing Notes

- Audited courses do not satisfy course requisites or program requirements and are non-transferable.
- Audited courses do not count as course-load credits for the calculation of enrollment status.
- Audited courses do not count as enrolled or successfully completed credits for calculation of Satisfactory Academic Progress.
- Audited courses do not qualify for financial aid or payment plans.

## Senior Citizen Audits of Postsecondary Courses

Wisconsin residents 60 years of age or older on the start date of the class may audit an associate degree or technical diploma course without paying the tuition portion of the class fee, provided space is available. This is a significantly reduced rate. Only non-tuition fees, such as material, activity and other miscellaneous fees will be charged. The processes for a senior citizen to register or change the status of an audited course are the same as above. If a senior citizen wants credit for the course, regular registration procedures and charges apply. The purpose of offering courses on a senior citizen audit basis is to offer opportunities for a student to take a course for personal enrichment, not to support pursuing a credential. If the instruction provided at Gateway leads to earning a credential, the courses must be paid for on a credit-seeking basis.

## Senior Citizens and ACE Classes

Wisconsin citizens 62 years of age or older on the start date of the class may take Adult Continuing Education (ACE) classes at a significantly reduced rate. A student in this category is not charged tuition for the class, only non-tuition fees, such as material, activity and other miscellaneous fees will be charged. Courses with special tuition charges will be charged at those alternative tuition rates (e.g. traffic safety or firefighter classes). Please contact Student Services for information.

### Student Enrollment Status

Student enrollment status is determined by the number of credit hours for which a student is registered. A full-time student is defined as one who is enrolled in 12 or more credit hours in a semester. A part-time student is defined as one who is enrolled in less than 12 credit hours in a semester. Enrollment verifications reflect the student's enrollment status at the time the verification is completed.

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## Paying for College

Gateway Technical College believes that the opportunity for a college education should be within the reach of all interested individuals. To that end, Gateway offers a variety of payment options, including cash, check, credit card, financial aid, third-party authorizations, Veteran Education Benefits, scholarships and a Gateway student payment plan.

A formal payment arrangement must be selected by 11:59 p.m. on the day of registration to avoid being removed from your class(es). If the classes for which you are registering have already started and you are using the late registration process, you will remain registered and be responsible for all charges.

Gateway has formal payment arrangements that will allow you to remain registered in your classes. Payment arrangements include:

- Gateway Student Payment Plan - no fee or down payment required
- Awarded financial aid
- Third party funding source, such as employer or agency authorization
- Veteran Education Benefits
- Scholarships
- Payment in full

### Tuition and Fees

Gateway Technical College's tuition and fee structure is established in accordance with the Wisconsin Technical College System and state statutes. Tuition and fees may vary annually and are subject to change. In addition to the tuition and fee charges for a course, students are responsible for other costs, such as books, equipment, uniforms, etc.

Out-of-state students pay additional tuition charges (see Residency Qualifications for more information).

The Student Accounts department maintains your account at Gateway Technical College. For the most up-to-date tuition and fee information, please visit: [gtc.edu/tuition](http://gtc.edu/tuition).

### Financial Aid and Eligibility

Financial aid is financial assistance to help students meet their educational costs. The Gateway Technical College Financial Aid Office administers a comprehensive program of federal, state and college grants, work-study and loan programs to provide assistance to students in funding their education. Gateway uses the Free Application for Federal Student Aid (FAFSA) to determine if a student is eligible for federal grants, student and parent loans, work-study and state grants. The FAFSA is available at [studentaid.gov](http://studentaid.gov). Students may apply for the upcoming year beginning December 31 of the year before they plan to attend. Gateway's academic year begins with the Summer Semester.

Please note: You must fill out the FAFSA completely and accurately. If you receive federal student aid based on incorrect or fraudulent information, you will have to pay it back.



Financial aid is made available to students who are eligible according to specific state and federal regulations. All eligible students must:

- Be accepted to an aid-eligible program before an award can be determined
- Be a U.S. citizen, an eligible non-citizen or a permanent resident of the United States
- Demonstrate financial need as determined by Gateway's Financial Aid Office through the Financial Aid Application (FAFSA) process
- Not be in default on any educational loan or demonstrate an unwillingness to repay any educational loan and/or owe any overpayment to Gateway Technical College or the U.S. Department of Education
- Be in compliance with Selective Service regulations
- Be enrolled at least half-time status to receive most types of financial aid
- Maintain Financial Aid Satisfactory Academic Progress (SAP) as defined by Gateway's Financial Aid Office
- Participate in Loan Entrance/Exit Counseling if award includes loan
- Students must have a high school credential or meet State ATB requirements (e.g. high school diploma, GED, HSED)
- Only receive aid at one college per semester

There are three major types of aid available to Gateway students. They include:

- Grants (do not have to be repaid unless a student stops attending during the term. See information on Return of Title IV funds)
- Student loans (must be repaid)
- Student employment (students who work and earn money to help pay for college)

Information about the specific types of grants, loans and student employment available may be obtained at [gtc.edu/financialaid](http://gtc.edu/financialaid). Financial aid information may be subject to change at any time due to change in federal, state or sponsoring agency regulations.

### Financial Aid Communications

Communication in regards to the processing of the Free Application for Federal Student Aid (FAFSA) and any resulting financial aid offer/eligibility information will be sent to the student's Gateway Technical College student email and located in the "Required Documents" section of My Gateway. It is the responsibility of every student applying for or receiving aid to check both of these locations on a weekly basis throughout the academic year to ensure that all relevant financial aid requirements and deadlines are met in a timely manner. This includes periods when school is not in session, as changes to student eligibility may occur during these times, such as when final grades are issued after the end of the semester. Failure to check student email and the "Required Documents" section of My Gateway on a regular basis could result in the delayed receipt of important information regarding financial aid requirements and the loss of financial aid eligibility.

If a student is offered funds through the Federal Student Aid program at Gateway Technical College, offers will be made available in the "Offer Letter" section of My Gateway > Financial Information. Students may view or print this letter at any time for their records. If a student requires assistance viewing and/or printing their offer letter, they can call 1-800-247-7122 or visit the nearest Student Services Center for assistance. The Financial Aid Office does not print or mail offer letters to students, parents or third parties.

## Census Date (Date of Record)

In accordance with federal regulations, the Financial Aid Office will recalculate federal, state and institutional offers based on the enrollment status as of the published census date. The census date is set by the college and is the 14th calendar day of each semester. Official census dates for the current academic year can be found at [gtc.edu/important-dates](https://gtc.edu/important-dates). On this day, the college takes a “snapshot” of all students’ enrollment, which becomes the official enrollment that is used for both state reporting and financial aid eligibility. After this date:

- Adjustments will not be made for additional enrollment.
- Offers may be recalculated or canceled for courses with nonattendance.
- If classes are canceled or if a course is dropped that has not started, students may owe repayment of aid which was not earned.
- Students enrolled only in remedial/developmental coursework are not eligible to receive aid.
- Students must be enrolled and attending at least six credits in order for their student loans and state grants to be disbursed.

Classes that students are enrolled in and attending as of census date will determine the amount of financial aid they receive. If a student is enrolled and attending less than full-time (12 post-secondary credits) as of the census date, awarded aid will likely be less than what was reported in an initial offer letter or email. This difference is because students’ initial offers are based on the expectation of full-time enrollment. Financial aid is then adjusted after the census date to reflect students’ actual enrollment. Gateway highly encourages students to register for all courses (including late classes) for a semester prior to the census date.

## Consortium Agreements

Consortium agreements are written agreements between two or more eligible schools. If a student is taking classes at Gateway Technical College (as the home school) and would like to take a class or two at a different school (as the visiting school), their financial aid can potentially be adjusted to include the credits being taken at the visiting school. For more information regarding Consortium Agreements, please visit: [gtc.edu/student-services/financial-aid/consortium-agreements](https://gtc.edu/student-services/financial-aid/consortium-agreements).

To request a Consortium Agreement Form or more information, please use your Gateway student account to email the Financial Aid Office at: [fao@gtc.edu](mailto:fao@gtc.edu).

## Financial Aid Satisfactory Academic Progress (SAP) Policy

The Department of Education - Federal Student Aid program requires that schools maintain Satisfactory Academic Progress (SAP) policies in order to ensure that students are progressing successfully through an academic program as a condition of receiving financial aid. This means a school must calculate and monitor a student’s grade point average (GPA) and completion rate percentages. If a student cannot meet SAP standards, they risk losing financial aid eligibility at Gateway Technical College.

### SAP is Updated After Qualifying Events

A student’s financial aid SAP status is calculated after different qualifying events. This can include the receipt of a student’s FAFSA, acceptance into a financial aid eligible program of study as well as at the end of each semester (payment period) if a student has submitted a FAFSA and attempted coursework. Students that have not met the Satisfactory Academic Progress (SAP) criteria as outlined in this document are notified via their student email account.

## Student SAP Status and Updates Found on My Gateway

Students can find their SAP Status by logging in their My Gateway account and clicking in the Financial Aid Card. For complete information related to Gateway Technical College's Financial Aid Satisfactory Academic Progress (SAP) Policy, please visit [gtc.edu/financial-aid](http://gtc.edu/financial-aid). This policy is subject to change at any time, should the Department of Education federal regulations require it.

## Satisfactory Academic Progress (SAP) Criteria

To maintain financial aid eligibility at Gateway Technical College, students must meet all Satisfactory Academic Progress (SAP) criteria as outlined below. SAP requirements are measured using both term and cumulative results.

- Minimum 2.0 Term Grade Point Average (GPA)
- Minimum 67% Term Completion Rate
  - Term completion rate is calculated using the credits completed divided by credits attempted
- Minimum 2.0 Cumulative Grade Point Average (GPA)
  - Cumulative GPA is calculated on all credits attempted at Gateway.
- Minimum 67% Cumulative Completion Rate
  - Completion rates are calculated using all credits completed at Gateway and transferred to Gateway divided by total credits attempted
- Cannot be Meeting the 150% Duration Limit (M150%)
  - More information found in the SAP Status - M150 section

## Academic Record and Financial Aid Office SAP Calculations Are Different

The way a college calculates a student's academic record is different from the measurements used to determine financial aid eligibility. For example, a college may not include a course withdrawal on an official academic transcript but a Withdraw (W) will impact SAP GPA and completion rate calculations that impact financial aid eligibility.

## Included Grades

In most instances, a students' complete Gateway Technical College academic record is used to determine if each student meets SAP requirements as outlined in this document.

Unlike a student's Academic GPA and/or completion rate, most all attempted coursework is included in calculations involving SAP for financial aid eligibility. This means that courses with a final grade of F, U, W, WF or WP, DX, D-X, D+X, FX are included in these calculations as non-completions with zero grade points (this is the same as receiving a final grade of "F" in a course).

## Transfer Credits

All credits transferred to Gateway Technical College, including those attempted without the use of financial aid, are included in Gateway SAP cumulative completion rate calculations. This means transferred courses count as attempted and completed credits but do not impact SAP GPA calculations.

## Remedial and Developmental Courses

Remedial and developmental courses are also included in SAP calculations. All repeated courses (R) are included as the final grade or status that were earned for each attempt. Earning a better letter grade for retaking a course will not delete or replace the first attempt from being included in SAP updates.

## Incomplete Grade(s)

Grades of Incomplete (I) are excluded from SAP calculations until such a time that a final grade is issued. An Incomplete grade has no impact on that semester's SAP calculations. Once a final grade is issued, and the Incomplete is replaced with a letter grade, the results will be included in the next cumulative result of any and all subsequent SAP calculations.

## Pass / Fail Grades

Courses with grades of Pass (P) or Fail (F) are included when calculating term and cumulative completion rates. Pass or Fail grades have no impact when calculating semester or cumulative GPA results.

## NG - No Grade Policy

A grade of NG (No Grade) is given if a student drops a course during the add/drop period. Courses resulting in an NG grade are not included in SAP calculations. The NG policy was updated effective September 27, 2021. Before this date, NG grades were/are included in SAP calculations and processed as a non-completion with zero grade points (the same as an earned F).

## Financial Aid Statuses

The Gateway Technical College Satisfactory Academic Progress (SAP) Policy resembles a three strike process. While a student is meeting all SAP requirements, they remain in a Satisfactory (SAT) SAP status.

### Satisfactory (SAT)

Students meeting all SAP requirements remain in Satisfactory (SAT) status. The first time a student does not meet a SAP requirement, their SAP status is escalated to Financial Aid Warning (FAW) status.

### Financial Aid Warning (FAW)

Students failing to meet SAP criteria will automatically be placed in Financial Aid Warning (FAW) status. Students in Financial Aid Warning status remain eligible to receive financial aid the following term(s). Students in Warning status are not restricted in the number of credits they may take, but must meet all SAP criteria as outlined above in all future terms to avoid being placed in Suspension - Need Appeal (SNA) status.

### Suspension – Need Appeal (SNA)

Students in Financial Aid Warning status who fail to meet all satisfactory academic progress criteria will be placed in Suspension - Need Appeal (SNA) status.

Students in Suspension - Need Appeal status may complete a SAP Appeal Plan form and appeal to have their aid eligibility reinstated. Students in SNA status choosing not to file a SAP Appeal Plan form must meet all satisfactory academic progress criteria listed in order to be eligible to receive any further financial aid. If a student's SAP Appeal Plan is approved, they are placed in Approved Appeal Plan (AAP) status.

***Note, if a student is SNA and at the end of a term is now meeting all SAP requirements, with no prior approved sap appeal on file, the SAP status is moved from SNA back to FAW, student can appeal in future if needed.***

### Approved Appeal Plan (AAP) - SAP Appeal Approved

Students who submit the SAP Appeal Plan and are approved are placed in SAP - Approved Appeal Plan (AAP) status. These students must follow the terms of their approved SAP Appeal Plan. These term requirements include:

- Achieving a minimum 2.0 term Grade Point Average (GPA) in all future terms
- Achieving a minimum 67% term completion rate in all future terms

- Taking only courses required to complete the current active program listed on the approved SAP Appeal Plan form
- Any and all other criteria as outlined on the SAP Appeal Plan Form

Students are not allowed to be approved a SAP Appeal Plan more than once. Students in Approved Appeal Plan (AAP) status are strongly encouraged to meet with their academic or faculty advisor to ensure that they are only taking required coursework. Students in the Approved Appeal Plan status that do not meet the AAP SAP criteria outlined above will be placed in Financial Aid Suspension (FAS) status.

### Financial Aid Suspension (FAS)

Students are placed into Financial Aid Suspension (FAS) status if they fail to meet the following requirements:

- The student completed a SAP Appeal Plan and it is Denied
- The student had an Approved SAP Appeal Plan (AAP), but did not meet the term SAP requirements going forward

Students in the Financial Aid Suspension (FAS) status are not eligible to receive financial aid and are not eligible to appeal. Students in Financial Aid Suspension (FAS) status may regain financial aid eligibility if they complete financial aid eligible coursework with alternate funding sources and meet all Satisfactory Academic Progress criteria. Students that meet this criteria will be sent an SAP reinstatement notification email and will be eligible to receive aid the following term. Students that have had their financial aid eligibility reinstated as a result of meeting SAP requirements and do not meet all Satisfactory Academic Progress criteria in any subsequent term will immediately be placed back in Financial Aid Suspension (FAS) status.

### Duration of Financial Aid Eligibility - Meeting the 150% Rule (M150%)

Students that have attempted 150% of the published credits for their current active program, as listed on their program curriculum requirement sheet, will immediately become ineligible for financial aid and will be placed on Financial Aid Suspension - Meeting the 150% Rule (FASM150).

All credits that a student has transferred to Gateway Technical College, as well all credits attempted at Gateway Technical College, count toward the 150% limit. All attempted credits are included in this calculation regardless of:

- Program status
- Program(s) being pursued
- Financial aid received/not received
- Length of time since the credits were attempted

The maximum duration of financial aid eligibility is calculated by taking the number of credits required to complete the current, active program requiring the most credits and multiplying by 150% (1.5). For example, a program requiring 70 credits to complete would have a maximum duration of eligibility of 105 credits. This is because  $70 \text{ credits} \times 150\% (1.5) = \text{a maximum of } 105 \text{ credits}$ .

### Multiple Programs

The maximum duration of eligibility for students active in more than one program is calculated using the active program requiring the most credits to complete. It is not calculated on the basis of multiple programs. Gateway policy states that a student may only be active in one financial aid eligible program at a time.

Students who meet or exceed the 150% limit for a certificate or technical program, who are subsequently accepted into a larger associate program, must notify the Financial Aid Office to have financial aid eligibility reassessed under the SAP policy. Students that remain in the M150% status as of the census date for a given semester are ineligible to receive aid for that semester.



REQUIRED CREDIT for Program	150% of that program's credit
70	105
69	104
68	102
67	101
66	99
64	96
61	92
44	66
33	50
32	48
28	42
27	41
17	26

### **M150 Suspension Appeal (M150 Appeal)**

Students exceeding the maximum duration of financial aid eligibility (M150% Rule) as outlined are eligible to complete the M150 Appeal form. Open appeal periods and dates can be found on the Financial Aid Office > Important Dates page.

Students meeting the Maximum Time Frame Limit (M150%) will be marked as Financial Aid Suspended (FASM150) at the end of every semester. Students in this status will need to complete a new M150 Appeal form at the end of every term. Financial Aid Suspension - M150 status students will automatically receive an email notification directing them to complete the M150 Appeal form at the end of every term.

Just because an M150 Appeal was approved in the past, it does not guarantee the approval of subsequent appeals. Appeals are approved based on the student's explanation of extenuating circumstances, number of credits needed to graduate and prior term(s) grades. There is no limit to the number of M150 Appeals a student may be approved for.

If an M150 Appeal is approved, it only reinstates financial aid eligibility for one term. Regardless of completed coursework and grades earned after this appeal is approved, a student who exceeds the maximum number of allowed attempted credits will always be suspended after a term ends. These students will need to complete an appeal after every term.

The M150 Appeal policy was published effective 12/11/2021. There is no retroactive process to allow FASM150 students to appeal prior to the Fall 2021 term.

### **Financial Aid Disbursement and Eligibility Policy**

If a student receives federal and/or state funding, their funds will be applied to their student account. Students are able to charge certain expenses to this account. Expenses include tuition, fees and bookstore charges. After courses begin and a student's attendance is verified on the census date, Gateway Technical College will apply a student's accepted financial aid offers to their account. If a student's accepted aid is in excess of the balance on their student account, a refund will be issued to the student (for more information, please see the BankMobile section below). Financial aid offers are based on enrollment levels. Up-to-date aid information may be

viewed on My Gateway. Please check the important dates calendar online for disbursement date information: [gtc.edu/important-dates](http://gtc.edu/important-dates).

Gateway Technical College makes multiple disbursements of student loans each semester. If students are receiving loan funds, half of their loan for each eligible semester will be applied to their student account on the first disbursement date, and the second half will be applied to their student account on the second disbursement date. This does not apply to grant disbursements. Students must be enrolled in and attending at least six credits for each loan disbursement to be made.

Students due a federal loan refund will follow one of the following scenarios:

- If the first disbursement of the loan funds is enough to cover all remaining charges at Gateway and a refundable balance exists after the first disbursement is made, students will receive a portion of their refund on the first disbursement date and then a second and final portion of the refund on the second disbursement date, or
- If the first disbursement of loan funds was not enough to cover all remaining charges at Gateway, students will receive a refund on the second disbursement date.

The dollar amount and timing of refunds are dictated by each student's particular balance due and accepted financial aid offers. Students should review their aid offer amounts via My Gateway > Financial Information and compare them to the charges on their account to determine the timing and dollar amounts of any refunds.

As multiple loan disbursements are a federal requirement, no exceptions can be made to the timing of disbursements for any reason. Please view the Important Dates section to view disbursement dates for each semester. Students must be enrolled in and attending at least six credits for each loan disbursement to be made.

## Grants - Eligibility

### Federal Pell Grant

Students must be enrolled in a minimum of one (1) undergraduate level credit in order to be eligible for the Federal Pell Grant. Depending on a student's Student Aid Index (SAI), students may not be eligible for the Pell Grant. Please check with a Student Finance Specialist for more information. Student financial aid offers are initially based on full-time enrollment (12 credits each term) for the academic year. The amount of Federal Pell Grant a student receives is based on the student's actual enrollment status at the census date. Due to this, after the census date, aid offers are recalculated to reflect the student's actual enrollment status. Pell eligibility is based on enrollment, Student Aid Index (SAI) and/or Cost of Attendance (COA).

### Federal Work-Study

Federal Work-Study provides part-time jobs for Gateway Technical College students who have been awarded Federal Student Aid and have remaining unmet financial need, allowing them to earn money to help pay education expenses. The program encourages community service work and work related to the student's course of study.

To be eligible to participate in the Federal Work-Study program, students must:

- Apply for and be offered financial aid (completed a FAFSA)
- Be registered and enrolled in classes
- Have a remaining unmet need

Work-Study earnings are paid at a wage of \$15 per hour and are based on the number of hours worked. Total monies earned cannot exceed the amount stated on the student's Letter of Employment.

## State Grants

Students must be enrolled in a minimum of six (6) credits as of the census date to be eligible for state grants. Due to limited state funds, it is recommended that students apply for financial aid before April 1 for maximum eligibility.

## Loans - Eligibility

### Federal Student Loans

Students must be enrolled in a minimum of six (6) credits at the time of disbursement to be eligible for student loans.

Students who have not previously received a loan from Gateway Technical College and are requesting a loan must complete Direct Loan Entrance Counseling and sign a Direct Loan Master Promissory Note (MPN). If you do not complete Direct Loan Entrance Counseling and sign a Direct Loan Master Promissory Note, your loan funds will not be applied to your account. Students may complete the Federal Direct Loan Entrance Counseling and sign a Direct Loan Master Promissory Note on the Department of Education website at [studentaid.gov](http://studentaid.gov).

Students requesting a loan disbursement from a previous term will undergo a review of loan requirements by the Financial Aid Office in order to verify funding eligibility. Loans from a prior award year will not be considered for disbursement.

### Federal Parent PLUS Loans

Dependent students must be enrolled in a minimum of six (6) credits at the time of disbursement.

Eligibility for federal financial aid must first be determined for dependent students before consideration of Parent PLUS loans. Students may complete a FAFSA at [studentaid.gov/sa/fafsa](http://studentaid.gov/sa/fafsa). Parents and dependent students must be U.S. citizens or eligible noncitizens and cannot be in default or owe an overpayment on federal grants. Dependent students' parents' credit history will be checked. If a PLUS loan is denied, students may be considered for additional unsubsidized loans.

Please note, any eligible Direct Parent PLUS Loan amounts in excess of tuition, fees and books will be refunded to a parent through the student's selected refund preference with BankMobile. Students and parents will be required to sign a Parent PLUS Excess Loan Refund Authorization Form. This form will be emailed to the student's Gateway email account when required. If a parent has questions regarding the Parent PLUS Excess Loan Refund Authorization Form, they can contact the Financial Aid Office.

If a borrowing parent of a PLUS Loan refuses to sign the Parent PLUS Excess Loan Refund Authorization Form, accommodations will be made for the parent to receive the funding via check. This request will need to be made in writing and submitted to the Gateway Technical College Financial Aid Office.

### Private Loans

Students must be enrolled in a minimum of one (1) credit at the time of disbursement. Any other requirements set by the private loan originator must also be met in order to receive a disbursement.

Eligibility for federal financial aid must first be determined by completing a FAFSA at [studentaid.gov/sa/fafsa](http://studentaid.gov/sa/fafsa) before consideration of private loans will be made. Gateway reserves the right to deny certification of private loans.

## Purchase or Rental of Textbooks Using Financial Aid Funds

Gateway Technical College believes that being prepared for classes is essential. To ensure students are ready, students who have an accepted financial aid offer in place on My Gateway may use their funds to purchase or rent their textbooks and supplies from our partner, Follett Bookstores.

The amount of funds a student will have available to use at the bookstore each semester will be the difference between the amount of financial aid a student has accepted and the cost of their tuition and applicable fees.

- Bookstore authorization dates can be referenced on the Important Dates page of the Gateway Technical College Financial Aid website.
- Funds will be available 24 hours after your financial aid offer has been posted to the My Gateway Financial Information card and the student is enrolled in courses.
- To purchase or rent in person, bring a photo ID and a copy of your schedule to the bookstore on campus during the bookstore authorization dates. Let them know you would like to charge your purchase to your financial aid when you check out.
- To purchase or rent online, visit **eFollett.com** during the bookstore authorization dates and select the items to be purchased and/or rented. Proceed to the Checkout area and enter all the required information. You will be taken to the Payment Methods screen and indicate that you would like to pay using Financial Aid.

Students who are Pell Grant-eligible may wish to purchase their books from an alternate source. To do this, the student has the right to request an early disbursement of a portion of their Pell Grant.

- The maximum early disbursement allowed will be calculated by subtracting the cost of tuition and fees from the amount of Pell Grant offered for that term as of the date the request is being reviewed. If the cost of tuition and fees is more than the award an early disbursement will not be granted.
- The early disbursement will also be limited to the book component of the student's cost of attendance as determined by Gateway's Financial Aid Office.
- If this early disbursement is granted, the student will not have any funds available through Follett Bookstore for that term. If a student already purchased books using their financial aid at Follett, they are no longer eligible for the early disbursement.
- A student may request the early disbursement on a per-term basis by contacting a Student Finance Specialist and asking for an Early Pell Disbursement form. The form must be completed and returned to a Student Finance Specialist at Gateway by the first day of the term that the disbursement is being requested.

### BankMobile

Gateway Technical College has partnered with BankMobile to deliver your financial aid refund. For more information about BankMobile, visit [bankmobiledisbursements.com/refundchoices](http://bankmobiledisbursements.com/refundchoices).

For additional information on the BankMobile card, visit [gtc.edu/BankMobile](http://gtc.edu/BankMobile). If you have questions, contact Student Services at 1-800-247-7122 or [sscontactcenter@gtc.edu](mailto:sscontactcenter@gtc.edu).

For BankMobile student assistance, students can contact the BankMobile Customer Care team by locating the number on the back of their BankMobile card and calling 1-877-327-9515 or visiting [bankmobilevibe.com/contact-us](http://bankmobilevibe.com/contact-us).

### Drops with a 100% Refund

If a class is taken off your schedule and you are not charged for the class, your financial aid will be recalculated with the remaining eligible credits on your schedule. Dropped classes will be monitored throughout the entire semester.

### No-Shows

If you never attend class, you are not eligible to receive financial aid for the class. In a situation where an instructor drops a student from the class they are teaching due to the student being a

“no-show,” there is no refund on tuition; however, Financial Aid is required to adjust aid based on actual attended credits.

If you intend to drop a course, you must drop the course via My Gateway or submit a class add/drop form in person with photo identification at any Student Services Center so that you can be officially dropped from the class. Do not simply stop attending class.

### Return of Federal Financial Aid Funds

The Return of Title IV Federal Funds Policy (R2T4) applies to students who have received federal financial aid assistance and have officially or unofficially withdrawn from Gateway Technical College. Federal financial aid assistance includes Pell Grants, Supplemental Education Opportunity Grant (SEOG), Direct Student Loans (subsidized or unsubsidized) and PLUS Loans for parents. The official withdrawal date is defined as the actual date the student begins the college’s withdrawal process. The student’s last date of academically related activity is used for unofficial withdrawals.

The amount of the federal financial assistance that a student earns is determined on a pro-rata basis. Once the student has completed sixty percent (60%) of the term, all financial aid is considered to be earned. Please contact the Financial Aid Office for the 60% refund dates.

If a student withdraws from school before 60% of the term has been completed or does not officially withdraw and receives all failing grades for the term, the Financial Aid Office will calculate the amount of unearned financial aid and return the funds in the following refund distribution order: Unsubsidized Direct Loan, Subsidized Direct Loan, Direct PLUS Loan, Federal Pell Grant, Federal Supplemental Education Opportunity Grant and other Title IV assistance programs.

If a student receives all “F” grades for a term, they will be considered an unofficial withdrawal. If a student receives all “F” grades for a term but attended at least one full term class the entire term and “earned” the grade of “F”, the student will not be considered an unofficial withdrawal and no aid will be returned. If the student received financial aid and failed to attend classes, they are considered a “no-show” and have not established eligibility for any financial aid. No-shows must repay in full any funds received.

Gateway Technical College must return the Title IV funds to the programs from which they received them during the period of payment or period of enrollment, as applicable, up to the net amount disbursed from each source.

The student will be billed for the funds that Gateway Technical College is required to repay. Consult with the Financial Aid Office prior to any withdrawal to discuss your situation or if you have any questions regarding your financial aid. Students who want to dispute an amount should address all concerns in writing to: Director of Financial Aid, Gateway Technical College, 3520 30th Ave, Kenosha, WI 53144.

### How Return of Title IV Funds are Calculated

Federal regulations assume that students “earn” federal financial aid in direct proportion to the percentage of the term they complete. Federal law requires schools to calculate how much federal financial aid a student has earned if that student:

- Completely withdraws, or
- Stops attending before completing the semester, or
- Does not complete all modules (classes which are not scheduled for the entire term) for which he/she registered at the time those modules began, or
- Receives all F’s and W’s (or a combination of both) for all classes in any semester.

Based on this calculation, Gateway Technical College students who receive federal financial aid and do not complete all their scheduled classes during a semester could be responsible for repaying a portion of the aid they received.



## How is the Financial Aid that I Earn Calculated?

Students who receive federal financial aid earn the aid they receive by staying enrolled and participating in college. The amount of federal financial aid the student earns is determined on a prorated basis. Students who withdraw or do not complete all registered classes during the semester may be required to return some of the financial aid they were offered.

For example, if you complete 30% of the payment period or period of enrollment, you earn 30% of the aid you originally were scheduled to receive. This means that 70% of your scheduled financial aid remains unearned and must be returned to the federal government. Once you have completed more than 60% of the payment period or period of enrollment, you earn all of your federal financial aid.

The following formula is used to determine the percent of unearned aid that has to be returned to the federal government:

**For Credit Hour Programs:** The percent earned is equal to the number of calendar days completed up to the withdrawal date, divided by the total calendar days in the payment period (minus any scheduled breaks that are at least 5 days long).

**For Clock Hour Programs:** The percentage earned is equal to the number of clock hours the student was scheduled to complete in the period divided by the total number of clock hours in the period.

## R2T4 Freeze Date

The payment period for many students is the entire semester. However, for students enrolled in modules (classes which are not scheduled for the entire semester), the payment period only includes those days for the module(s) in which the student is registered. Gateway uses an R2T4 Freeze Date (RFD), which means that we include days which the student:

- Was enrolled or registered in the module as of the RFD; or
- The student attended at least one day in a module in which the student was not enrolled as of the RFD.
- Gateway's R2T4 Freeze Date is the same as the Census Date, which is 14 calendar days from the semester start date.
- The percent unearned is equal to 100% minus the percent earned.

Withdrawals from all classes before aid disbursement could result in a post-withdrawal disbursement of aid based on percent earned before aid was disbursed. One hundred percent withdrawals, class cancellations, not attending and complete withdrawals may require adjustments and repayments of federal financial aid funds.

A student may be eligible for a post-withdrawal disbursement if, prior to withdrawing, the student earned more federal financial aid than was disbursed. If a student is eligible for a post-withdrawal disbursement for Title IV funds, it will be processed for the student and a refund will be issued within 14 days of the credit balance. If the post-withdrawal disbursement includes loan funds, the College must get the student's permission before it can disburse the loan. Students may choose to decline some or all of the loan funds so that she/he does not incur additional debt. A notice will be sent to the student no later than 30 calendar days after the date the school determines the student withdrew. The signed original document must be returned to the school within 14 days. The College will apply all post-withdrawal disbursements to the student account first. Any credit balance must be disbursed as soon as possible and no later than 14 days after the calculation has been completed.

## What is the Withdrawal Date?

The withdrawal date used in the return calculation of a student's federal financial aid is the actual date the student begins the College's withdrawal.

### How are the Unearned Federal Funds Returned?

The College is responsible for returning unearned federal financial aid to the federal government. Amounts that must be returned will be applied in the following order: Unsubsidized Direct Loan, Subsidized Direct Loan, Direct Parent PLUS Loan, Federal Pell Grant and Federal Supplemental Education Opportunity Grant.

The College must return the lesser of 1) the total amount of unearned aid or 2) institutional charges multiplied by the unearned percentage.

The College will bill the student for any funds that were returned due to the Return of Title IV Aid calculation. The student must contact the Student Accounts Office to make payments. Any unearned Title IV aid must be returned to the federal government within 45 days of the date of determination of the student's withdrawal. Any funds returned after the Return of Title IV Aid calculation is complete and processed are then used to repay Gateway Technical College funds, state funds, other private sources, and the student, in proportion to the amount received from each non-federal source, as long as there was no unpaid balance at the time of withdrawal. All aid sources are repaid before any funds are returned to the student.

The student must take action within 45 days of the Return of Title IV notice of an overpayment of a federal grant. If the student does not take action within 45 days of the notice, Gateway Technical College will begin the collection process.

### What Happens if I Don't Repay?

Refer to the "Past Due Balances" section of the student handbook.

### Gateway Foundation Scholarships

Students can help keep their education more affordable by applying for a Gateway Foundation Scholarship. Annually, the Gateway Foundation awards scholarships to eligible students ranging from \$300 to \$1,000 or more. During the Continuing Student Scholarship application period, students are encouraged to go to the Foundation web page and click on the link for "Scholarship Application." To go to the Gateway Foundation online application, visit [gtc.edu/foundation/scholarships](http://gtc.edu/foundation/scholarships). The application period will open at the end of August and close in October. For more information about Gateway Foundation Scholarships, visit [gtc.edu/foundation](http://gtc.edu/foundation).

Established in 1977, the Gateway Technical College Foundation supports the mission of the College by raising community awareness and financial resources, broadening its base of support and providing programs such as scholarships, grants and funds for educational growth. The Foundation enhances the College's tradition of excellence by being responsive to its needs and strengthening the vitality and well-being of the diverse communities it serves.

As one of its activities, the Foundation specifically raises funds to provide assistance to Gateway students who wish to enhance their lives through education and training. Annually, the Gateway Technical College Foundation, Inc., awards scholarships and grants to students. These awards are made possible through the generosity of individuals (including Gateway alumni and staff), businesses and organizations in southeast Wisconsin who recognize the need to assist in providing funds for students eager to embark on the path to their future. To learn more about the Foundation, please visit [gtc.edu/foundation](http://gtc.edu/foundation).

### Military and Veterans Education Benefits

Gateway Technical College is proud to offer a wide variety of benefits and support services to help veterans, active service members, their spouses and dependents reach their educational goals. Experts on the Kenosha, Racine and Elkhorn campuses can walk students through the process of applying for military and veterans education benefits at Gateway. To schedule an appointment with a Student Finance Specialist, please call 1-800-247-7122, email [sscontactcenter@gtc.edu](mailto:sscontactcenter@gtc.edu) or visit one of our convenient Student Services locations.

For more information about applying for Veterans Education Benefits at Gateway Technical College, please visit [gtc.edu/va](http://gtc.edu/va).

### Satisfactory Academic Progress Policy - Federal VA Education Benefits

Students receiving any of the Federal VA Education Benefits listed below are required to maintain satisfactory academic progress by earning a minimum 2.0 term Grade Point Average (GPA) and complete at least 67% of the courses attempted within the term:

- Post 9/11 GI Bill®\* (Chapter 33)
- Montgomery GI Bill - Active Duty (Chapter 30)
- Montgomery GI Bill - Selected Reserve (Chapter 1606)
- Veteran Readiness and Employment/VR&E (Chapter 31)
- Dependents Educational Assistance (Chapter 35)
- Fry Scholarship

***\*GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by the VA is available at the official U.S. government website at [benefits.va.gov/gibill](http://benefits.va.gov/gibill).***

### Federal VA Education Benefit Statuses

Federal VA Education Benefit Satisfactory Academic Progress calculations will be completed prior to the start of the next consecutive term. Once the student's final grades are reviewed, their Federal VA Education Benefits will be placed on one of the following statuses: Good Standing, Warning, Probation or Suspension (see below for more information regarding each status). Students will be notified of their status via their Gateway student email.

**Good Standing:** Good Standing means the student has successfully met the Federal VA Education Benefit Satisfactory Academic Progress criteria (VA SAP) for the semester in question, and they are eligible to continue receiving their benefits.

A student's Federal VA Education Benefits will be considered in Good Standing if they meet the VA SAP criteria while on any of the following statuses: Good Standing, Warning or Probation.

**Warning:** A student's Federal VA Education Benefits will be placed on warning if they fail to meet the VA SAP criteria while their benefits are on Good Standing. Students in a warning status are eligible to continue receiving VA Benefits.

**Probation:** A student's Federal VA Education Benefits will be placed on Probation if any of the following occurs:

- Fail to meet the Federal VA SAP criteria while on warning
- Approved Federal VA Education Benefit Suspension Appeal Form on file
- Successfully Reestablish Satisfactory Academic Progress (earn 6 credits with a minimum 2.0 term GPA) while on Suspension

Students are still eligible for Federal VA benefits while on Probation.

**Suspension:** If a student's Federal VA Education Benefits are on Suspension, they are no longer eligible to receive their benefits. Students benefits can be suspended due to the following reasons:

- Failure to meet the VA Satisfactory Academic Progress criteria while on Probation
- Incomplete Federal VA Education Benefit Suspension Appeal form submitted
- Denied Federal VA Education Benefit Suspension Appeal form

Gateway Technical College is required to notify the Department of Veterans Affairs anytime a student's VA benefits are placed on Suspension.

## Reinstatement of Federal VA Education Benefits

When a student's Federal VA Education Benefits are placed on Suspension, the student has two options to regain eligibility for benefits:

### 1. Federal VA Education Benefit Suspension Appeal Form

Students that have been placed on Suspension will receive an email that includes a link to the Federal VA Education Benefit Suspension Appeal form. If the appeal is approved, the student would be eligible to receive VA benefits for their next semester of attendance.

### 2. Re-establish Satisfactory Academic Progress

Students are able to regain eligibility for their Federal VA Education Benefits by successfully completing a minimum of six college level credits with a minimum 2.0 term GPA. Once this step is completed, the student would be placed on Probation, and the student would be eligible to receive their Federal VA Education Benefits for the next semester of attendance.

For more detailed information regarding Gateway Technical College's Federal VA Education Benefit Satisfactory Academic Progress Policy, please visit: [gtc.edu/va-sap](http://gtc.edu/va-sap).

## Wisconsin GI Bill Benefits

The Wisconsin GI Bill (WI GI Bill) waives 100% of tuition and material fees for eligible veterans, spouses and dependents for up to eight full-time semesters or 128 credits (whichever is longer) at any University of Wisconsin System (UWS) or Wisconsin Technical College System (WTCS) institution.

The student is responsible for any remaining balance on their account after the WI GI Bill is applied, such as bookstore charges, activity fees and any other miscellaneous fees associated with the course (ex. online fees, activity fees, etc.).

## WI GI Bill 2.0 Cumulative GPA Requirement

Students using the Wisconsin GI Bill are required to maintain a minimum 2.0 GPA in order to remain eligible for benefits. If a student's cumulative GPA falls below 2.0 at the end of the semester, the student would no longer be eligible to receive the WI GI Bill for future terms, unless their cumulative GPA reaches a 2.0 or higher.

Once a student achieves the minimum cumulative GPA requirement, he or she should submit a VA-Education Benefit Request Form (VA-EBRF) to notify Gateway they would like to use their WI GI Bill benefit for their next term of attendance.

## No Penalties for Students Using VA Benefits

Gateway Technical College will not penalize or prohibit a student receiving Military or Veterans Education Benefits from attending or participating in courses while awaiting payment for their benefit. In addition to this, Gateway Technical College will not impose to any student (veteran, service member, spouse or child) that has a Military or Veterans Education Benefit in place (has submitted all required paperwork to be certified) any penalty, including the assessment of late fees, the denial of access to classes, libraries or other institutional facilities. In addition to this, Gateway Technical College staff will never require any student to borrow additional funds due to a delayed disbursement of Military or Veterans Education Benefit funds.

## Past Due Balances - Military Connected Students

All active duty service members, veterans, spouses and dependents with Military or VA Education Benefits in place at Gateway Technical College will be given an additional semester to pay an outstanding balance without penalty. Any remaining balance due at the end of the term will be excluded from being sent to collections. If the student still has a balance remaining at the end of the following semester, that balance will be subject to begin Gateway's standard collections process and be assessed collections fees (see "Past Due Balances" for more information).

## Called to Active Duty Policy

This policy applies to students who are called to active U.S. military service while attending classes. This includes students that are temporarily activated for duty (including annual and/or monthly training), students that are being mobilized or deployed for an extended period of time, or that are being reassigned or transferred permanently.

1. If a student who is a member of a national guard or a member of a reserve unit of the U.S. armed forces withdraws from school after September 11, 2001, because he or she is called into state active duty or into active service with the U.S. armed forces, Gateway Technical College shall do the following:
  - a. Ensure that the student is provided a reasonable opportunity to complete final coursework for all courses in which the scheduled end date of the course is not more than 30 days after the date of the order calling the student into active duty or service.
    1. The student is required to contact their instructor to get permission to receive an incomplete.
      - i. The student and instructor should work together to determine an appropriate extension based on the class time missed due to leave, and the required paperwork to be completed.
      - ii. There may be situations where Gateway Technical College will be unable to offer the incomplete/extension option (ex. Clinical or labs, nature of course content missed or length of ordered leave). In these circumstances, the student would be eligible for option b (below).
    - b. At the student's request, do the following for all courses from which the student is unable to complete due to their military leave:
      1. Remove 100% of tuition and fees for all courses and delete the courses from the students record.
      2. Give the student the same priority in registering for courses that the student would have had if he or she had registered for courses at the beginning of the registration period.
  2. The Student Accounts Department - Military & Veterans Education Benefit staff are responsible for presenting the student with the options available for each course (e.g. incomplete grade, deletion)
    - a. Students are not required to use the same option for all of their courses.
    - b. Staff will also ensure the student understands the potential impact on their benefits and other funding.

Students called to active duty during the semester should call 1-800-247-7122 or email [veterans@gtc.edu](mailto:veterans@gtc.edu) for more information.

## Payment Arrangements

As a student, you may use one of the following formal payment arrangements to pay for your tuition/ fee charges. A formal payment arrangement must be selected by 11:59 p.m. on the day of registration to avoid being removed from your classes. If the class has already started and you are registering late, you will be held in the class and responsible for payment.

Formal Payment Arrangements that will prevent you from being removed from classes include:

- **Accepted Financial Aid:** Verify that the "Review and accept your Financial Aid Offer Package" row is marked complete in the My Gateway.
- **Authorization:** If a third party (company/employer/agency) will be paying all or partial tuition and/or fees for a student, they will need to submit Gateway's authorization form to



the Student Accounts Department. Students can log into My Gateway to confirm that their authorization is on file.

- **Pay Fees in Full:** Payment can be submitted online through My Gateway by selecting Financial Information > Make a Payment at [gtc.edu](http://gtc.edu), over the phone at 1-800- 247-7122 or in person at any Student Services Center.
- **Student Payment Plan:** Students can log in to their My Gateway account and select Financial Information > Payment Plan or in person with photo identification at any Student Services Center to enroll. No fee and no down payment are required; the first payment is due the first Friday of the semester.
- **Scholarships:** Scholarship checks must be received and listed in the student’s My Gateway account to hold the student in their classes.
- **Veterans Education Benefits:** Students who have required paperwork on file for their Post 9/11 GI Bill (Chapter 33), WI GI Bill, Veteran Readiness and Employment/VR&E (Chapter 31) benefits will be held in their classes. Students will receive an email to their Gateway student email address once their benefits have been processed.

For additional information on payment arrangements, please visit: [gtc.edu/payment](http://gtc.edu/payment).

## Student Payment Plan

The Student Payment Plan is available each term until the first installment due date for that semester.

Semester	Summer 2024	Fall 2024	Spring 2025
Payment Plan Opens	3/18/2024	3/18/2024	1/14/2024
Initial Payment/First Installment	5/10/2024	9/6/2024	1/24/2025
Second Installment	5/31/2024	9/27/2024	2/14/2025
Third Installment	6/21/2024	10/18/2024	3/7/2025
Fourth Installment	7/12/2024	11/1/2024	3/31/2025

Students can enroll in the payment plan via My Gateway or in person with photo identification at any Student Services Center during normal business hours.

Students can view their payment plan balance by logging into their My Gateway account and selecting Financial Information > Make a Payment at [gtc.edu/mygateway](http://gtc.edu/mygateway).

The following outlines the Student Payment Plan requirements:

- The student must be enrolled in one credit with a minimum of a \$100 balance. (This is not available for non-credit students or to students only registered in Business Workforce Solutions and Traffic Safety courses.)
- Partial payments do not enroll you in the Payment Plan; the student must officially enroll on the plan and complete the signed contract.
- A maximum of \$4,000 is allowed on the payment plan. Any charges over the maximum must be paid in full at the time of enrollment on the plan.
- Four (4) installment payments are due during the semester for which the payment plan is initiated. Due dates are published in the student handbook, on Gateway’s website and on the Payment Plan form. Students receive a bill, which is sent to the current address on file. Payments are due by scheduled due dates without exception, even in the event a bill is not received by the student.

- A late fee of \$45.00 will be assessed if scheduled payments for the Payment Plan are received after the due date.
- There is no grace period beyond the due date for payment before a late fee is assessed.
- The student will not be removed from classes and will be responsible for payment of all fees once enrolled on the payment plan.

### Past Due Balances

Students are responsible for all charges incurred on their student account. Debts owed to Gateway are educational debt and therefore seen as educational loans if not paid prior to the end of the term. Your student account is considered by Gateway, a nonprofit institution of higher learning, to be an educational loan made to you to assist in financing your education, and therefore is not dischargeable under the United States Bankruptcy Code. Gateway has the right to recover any collection and/or litigation costs incurred in the collection of any amount due.

It is the student's responsibility to ensure all applicable funding (ex.: financial aid, scholarships and other outside payments) is applied to their account as expected. Balances not paid by the due date may be subject to the following:

- A late payment fee of \$45 for failure to pay installments on payment plan
- Referral to an outside collection agency and collections costs
- Inability to register

All unpaid balances are subject to collections and credit bureau reporting. A letter will be mailed to the student 30 days prior to this action occurring. If the account is sent to collections, the student is responsible to pay all collection costs, including attorney's fees incurred by Gateway Technical College or its representatives in association with the collection of the past due debt. Gateway utilizes the Wisconsin Department of Revenue Tax Refund Interception program (T.R.I.P) and State Debt Collections Program (SDC) to collect outstanding debts owed to Gateway.

Please see the "Military Connected Students & Past Due Balances" section for more information regarding past due balances.

***\*Students are able to make partial payments online or in person. However, a hold is removed only after a student's outstanding balance is paid in full. Making payments on an overdue balance will not prevent an account from being sent to collections.***

***\*\*Military Connected Students with past due balances: Please see "Military Connected Students & Past Due Balances" section for more information.***

### Balance of \$200 or Less

If a student has a past due balance totaling \$200 or less, the student will be allowed to register for future courses.

### Balance of \$200 or More

Students are responsible for all charges on their account. In the event a student has a past due balance over \$200, a hold will be placed on the student's account. The results of this hold are:

- You cannot register for classes.
- Access to other records and/or services may also be restricted.

### 95% or Greater Funding Policy

Students who have a total outstanding balance over \$200 that have submitted the items below will be able to register for future courses at Gateway:

- A third-party authorization on file, reflecting 95% or greater funding for the term they are registering for

- Submitted proof of a payment plan with the State Debt Collection Agency for the total amount of the outstanding debt
- Awarded financial aid reflecting 95% or greater funding for the term they are registering for

## Prior Debt Process

Students receiving financial aid may be eligible to take advantage of the Prior Debt Process to assist with paying prior debts with excess Financial Aid funds. Students can apply for the Prior Debt Process via My Gateway.

## Refund Policy

### Refunds for Dropped Classes

Students can drop a course online by logging into their My Gateway account or in person with photo identification at any Student Services Center. Students are responsible for all incurred charges up to the time in which courses are dropped.

Students may be eligible to receive a reduction in tuition and fee charges if a course is dropped during the designated drop period for that course. An adjustment in tuition charges will be processed in accordance with the refund schedule listed below.

### Refund Schedule

Find specific refund deadlines on the student’s class schedule. At [gtc.edu](http://gtc.edu), log in to My Gateway and go to the Registration and Schedule card.

<b>Refund Schedule</b>			
Action	Timeframe	Refund Percentage	Refund Date Deadline
Drop	Before the first class meeting. Online classes* start (are available for study) at 12:01 a.m. the first day. Drops for online classes must be completed before the first day of class in order to receive a 100% refund.	100% Refund	On the “Refund Percent” row labeled “100%”, see the “Drop By” deadline date.
Drop	1-10% of class meetings elapsed	80% Refund	On the “Refund Percent” row labeled “80%”, see the “Drop By” deadline date.
Drop	11-20% of class meetings elapsed	60% Refund	On the “Refund Percent” row labeled “60%”, see the “Drop By” deadline date.
Withdrawal	21-80% of class meetings elapsed	No Refund	On the “Refund Percent” row labeled “0%WDRW”, see the “Drop By” deadline date. Submit the withdrawal form found at <a href="http://gtc.edu/forms">gtc.edu/forms</a> under Registrar Forms Course Withdrawal Form.

Action	Timeframe	Refund Percentage	Refund Date Deadline
Non-attendance/ Instructor Drops	Definition: Student doesn't attend or discontinues attendance without dropping or withdrawing from class.		

**\*Online Courses:** Online courses including internet asynchronous, hybrid and blended courses begin at 12:01 a.m. of the first day. Drops for online classes must be completed before the first day of class in order to receive a 100% refund.

### No Refund for Instructor Drops

A student who registers for a class but who fails to attend may be dropped by the instructor. As an instructor drop is administrative and not student initiated, the student is not eligible to receive a refund.

### No Refund for Withdrawals

No refund is made when a student withdraws from a class. Students are able to withdraw from classes after the refund period has ended, i.e. after 20% of the class meeting times have elapsed.

### Refunds for Canceled Classes

A student is entitled to a full refund of all tuition and fees paid for a class if Gateway Technical College cancels the class.

### Late Registration Process Refunds

Refunds for students who enter a class late and subsequently drop will be calculated based upon the start date of the class, not the date the student registered for the class. See the refund schedule above for details.

### Called to Active Duty

Students that are called to active military duty during the term should notify their instructors and submit their orders via email to [studentaccountsdepartment@gtc.edu](mailto:studentaccountsdepartment@gtc.edu). A staff member will follow up within two business days to discuss the best solution for the student.

### Account Adjustments

Refunds will be applied to any outstanding balance the student has at the College. If the student account is:

**Paid in Full:** The refund will be mailed to the student's current address. No cash refunds.

**Payment Plan Account:** Any refund will be credited toward the balance owed. The amount due on subsequent statements will reflect the adjustment in fees. The refund percentage is based upon the total cost of the courses; it is not a percentage refund of the payments the student has made.

**Paid by Sponsorship/Agency/Company:** The tuition charges billed to the third party will be reduced. No refund will be issued.

**Paid/Partially Paid by Financial Aid:** The Financial Aid accepted offer/disbursement will reflect adjustments due to dropped classes.

### Student Account Appeals

Students are responsible for payment of all charges on their account. However, in the event that a student encounters an extenuating circumstance that unexpectedly impacts their ability to complete their courses, the student may request a Student Account Appeal to request a reduction of the balance on their account. Please note that an approved Student Account Appeal will only adjust tuition charges, not other fees or bookstore charges on a student's account.

A student who wishes to submit a Student Account Appeal form must meet with a Student Finance Specialist to discuss their situation in more detail. If the student's situation meets the criteria for an appeal, the Student Finance Specialist will provide the form.

All completed Student Account Appeals and supporting documentation must be submitted within 60 days from the official end of the term that the student is appealing charges for. Appeals submitted after that date will not be accepted.

Students will receive a decision regarding their appeal within 21 days from the date the completed appeal was received by Gateway staff.

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# Academic Information and Student Records

## Gateway Technical College Credentials

### Associate Degrees, Technical Diplomas and Advanced Technical Certificates

The Gateway Technical College District Board has the authority to grant Associate of Applied Science degrees, Associate of Arts degrees, Associate of Science degrees, Technical Diplomas and Advanced Technical Certificates to graduates of occupational programs approved by the Wisconsin Technical College System Board. Students must apply and be accepted to an Associate of Applied Science degree, Associate of Arts degree, Associate of Science degree, Technical Diploma or Advanced Technical Certificate program and complete all program requirements to graduate.

### Gateway Certificates

The Gateway Technical College District Board may award Wisconsin Technical College System Board-approved career pathway certificates and district certificates to students who complete a specific course or group of courses. Certificates are designed to help students gain entry level employment in specialized areas or to qualify for occupational advancement. Students must be accepted to the certificate program and complete all program requirements to receive a certificate.

### General Education Development (GED®)

Students can earn their GED by passing the official GED Testing Service tests. Subjects include Language Arts (RLA - Reasoning through Language Arts), Math, Science and Social Studies. Students must also pass the Civics exam. Prior to testing, students must complete an orientation (course 890-721). GED instructors can pretest in all four testing subject areas. Practice tests are available in selected subject areas. GED teaching strategies include small group instruction, computer-assisted learning, self-guided exercises or assignments and one-on-one tutoring. Nonresident fees may apply.

### High School Equivalency Diploma (HSED)

An HSED may be completed in several ways. Many students decide to complete their HSED through GED testing and completion of health, civics exam, career awareness and employability skills. An HSED may also be obtained through the completion of high school credits, post-secondary credits or competencies. Students may also be eligible to receive an HSED if they have been granted a diploma from a foreign country. Students interested in pursuing an HSED should have their official high school transcripts sent to the Director of Testing Services. All HSED participants must take an orientation (890-721) prior to starting the HSED program. Nonresident fees apply.



## English Language Learner Program (ELL)

ELL is designed to prepare students whose first language is other than English to speak and understand the English language; the program is free for Wisconsin residents. Students will improve their speaking, listening, grammar, writing, reading and vocabulary skills and learn about health, community, government, consumer education and employability skills. Large and small group instruction, computer-assisted learning and self-guided exercises and assignments are utilized.

## Student Name

The legal name on a student's record is the official name that will be displayed on college documents such as transcripts, diplomas, commencement programs, academic records, billing records, financial aid records, clinical placement records, licensing certification records and international student records, as well as employment, benefit and payroll records. Name changes will only be completed upon presentation of a legal document supporting the change, linking the new name to the name currently on the student's record. Requests for name changes may be submitted to any Student Services Center. Gateway recognizes that students may use names other than their legal names to identify themselves. The college is phasing in use of students' chosen names where the functionality is available in the software systems. Last names cannot be updated through the chosen name process. Students can submit a chosen name request online at [gtc.edu/forms](http://gtc.edu/forms), in the Registrar Forms section or in person in any Student Services Center.

## Social Security Number Policy

Social Security numbers (SSN) are used to identify student records. A student's failure to provide a SSN may delay processing. All Gateway students who are applying for financial aid are required to provide their Social Security number. A Social Security number is critical to state and federal reporting and the financial aid process. The Social Security number, protected by the Family Educational Rights and Privacy Act (FERPA), is not considered directory information and therefore will not be released to a third party. The Internal Revenue Service allows some post-secondary students to claim an education income tax credit on their taxes. In order to claim this credit, the student's Social Security number must be on file at the college so the student's enrollment and tuition and fees costs can be reported to the IRS. The college will make a 1098-T form available to the student electronically by January 30 of each year. This will document the student's SSN on file and the post-secondary enrollment information. For tax credit eligibility information, consult your tax professional. The Internal Revenue Service requires that Gateway provide 1098-T forms annually to post-secondary students.

## Student ID Number

Every student will have a system-generated ID number that will appear on his or her academic record and most Gateway correspondence. This number is not considered directory information and will not be released to a third party. It is important that students know their student ID number.

## Curriculum Sheets

Curriculum sheets detail current course requirements and course descriptions in a student's program. In order to graduate from a specific program, students must fulfill the requirements of the curriculum sheet for the academic year for which they were accepted.

At any time, a student may elect to follow the most recent program curriculum but may not move to a previous curriculum year. To move to the most recent program curriculum, students must complete a Curriculum Year Change form. This form can be found under the Registrar section at [gtc.edu/forms](http://gtc.edu/forms) or at any Student Services Center.

Useful information concerning possible job opportunities at entry and advanced levels is listed on the back of each curriculum sheet. Curriculum sheets can be obtained at [gtc.edu](http://gtc.edu) or printed in any Student Services Center.

## Academic Standards

### Academic and Program Standards

Academic and program standards are developed and are available to all students.

### Continuous Student Enrollment (Policy J-110)

Academic programs at Gateway undergo frequent changes to keep programs current with demands in technology and accreditation criteria. Generally, students are allowed to graduate following the program curriculum sheet in place at the time of the student's initial program acceptance. Because of frequent program changes and the length of time taken by students to meet graduation requirements, the following policies will govern which curriculum sheet will be used to define a student's graduation requirements:

1. The College does, after one (1) year of non-continuous enrollment, require the student to follow the most recent program curriculum in order to graduate.
2. The College reserves the right to place a seven (7) year limitation on accepting courses for graduation. Some programs have more stringent age requirements on course age for courses that are prerequisites to program courses.
3. At any time, a student may elect to follow the most recent program curriculum.
4. The College reserves the right to establish course substitutions when courses are inactivated to meet program curriculum requirements.

## Grading System

### Credits

Each post-secondary course carries academic credit based on total contact hours and the method of instruction. Credits are used in determining student grade point average. General college and developmental/remedial (pre-technical and pre-college) courses do not carry credit toward post-secondary degrees or diplomas and are not used in academic GPA calculations. However, all post-secondary courses, including general college, developmental and remedial courses are used to calculate Satisfactory Academic Progress for financial aid purposes.

### Post-Secondary Grading Information

Students enrolled in post-secondary level (associate degree and technical diploma level) credit courses will be graded by the following letter grade and point system. These represent various levels of accomplishment and grade points earned. Some instructors may not use plus (+) or minus (-) grades.

Grading scales for individual courses are outlined on each course syllabus and may vary from course to course. It is important for students to review and understand course grading scales.

Grades	Description	Grade Points
A	Excellent	4.00
A-	Excellent	3.67
B+	Good	3.66
B	Good	3.00
B-	Good	2.67
C+	Satisfactory	2.33

Grades	Description	Grade Points
C	Satisfactory	2.00
C–	Satisfactory	1.67
D+	Poor	1.33
D	Poor	1.00
D–	Poor	0.67
F	Failure	0.00

The following grades may appear on your transcript but will not be included in the Grade Point Average:

WP: Withdrawal Passing (prior to 2007)

WF: Withdrawal Failing (prior to 2007)

W: Withdrawal

R: Repeated

I: Incomplete

AU: Audited (no credit earned)

TR: Transfer Credit

PR: Proficiency Credit (Credit for Prior Learning)

M: Manual Repeat Adjustment

P: Pass (minimum 2.0 GPA equivalent)

D+X: Academically Forgiven D+ grade

DX: Academically Forgiven D grade

D–X: Academically Forgiven D– grade

FX: Academically Forgiven F grade

## “I” Grade

The “I” (incomplete) grade may be assigned at the discretion of the instructor. The student must have been close to completing the course, but due to extenuating circumstances, unable to complete the final exam or a limited amount of coursework. The instructor sets a deadline by which the coursework must be completed. The deadline will normally be within a few weeks of the end of the class, but no later than the end of the following semester (not including Summer Semester). The “I” grade will be displayed on the student’s transcript, which may be viewed via My Gateway. On the Registration and Schedule card, click Unofficial Transcript. If the student receives an “I” grade in a course that is a prerequisite to a subsequent course, the student will not be eligible to enroll/remain in the subsequent course. An “I” grade which is not changed by the deadline set by the instructor will automatically be changed to an F. The “I” grade counts as credits attempted but not completed for financial aid Good Academic Standing calculation.

## Grade Changes

Grade changes must be made within one year of the end of the semester in which the student registered for the courses. Grade changes will be honored only to correct a mistake or error in calculating or assigning the course grade.

## Student Program Record Sealed at Graduation

Once a student graduates from a program, that record is sealed. No changes are made to grades used to meet program requirements. If a course used to fulfill a graduation requirement is repeated after a student graduates, the repeat does not affect the record; it will not be used for credit or GPA purposes. Students who graduate from a program and subsequently complete the courses required for an additional concentration(s) in a program will not be officially awarded the additional concentration(s). The courses will display on the student’s transcript, but the graduation information for the program will not be modified.

## Viewing Grades

Students may view their grades via My Gateway. On the Registration and Schedule card, click Unofficial Transcript. Final grades are available online, the day after the instructor submits them.

## Grade Point Average (GPA)

A student’s average grade is expressed in terms of a Grade Point Average (GPA). Grading at Gateway is based on a four-point scale. GPAs are truncated, not rounded. The grade point average is calculated by dividing the sum of the grade points by the total number of GPA credits. General college, pre-college and pre-technical classes are developmental and/or remedial classes and do not count toward post-secondary graduation, nor are they used in GPA calculations for academic or credential purposes. Financial aid does include general college, pre-college and pre-technical classes for Satisfactory Academic Progress calculations. To determine grade point average:

- Multiply the number of GPA credits for each course by the grade point value of the letter grades assigned. This converts the letter grades into grade points.
- Add the total number of GPA credits.
- Add the total number of grade points earned.
- Divide the total number of grade points by the total number of GPA credits.

The resulting figure is the student’s grade point average. The example below illustrates GPA calculation for one semester.

<b>Example:</b>					
<b>Course</b>	<b>Grade</b>	<b>Point Value</b>		<b>GPA Credits</b>	<b>Grade Points</b>
English Comp I	F	0.00	X	3.0	0.000
Intro to Sociology	C	2.00	X	3.0	6.000
Speech	D	1.00	X	3.0	3.000
Management Principles	B	3.00	X	2.0	6.000
Accounting I	A	4.00	X	4.0	16.000
PTA Clinical Pract 1	P	0.00	X	0.00*	0.00
Investments	AU	--	X	--	--
			Total	15.0	31.000
Credits Completed	--	15.0			
Grade Points Earned	--	31.000			
Grade Point Average	--	31/15=2.066			

\*Note: Post-secondary credits for courses with a P grade count toward “hours completed” for graduation, but not as “GPA credits,” as they are not used to calculate GPA.

## Repeated Courses

Students may only earn credit once for a course. When a student repeats a course, only the highest grade earned is used for academic GPA calculations. The lower grade remains on the transcript but is annotated as being a repeated course. All attempts of repeated courses are used to calculate Satisfactory Academic Progress for financial aid purposes.

## Dean's List

Dean's List honors are granted each semester for students who are accepted into an associate degree or technical diploma program, have enrolled for a minimum of six (6) credits (not including developmental/remedial credits), and achieved a semester grade point average of 3.75 or better (see "Grade Point Average (GPA)" section). Dean's List calculations are based on courses that have finished (been graded) by the end of the traditional semester. All Dean's List awards will appear on student transcripts.

## High Honors Program

To be eligible to participate in the High Honors program, program admission, a 3.5 or higher cumulative grade point average and a minimum of 12 credit hours of college coursework completed is required. Eligible students must submit the honors contract. The honors contract is a collaborative effort between the student and a faculty member that provides an opportunity for the student to enrich the quality of their education beyond what is normally expected in the course. Proposed contracts must be relevant to the subject of the course. If the honors contract is approved by the Executive Vice President - Academic Affairs Office and the student completes the requirements of the project, the student will receive honors designation for that course. If 12 or more credits of honors courses are completed satisfactorily, the student is awarded High Honors at graduation.

## Midterm Grades

Midterm grades will be available via My Gateway on the dates specified in the academic calendar. In My Gateway, find the Registration and Schedule card and click Class Schedule > Academics > Grades. A midterm grade is a snapshot of your grade on the date the midterm grade was entered. Midterm grades do not appear on your transcript and are not calculated into your GPA. Midterm grades are intended to help students understand their progress in courses. Instructor comments may be provided with midterm grades. Since the grades are for student information purposes only, no grade changes are processed for midterm grades. If a midterm grade is determined by the instructor to have been inaccurate, the instructor will communicate the accurate grade to the student. Students should refer to their syllabus for the course grading policy and assignment information. Midterm grades are only required for post-secondary courses that begin at the start of the traditional semester and are at least 13 weeks in length. It is important for students to review their midterm grades via My Gateway.

## Academic Forgiveness Policy

Gateway recognizes that returning students' past academic work may not be reflective of their current demonstrated ability. Furthermore, past academic work may negatively affect students' academic standing and ability to reach their educational goals. Under these circumstances, the college may exclude some past grades from certain calculations of grade point average (GPA) and academic progress, hereafter referred to as academic forgiveness.

## Eligibility

1. At the time of re-entry to the college, the student must:
  - a. have had a two-year continuous break from any credit-bearing coursework at Gateway Technical College. Students seeking forgiveness for only dual credit coursework may apply without a 2-year continuous break.
  - b. have a Gateway cumulative GPA lower than 2.0.
2. Subsequent to re-entering the college, the student must:
  - a. be admitted to a certificate, diploma or degree program.
  - b. have an advisor-approved academic plan.
  - c. have completed at least 12 post-secondary, non-developmental/remedial credits at Gateway within three consecutive academic terms.
  - d. have earned no grade lower than C in any completed course.

## Procedure

1. Submit an electronic application for academic forgiveness at [gtc.edu/forms](http://gtc.edu/forms).
2. The Registrar's Office will screen your application for eligibility. If you are eligible, you will receive email confirmation.
3. Schedule a meeting with your academic advisor within two weeks of receiving confirmation from the Registrar's Office. At this meeting, you will discuss your plans for future academic success and plan your coursework out as far as possible.
4. Upon final approval by The Registrar's Office:
  - a. All grades of D+ and below earned prior to your break in enrollment will be excluded from all of your GPA calculations except those used for financial aid. The courses and grades will remain on your record and transcript.
  - b. Credit will remain unchanged for any courses taken before the point of academic forgiveness if you earned a grade of C- or higher.

Your total credits for graduation will be based on all program coursework taken at Gateway after re-entry, as well as prior coursework with grades of C- or higher and any transfer or proficiency credits awarded.

## Adult Continuing Education Grading Information

Adult Continuing Education (ACE) courses are non-credit, recorded on a separate transcript and not calculated in a student's GPA. Students enrolled in Adult Continuing Education courses will be assigned the following grades:

Grades	Grades	Grade Points
S	Satisfactory	No grade points are assigned for Adult Continuing Education Courses.
U	Unsatisfactory	
W	Withdrawal	

## Attendance

Gateway recognizes the importance of attendance in the learning process but does not believe that attendance in and of itself constitutes learning. Instructors will document in their course syllabi fair and reasonable attendance policies for their classes based on their subject matter,



delivery methods, learning activities, student audience, external regulations, college and departmental guidelines and employer expectations in their field of instruction. Students are responsible for reading and understanding each class attendance policy and for learning any material covered during an absence.

To be eligible to receive financial aid funding for classes, students must be registered for and attend all classes prior to the established Census Date.

### Transfer Credit

A student must be accepted to a post-secondary program at Gateway before transfer credits will be evaluated. Courses completed at a regionally accredited institution are evaluated to determine transferability. The Transfer Credit Specialist will evaluate the transcripts in collaboration with course instructors and academic deans as necessary to determine course transfer credit. Coursework completed at an institution that is not regionally accredited may be evaluated through the credit for prior learning process to determine what proficiency credit may be granted. Gateway must have the official transcript on file from the previous institution before transfer credits are evaluated. Official transcripts are defined as transcripts sent directly by mail to Gateway from the issuing institution by a recognized electronic transcript service or hand-delivered by the student, if the transcripts remain unopened in the issuing school's sealed envelope. Official transcripts must have the issuing school's seal and appropriate official's signature to be accepted. Official transcripts remain the property of Gateway Technical College and cannot be returned. Gateway Technical College cannot provide students with copies of their transcripts from other institutions. Students requiring copies of transcripts from other institutions they have attended must obtain them directly from those institutions. No more than 75 percent of a degree or certificate can be earned through transfer credit and/or credit for prior learning. A minimum grade of C is required for courses to be accepted as transfer. Courses with a grade of C- or below will not be accepted. Some courses in some programs (e.g., Nursing) have prerequisites with minimum grades higher than a C. Please refer to the degree requirements on your curriculum sheet. Transfer credit does not count in GPA calculations for graduation purposes. Students must have completed at least one post-secondary credit before an official transcript reflecting transfer credit will be issued.

### Credit for Prior Learning

Credit for prior learning recognizes prior learning through the awarding of academic proficiency credit. A student must be active in an associate degree, technical diploma, certificate or apprenticeship program at Gateway to be eligible to apply for a prior learning assessment (PLA). Students with prior learning may be able to pass prior learning assessments and earn credit toward their credential from Gateway. Non-refundable prior learning assessment fees are charged based on the standard WTCS rates and are not covered by financial aid. Internally developed and Gateway administered PLAs may only be attempted once. Should you fail a Gateway developed and administered PLA, you must then enroll in and pass the course to receive credit.

No more than 75 percent of a degree or certificate may be earned through transfer credit and/or credit for prior learning. When PLA credit is awarded, it is on a proficiency basis. Grades of "PR" are awarded. PLA credit does not count toward the student's grade point average. Please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu) for information.

Credit for prior learning assessment methods are listed below.

### College Level Examinations

College-level proficiency credit will be granted for knowledge validated by exams such as Advanced Placement (AP), College Level Examination Program (CLEP), Dantes Subject Standardized Test (DSST) and International Baccalaureate (IB). Please refer to Gateway's website for a list of accepted exams. Students must meet minimum score requirements to be awarded credit. A minimum score of 3 is required for AP exams, 50 is required for CLEP exams and minimum scores on DSST exams vary by exam. Gateway accepts scores of 4 or better on

high level (HL) International Baccalaureate (IB) exams. Some examinations may require additional competence tests before credit can be granted. An official transcript, score report or equivalent documents issued by the external agency must be submitted before credit can be granted. Additionally, proficiency credit may be granted to students who demonstrate course competencies through the satisfactory completion of college-developed course-specific internal exams for designated courses.

### Demonstrative Exam

Proficiency credit may be granted to students who demonstrate course competencies through the satisfactory completion of college developed demonstrative performance exams for specified courses. Exams are available for select courses. Contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu) for information.

### Portfolio Assessment

Proficiency credit may be granted to students who demonstrate course competencies through portfolio presentations demonstrating mastery of skills or competencies. Portfolio presentation assessments are available for select courses. There are specific courses for which proficiency credit may be granted through portfolio presentations. Contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu) for information.

### Military Evaluation

Credit may be granted upon review of an official military transcript from Joint Services Transcript (JST), which may be requested at [jst.doded.mil](http://jst.doded.mil). In accordance with Wisconsin State Statutes 38.12(7)(b), course credit recommendations established by the American Council on Education (ACE) are considered and evaluated against Gateway course learning outcomes and competences as outlined in WIDS by Gateway appointed faculty and content experts. Students completing basic training are eligible for elective credits, and a maximum of 12 elective credits will be awarded from all JST experiences. There are no fees assessed for the award of CFPL credit based on a JST evaluation.

### Articulation for High School Students

Through articulation agreements with area high schools, Gateway awards credits for certain approved courses taken at the high school level. Students must enroll in Gateway within 27 months of high school graduation and have earned a B or better in the high school course. High school students should speak with their high school guidance counselors regarding these opportunities. Contact [registrarsoffice@gtc.edu](mailto:registrarsoffice@gtc.edu) if you have a high school course that is eligible for credit at Gateway under this provision.

### Graduation Requirements

The Gateway Technical College District has procedures that govern the graduation requirements for technical diplomas, associate degree programs and advanced technical certificates. In order to graduate, a student must fulfill the following requirements:

- All the course requirements on the official curriculum sheet the student is enrolled under must be completed successfully. Any course substitutions must be approved and documented on the student's record.
- A minimum of twenty-five percent (25%) of the program credits must be earned at Gateway Technical College. Transfer credit and courses that were completed by the credit for prior learning process are not counted as credits earned at Gateway Technical College.
- A minimum of twenty-five percent (25%) of the major course credits designated with an asterisk (\*) on the curriculum sheet must be earned at Gateway Technical College. Transfer credits and courses that were completed by the credit for prior learning process are not counted as credits earned at Gateway Technical College.

- The following grade point average (GPA) requirements must be met:
- Effective with the 2021-22 catalog year, a cumulative GPA of 2.000 or above is required to graduate (2.000 on a four-point grading scale is a C).
- A Major GPA of 2.000 or above is required.
- Some programs require a grade of “C” (2.0) or above in some courses; refer to your curriculum sheet.
- Individual programs may have additional requirements to meet accrediting agency requirements. Refer to the program curriculum sheet for additional graduation and grade point requirements.
- It is the student’s responsibility to check their degree audit prior to the last semester of study to ensure that all the requirements for graduation will be met. All requirements must be completed by the last day of the semester, including removal of incomplete grades and submission of transcripts with transfer credits. If students have questions related to graduation requirements, they should discuss with their academic advisor.

### Computation of GPA for Graduation

#### Cumulative GPA

- All associate degree and technical diploma level courses that a student has taken at Gateway are used to calculate this GPA. “General college” courses, developmental and remedial courses are not included in cumulative GPA.
- This GPA appears on the transcript and program degree audit.

#### Program GPA - Only for curriculum catalog years prior to 2021–22

- All courses on the program curriculum sheet are used to calculate this GPA.
- This GPA is used to determine graduation eligibility and graduation honors.
- This GPA may also be used to determine other department or campus awards.

#### Major GPA

- All courses that are designated with an asterisk (\*) on the program curriculum sheet are used to calculate this GPA.
- This GPA is used to determine graduation eligibility.
- This GPA may also be used to determine other department or campus awards.

### Graduation - Post-Secondary Credentials

Students are automatically graduated at the next available graduation date from any associate degrees, technical diplomas or advanced technical certificates for which they have been accepted and completed all program and graduation requirements. Graduation is processed at the end of each semester and the graduation dates are the last day of classes of the Summer, Fall and Spring Semesters.

### Awarding of Certificates

Certificates will automatically be awarded and mailed to students active in certificate programs if they have completed all requirements by the end of the term. Students will receive their certificates in the mail six to eight weeks after the end of the term.

In order to receive a certificate, students must fulfill the following requirements:

- All the course requirements on the official curriculum sheet must be completed successfully. Any course substitutions must be approved and documented on the student's record.
- A minimum of twenty-five percent (25%) of the program credits must be earned at Gateway Technical College. Transfer credit and courses that were completed by the credit for prior learning process are not counted as credits earned at Gateway Technical College.
- A Program GPA of 2.000 or above is required (2.000 on a four-point grading scale is a C).
- Some certificates have specific minimum grade requirements for certain courses, e.g. a grade of "C" (2.0) or above in some courses. Refer to your curriculum sheet.
- Individual certificates may have additional requirements to meet accrediting agency requirements. Refer to the certificate curriculum sheet for additional graduation and grade point requirements.
- All student financial obligations must be met before certificates will be released.
- It is the student's responsibility to check their degree audit prior to the last semester of study to ensure that all the requirements for completion will be met. All requirements must be completed by the last day of the semester, including removal of incomplete grades and submission of transcripts with transfer credits. If students have questions related to completion requirements, they should discuss this with their academic advisor.

### Graduation with Honors

There are three graduation honors designations that may be earned by students completing an associate degree or technical diploma.

Honors distinction is bestowed upon students attaining the grade point averages (GPA) listed below. For students graduating from programs with catalog years 2021-22 and later, cumulative GPA will be used. For students graduating from programs with catalog years prior to 2021-22, program GPA will be used.

- District Honors: 3.750 - 3.899
- President's Honors: 3.900 - 4.000
- Provost's Honors: A student who receives honors credit for 12 or more credits in their program will be recognized as a Provost's Honors graduate. Please see the section on Provost's Honors program for further information.

The final determination regarding official honors status is made at the end of the semester. The decision will be made when the final GPA is calculated and the Provost's Honors courses have been graded and reviewed. Official graduation honors will be recorded on the student's transcript and will display on the diploma after final graduation verification. The program grade point average listed on the program degree audit is the official grade point average used to determine honors. Grade point averages are not rounded.

Commencement Ceremonies: Associate of Applied Science Degree, Associate of Arts Degree, Associate of Science Degree, Technical Diploma and Advanced Technical Certificate

The college commencement ceremonies, held in May, are a special recognition of students' scholastic achievements at Gateway Technical College. They are formal cap-and-gown ceremonies and all graduates are encouraged to participate. A student's name will appear in the official program and potential honors designation will be acknowledged at the ceremony only if they have registered for their last program classes by April 15. August graduates are eligible to participate in either the ceremony before or after their graduation. To participate in the ceremonies before their graduation, August graduates must be registered for their last classes by

April 15. All August graduates who register after this date will be invited to the next year's ceremonies.

Students who would like to participate in the commencement ceremonies must reserve their seat online. All potential graduates and confirmed graduates are notified by mid-April of ceremony and reservation details. For further information, please visit [gtc.edu/commencement](http://gtc.edu/commencement).

### HSED/GED Recognition Ceremony

The HSED/GED recognition ceremony held in May recognizes students' earning of their academic credential through Gateway Technical College. This is a formal cap-and-gown ceremony, and all credential recipients are encouraged to participate and be recognized. Students who have earned their credential since April 15 of the prior year are invited to attend the ceremony. Students must complete their testing by April 15 of the current year to participate in the ceremony. Confirmed credential recipients are notified, beginning mid-April, of graduation ceremony details. For further information, please visit [gtc.edu/graduate](http://gtc.edu/graduate).

### Official Transcripts

Official transcripts may be secured by submitting an online request via the National Student Clearinghouse website. Transcripts are available for the following types of records: postsecondary, adult high school and adult continuing education (ACE). Transcripts of General Educational Development (GED) or High School Equivalency Diploma (HSED) testing completed through Gateway must be requested from the Wisconsin Department of Public Instruction at [dpi.wi.gov/ged/transcripts](http://dpi.wi.gov/ged/transcripts).

The student must electronically submit their request to the National Student Clearinghouse before transcripts may be released. Gateway does not release transcripts received from other institutions. For more information on requesting a transcript, including request fees, please visit [gtc.edu/transcripts](http://gtc.edu/transcripts).

### Guaranteed Retraining

Graduates may be eligible for up to six additional credits of free retraining if their employer certifies that they lack certain skills or if the student has been unable to secure employment. Questions regarding retraining available under this policy should be directed to the Institutional Effectiveness or Student Affairs Office.

# Student Rights and Responsibilities

Gateway is dedicated to helping students identify and achieve realistic goals through excellent educational opportunities. The administration and staff of the College promote the goals of responsible participation and high achievement for our students. As a Gateway Technical College student, you are expected to be aware of college policies and procedures and accept responsibility as an active, contributing member of the College. This section explains policies and procedures identifying student rights and responsibilities. Gateway Technical College believes that all students have responsibilities in the areas of governance, services and conduct.

## Student Responsibility Agreement

The Student Responsibility Agreement is an agreement between the college and the student regarding their financial obligation to the college. This document is to be signed (or e-signed) at the time of registration to begin registering for courses. The Student Responsibility Agreement provides relevant information about official institutional policies and contractually binds students to the policies. The full Student Responsibility Agreement can be found at [gtc.edu/student-responsibility-agreement](http://gtc.edu/student-responsibility-agreement).

## Student Academic Responsibilities

Students are responsible for their own learning and development. They have a responsibility to be active learners by attending class, participating in class activities and discussions, completing class and laboratory assignments, and preparing in advance for the scheduled class session.

## Student Use of Services Responsibilities

Students are responsible for:

- Appropriate use of equipment and services provided by the College.
- Knowledge of and participation in student social and professional activities.
- Seeking assistance when facing problems that interfere with educational success.
- Meeting financial obligations to Gateway Technical College and those incurred through student loan programs.

## Student Code of Conduct – J-300

1. The Gateway District recognizes that in order to operate a meaningful educational program and a safe environment for students and staff, this Code of Conduct will be followed.
2. The Gateway District believes every student has the right to pursue an education free from disruption, harassment, illegal activities, threats or danger. The District further believes that academic honesty and integrity are fundamental to the educational mission of this College. Every student is expected to comply with the standards set and to be familiar with all the rules, regulations and policies of Gateway Technical College.
3. On a daily basis, any student or group of students may be denied access to the classroom upon the instructor's determination that their behavior impedes student learning, the health and safety of peers, self or the staff. The instructor will notify the student(s) of their denied access. The Dean of Campus Affairs will also be notified by the end of the working day.

## Procedure - Standards

1. Students are expected to comply with all institutional, federal, state, county and municipal policies, statutes and ordinances.
2. At all times, students are expected to conduct themselves in such a manner as not to interfere with the educational process at Gateway Technical College.



## Student Rights and Responsibilities

3. Students will conduct themselves in such a manner as not to endanger the safety or welfare of their fellow students.
4. Students must comply with the following and may be subject to discipline, including suspension or dismissal, for the following offenses:
  - a. Obstruction or disruption of the normal operations of the College or activities authorized by the College.
  - b. Physical or verbal abuse, harassment or detention of any person(s) on school property or at school activities when such endangers the health, safety or rights of such persons.
  - c. Theft, damage or misuse of property of the College or property of any visitor or member of the Gateway Technical College community.
  - d. Unauthorized entry to or use of Gateway Technical College property or facilities.
  - e. Dishonesty, which includes but is not limited to, knowingly furnishing false information to the College, plagiarism or any form of cheating.
  - f. Use, under the influence of, possession, sale or distribution of narcotic or illegal drugs, firearms, explosives, dangerous chemicals, alcoholic beverages, etc. on Gateway owned or leased property or at Gateway sponsored activities.
  - g. Possession of a dangerous weapon on school premises or at school-related events.

### Discipline

The following procedures have been developed to deal with a student who has failed to comply with this policy.

**Step 1.** Upon receipt of an alleged violation, the appropriate Dean of Campus Affairs will be assigned to investigate the charges. The Dean of Campus Affairs may temporarily suspend a student pending an investigation when the student's continued presence might cause continued academic disruption or endanger the student or others.

**Step 2.** If the investigation determines that the college has reasonable cause to believe that a student has pursued a course of conduct which is contrary to Gateway policy and requires sanction(s), the Dean of Campus Affairs may take appropriate action. Within five (5) working days from the action, the student shall be given notice in writing, by certified mail or personal delivery, the results of the investigation and the sanctions applied. The notice will also provide the information necessary for the student to appeal the sanctions if he or she wishes.

**Step 3.** Students who appeal the sanctions must notify the executive vice president - academic affairs in writing within five (5) working days of receipt of the letter. The student will be notified in writing, by certified mail or personal delivery, of the time and place of the hearing before a disciplinary committee composed of the executive vice president - academic affairs or designee, a staff member and a student. Said hearing shall be held no less than two (2) working days nor more than seven (7) calendar days from the date the student receives the above notice of hearing. The student shall be provided the name(s) of the witness(es) testifying against him/her and a copy of the initial investigation results that was conducted by the Dean of Campus Affairs.

**Step 4.** At any hearing before the disciplinary committee, the student shall have the right to present testimony on his/her own behalf and call witnesses.

**Step 5.** The committee shall issue a dated, written order (to the student) informing the student of the decision. The order may be personally delivered or sent certified mail.

### Non-Academic Sanctions

The following sanctions may be imposed on students who fail to comply with this policy.

1. **Warning:** Issued to a student who has committed a minor violation of this policy and doesn't pose a continued concern for the college.

## Student Rights and Responsibilities

2. **Disciplinary Probation:** Issued to a student who has committed a violation of this policy and will face additional sanctions if any additional violations occur during a specified time frame.
3. **Suspension:** Issued to a student, for a specified time frame, who has committed a major, egregious or continued violation(s) of this policy.
4. **Dismissal:** Permanent removal, issued to a student who has committed a major, egregious or continued violation(s) of this policy.
5. **Restriction:** Issued to a student who has committed a violation of this policy, the resolution is a limitation on the student's access to identified services, locations, education, community activities or persons. Issued for a specified time frame.
6. **Restitution:** Issued to a student who has committed a violation of this policy that resulted in staff, institutional or another student's financial loss. May be issued as a condition of return or continued attendance in the college.
7. **Referral:** Issued to a student who has committed a violation of this policy and it's determined that continued participation at the college is contingent upon the student attending designated services (college or private vendor) or programs. May be issued for a specified time frame or as permanent and may be issued as a condition of return or continued attendance in the college.
8. **Loss of Privileges:** Issued to a student who has committed a violation of this policy and it is determined that the student may continue attendance in the college with permanent limitations on the student's access to identified service, location or educational community activities.
4. **No Contact:** Issued to a student who has committed a violation of this policy and it is determined that the student may continue attendance in the college with permanent limitations on the student's access/contact with an identified individual(s) or groups of students and/or staff.

These sanctions are not meant to be progressive in nature. A student may be issued one or more of these sanctions in response to an incident. The college will determine the level of sanction based on the severity of the incident or series of incidents.

### General Student Complaints – J-100

In order to provide students with the opportunity to have any complaint or concern they encounter at Gateway heard and addressed, the college maintains informal and formal channels for student complaints. The college requires that students first use informal channels to seek resolutions by working directly with the parties involved. If resolution cannot be reached, formal channels are provided to reach prompt and fair resolution of complaints. The college will not tolerate retaliation against any individual for filing a complaint in good faith in order to seek a resolution to a problem with the college or its employees or students.

#### Definitions

1. For the purpose of this policy, a student is defined as an individual who is currently or has been enrolled in any Gateway course within a 12-month period prior to filing a complaint.
2. A complaint is a request for specific action to resolve a problem caused by the action or inaction of the college or its employees.
3. Expressions of dissatisfaction with the college's action or inaction, facilities or services that do not include a request for action will be labeled as concerns and considered feedback. Concerns may or may not require follow-up by the college.
4. Retaliation is any adverse action or threat of adverse action against an individual because of the individual's good faith report of a complaint. Good faith means the individual has an honest and reasonable belief that college action is required to resolve a problem.

## Processes

Several categories of student complaint have separate processes outside this policy with their own timelines and requirements:

1. Academic concerns (grades, classroom policies, etc.)
2. Discrimination, harassment and Title IX complaints
3. Student Account appeals (Contact a Student Services Student Finance Specialist.)
4. Behaviors of Concern

All other student complaints follow this policy.

## Procedure

1. **Informal complaint.** Students are required to make every effort to resolve their complaint informally by working directly with the employee or department involved. Students should communicate specifically what problem they are experiencing and what action they are requesting to resolve their issue. Students are encouraged to seek resolution as soon as possible after the unsatisfactory situation occurred. If the complaint is not resolved in a reasonable amount of time to the student's satisfaction, the student may move on to the formal complaint process. Students may not skip this step, since most complaints can be resolved at this level.
2. **Formal complaint.** All formal student complaints are submitted electronically on the Student Complaint form, which can be found at [gtc.edu/complaints](http://gtc.edu/complaints). Formal complaints must be filed within 12 months of the situation prompting the complaint. The following information is required:
  - a. **Identification of a complaining party.** Students are asked to provide their name and Gateway ID number. Anonymous complaints will be considered; however, the college's ability to investigate and resolve the complaint may be limited. For complaints on behalf of a group of students, all individuals seeking a specific action must be named.
  - b. **Category of complaint.** To assist in resolving complaints promptly, students should indicate the general nature of their issue: facilities/equipment, customer service, administration, employee conduct, student conduct, college services or general/other.
  - c. **Description of problem.** Students should describe in detail the action or inaction of the college or its employees with which they are dissatisfied and the negative impact of the situation on the student. Names of parties involved, dates and locations should be included whenever possible.
  - d. **Prior attempts to resolve.** Students must explain the prior attempts to resolve the problem at the informal level and why those attempts were unsuccessful.
  - e. **Outcome desired.** Students must state specifically the action they are requesting from the college that they consider an acceptable resolution of the problem.

Students will receive an acknowledgment of submission of the form and details of next steps. Students with disabilities may contact Gateway's Disability Support Services department for assistance with the complaint form.

3. **Review and Resolution.** Formal complaints will be directed to the supervisor of the person or department involved unless the issue has already been addressed unsuccessfully at that level. In those cases, the complaint will be directed to the next higher supervisor. Supervisors will investigate complaints and respond promptly based on the circumstances of the situation.
4. **Appeal.** Students who are dissatisfied with the response to their formal complaint may appeal to the vice president of the division involved by submitting a student complaint appeal form within five working days of receiving the response. If the vice president was party to the unsatisfactory resolution of the formal complaint, the appeal may go to the president or his/her designee. The decision of the vice president or president/designee is final.

5. **Complaint records.** Gateway has a federal obligation to maintain records of all student complaints including the name of the complaining party, the nature of the complaint, the resolution, any other related actions (appeals to outside agencies, etc.) and any institutional learning resulting from individual complaints or patterns of complaints. Records are retained for a minimum of ten years. Release of complaint records is subject to appropriate privacy laws. A summary of these records will be shared with the college's accreditor, the Higher Learning Commission, with names and personally identifiable information removed. Gateway requires only complaints that reach the formal written level to be included in these records. Supervisors may enter verbal complaints into the college's student complaint database at their discretion.

## Student Due Process Rights – J-101

### Academic Concerns

The Gateway District believes that students need a process to address academic concerns (i.e. grades, classroom policies) and bring their issues to the faculty and administration's attention. These procedures are intended to afford students, faculty, and the College fair and equal treatment. The student may seek guidance from an academic advisor or student support specialist, who will assist the student in understanding the process. All complaints must be filed within **one (1) year** of occurrence.

### Procedure

**Step 1:** The student should first address a concern to the instructor. Students are encouraged to attempt to resolve the issue within the first thirty (30) days of the incident, through informal discussion with the appropriate faculty member.

**Step 2:** If the concern remains unresolved, the student may submit a Step 2 Academic Concern form, available on the Student Complaints and Concerns page of the Gateway website which identifies the specific concerns and desired outcomes. The supervisor will share the written complaint with the faculty member and request a written response. The supervisor will meet with the student and the instructor and respond, in writing. This may serve as Step 1 in certain circumstances.

**Step 3:** If the concern remains unresolved, the student may appeal to the executive vice president-academic affairs by submitting a Step 3 Academic Concern appeal form within five (5) working days of receiving the supervisor's decision. If it is determined that a review is appropriate, an appeals committee will be assigned to hear the concern within seven (7) working days of the request.

a. The appeals committee selection is as follows:

- 1) The executive vice president-academic affairs selects the following four (4) people: one (1) chairperson who will be an administrator, and three (3) faculty/staff members
- 2) The Campus United Student Government will select two (2) students from outside the student complainants' program area
- 3) The student complainant will select one (1) peer from his/her program area.

b. The committee will make a recommendation to the executive vice president-academic affairs who will make a decision within five (5) working days of the committee hearing.

c. The decision of the executive vice president-academic affairs is final.

## Academic Integrity – J-114

Academic integrity is submitting one's own work and properly acknowledging the contributions of others. Any violation of this principle constitutes academic dishonesty and is liable to result in a failing grade and disciplinary action. Gateway places the highest value on delivering a quality learning experience for all students. The learning experience requires trust between faculty and students and adherence to standards of academic honesty and integrity. To deter academic misconduct it is important that students understand how it is defined and what is expected of students. It is also important that students know their rights when an allegation of academic misconduct is made. Every member of the college community has the right to expect that all students will be graded fairly, and every member of the college community has rights of due process if accused of academic misconduct.

Academic misconduct includes but is not limited to: (These definitions apply to all academic work, including but not limited to all exams, essays, homework, performances, computer programs, projects, labs, tutoring and the like.)

1. A student seeks to claim credit for the work or efforts of another without authorization or citation, i.e. plagiarism;
2. A student uses unauthorized materials (notes, calculators, etc.) in any academic exercise;
3. A student forges or falsifies academic documents or records;
4. A student provides examination questions or answers to another person or accepts examination questions or answers from another person;
5. A student copies the academic work of another student;
6. A student intentionally impedes or damages the academic work of another;
7. A student engages in conduct that misrepresents a student's academic performance;
8. A student assists another student in any of the acts described in this section; or
9. Any member of the college community assists or collaborates with a student in any of the acts described in this section.

## Use of Artificial Intelligence (AI)

At Gateway, we acknowledge the growing use of Artificial Intelligence (AI) in various fields and for general use. While we encourage faculty and students to explore AI, we require that they adhere to this policy on the ethical use of this emerging technology.

1. Students must cite AI or include a note explaining how much and in what ways their work was AI-generated. For a formal citation, use the following format: AI Tool Name. (YYYY, Month DD of query). "Text of your query." Generated using AI. [www.AI.tool.url.com](http://www.AI.tool.url.com)
2. Students must check any AI content for accuracy and bias. Students are responsible for any inaccurate or biased information.
3. Students are responsible for producing quality work. Poor prompts and inadequate adaptation of AI-produced texts result in poor-quality work.
4. Students must not use AI to cheat or plagiarize by turning in an AI-generated text as original work. Students submitting an assignment using AI without proper disclosure constitutes academic misconduct.
5. Students must adhere to the instructor's policies on using AI-generated content in their work. Instructors may prohibit or limit the use of AI on specific assignments or projects.
6. It is the student's responsibility to save and keep the complete transcripts and conversations (recordkeeping) generated using AI. The instructor may request the information to evaluate an assignment.

## Procedures for Addressing Allegations of Academic Misconduct

1. When an instructor suspects that a student or member of the college community has engaged in academic misconduct, the instructor will investigate the matter in a timely manner. The instructor will communicate the basis of his or her suspicion to the student and/or college member, if at all possible, to afford those individuals the opportunity to respond.
2. If, as a result of this investigation, the instructor determines that no academic misconduct has occurred, the matter will be considered concluded.
3. If, as a result of this investigation, the instructor determines that academic misconduct involving a student in his/her class has occurred, the instructor will apply sanctions as outlined in his/her syllabus. If a college employee is involved, that person's supervisor will be notified.
4. The instructor will file a Maxient report on each occurrence (Maxient is a reporting system used to share and store information).

## Multiple Occurrences of Academic Misconduct

- a. First confirmed occurrence will result in the sanctions specified in the instructor's syllabus.
- b. Subsequent occurrences of academic misconduct will follow the student code of conduct process (J-300).

## Appeals

- a. Appeals of the instructor's resolution of the initial occurrence follow Policy J-101 Student Due Process Rights/Academic Concerns.
- b. Appeals of discipline for student code of conduct violations follow Policy J-300 Student Code of Conduct.

## Student Information Updates

It is necessary for the college to have current student contact information for the purpose of communicating official correspondence and for use in case of emergencies. Students are responsible for keeping Gateway records up-to-date with their current mailing address, email address and phone numbers. Personal information must be updated or verified at least once a year after July 1st to be eligible to register for a class. Students can update their information via My Gateway > My Profile card > Update Personal Information. Students may also submit a Student Data Add/Change form in Student Services or online at [gtc.edu/forms](http://gtc.edu/forms). When students leave Gateway, it is their responsibility to maintain updated contact information with the college for purposes of continued communication.

SMS messages (also known as text messages) and automated phone calls are types of communication that Gateway Technical College may send to students. These forms of communication may be utilized by authorized university officials to relay important college information, including registration, waitlist, course cancellation, academic advising, account information and financial aid messages that are time sensitive in nature. Students may opt out of receiving these text messages and calls via My Gateway > My Profile card > Update Personal Information. They may also submit this information in person at any Student Services Center.

**Note: If your cell phone provider charges for text messages received, there will likely be a cost associated with this service. Check with your mobile phone provider.**

For information about Gateway's "AlertMe" Emergency Notification System, please see the Services for Students section of this handbook.



### Federal Family Educational Rights and Privacy Act (FERPA)

#### Notification of Rights

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. FERPA rights begin when a student registers for a course or at the point of admission to a program. These rights include:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. A student should submit to the Registrar's Office a written, signed request that identifies the record(s) the student wishes to inspect. The registrar or designee will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the registrar, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the college to amend a record should write to the College official responsible for the record, clearly identify the part of the record the student wants changed and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the College discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent. The College discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibilities for the College.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202-5901

#### Notification of Directory Information

Gateway Technical College complies with the provisions of FERPA. Prior written consent from a student must be obtained before information may be disclosed by Gateway Technical College to third parties, unless the information or the individual or group making the request is exempted by the policy and the Family Educational Rights and Privacy Act of 1974. Such exemptions are made for the following:

1. Request from Gateway Technical College faculty and staff with a legitimate need to know.
2. Request in accordance with a lawful subpoena or court order.

## Student Rights and Responsibilities

3. Request from representatives of agencies or organizations from which the student is receiving or has received financial aid.
4. Request from officials of other postsecondary educational institutions to which the student has applied for admission (conditions apply).
5. Request from other persons or agencies specifically exempted from the prior consent requirement by the Act. This includes certain federal and state officials of the District accrediting agencies, etc.
6. Requests for directory information, which includes the following categories:
  - Name
  - Hometown
  - Date of birth
  - Program of enrollment (major field of study) and number of credits for which currently or formerly enrolled
  - Participation in officially recognized activities
  - Dates of attendance (including enrollment status, classification, year, matriculation and withdrawal dates)
  - Candidacy for graduation
  - Degrees and awards (type of degree and date granted)
  - Honors received
  - Most recent previous educational agency or institution attended

The student may elect to have directory information held confidential. When this option is exercised, the only information that will be released by Gateway, other than for exemptions 1 through 5 above, is confirmation that a student is or has been enrolled at Gateway. For students who have not elected to have directory information held confidential, the release of directory information will be limited to those requests perceived to be in the best interest of the student; e.g. requests from parents, friends, relatives, prospective employers or licensing agencies seeking to confirm certain information, societies, news releases, programs, etc. Gateway Technical College assumes no responsibility or liability for the accuracy of judgment as to whether or not a release of directory information is in the best interest of a student.

If a student elects to have directory information held confidential, they should contact the Registrar's Office for further information and to complete the appropriate form. Gateway will assume no responsibility for contacting students who have elected to stipulate directory information as confidential for the subsequent permission to release any information. When a student or former student no longer wishes their information to be confidential, they must complete a form with the Registrar's Office to reverse the previous action.

### Enrollment – J-190

Students will be considered enrolled in a class upon registration (provided they remain registered) if they have:

- Paid the required tuition and fees,
- Entered into a standardized payment plan with the District,
- Been awarded financial aid, or
- A third-party payer authorization/contract filed with Gateway guaranteeing payment of the tuition and fees.

Any student who has an outstanding debt greater than \$200 with the College will not be allowed to register until the debt has been reduced to \$200 or less unless the student has a 95% or greater third-party payer authorization or financial aid in place with the Student Accounts Office and has a payment arrangement in place for the outstanding debt. Students who believe they should not be held responsible for charges to their account due to extenuating circumstances must follow Student Account Appeals procedures. This policy will be effective in reference to debts incurred after January 1, 1992.

## Institutional and Employee Relationships with Educational Loan Lenders – J-217

1. Students and their families increasingly rely on loans to finance a college education. As a result, Gateway Technical College employees have more frequent interactions with educational loan lenders. In addition, because of the increasing numbers and complexities of the loans, Gateway employees are often asked by students and their families to provide assistance with regard to their financial decisions.
2. Gateway employees are committed to providing that assistance in an objective, fair, clear and understandable manner. In order to assure students, their families and the public that Gateway and its employees continue to serve the students' best interests, Gateway will comply with all federal and state laws pertaining to the administration of financial aid in addition to the following regarding the relationship between Gateway and educational loan lenders.

### 1. Lender Lists

The District may maintain lists, either in print or other media, of educational loan lenders for the benefit of students, subject to the following:

- a. The District will use an evaluative process for the inclusion of lenders on the list; information regarding the selection of lenders, the evaluative process used and the criteria used for such selection will be available to the public upon request;
- b. Any District lender list must be accompanied by a statement explaining that students are not limited to the lenders included on the list;
- c. A lender list must include a minimum of three lenders; and
- d. The District will work with the educational loan lenders on the list to ensure that specific loan information and key details (including but not limited by enumeration to the terms, interest rate and repayment requirements) are available from the lender in a clear and understandable manner.

### 2. Consumer Information

The District will inform students who apply for financial aid of the following:

- a. That the student may use any lender who is eligible to make education loans when selecting a lender for a private or alternative student loan.
- b. That the student must use the guarantee agency selected by the Department of Education to make education loans when pursuing a Federal Direct Student Loan.
- c. That federal and state government loans are available and provide comparative information on private and government loans.
- d. That students are encouraged to explore and weigh the use of federal loans that are guaranteed, regulated and may be more advantageous, before pursuing private alternative loans.

### 3. Allowed Services and Resources

The District and its employees are allowed to receive the following services and resources for educational loan lenders:

- a. Counseling and educational materials for use by students and their families regarding student lending laws, education loans, financial literacy, debt management and other topics relevant to providing students and their families with financial aid assistance; any such materials must clearly disclose the source of said materials and may not use trademarks, logos, mascots or other symbols associated with the District or that would suggest any District endorsement of the lender or product.
- b. Training to District employees regarding student lending laws, education loans, financial literacy, debt management and other topics relevant to providing students and their families with financial aid.

#### 4. Prohibitions on the Gateway District and its Employees

Gateway and its employees are prohibited from the following:

- a. To solicit, accept or enter into any agreement in which an educational loan lender provides fees, revenue sharing or material benefits to the District institution in exchange for the institution or its employees recommending the lender or its loan products.
- b. To enter into an agreement with a lender of education loans for or solicit or accept from a lender of education loans any funds that would be allocated or used for opportunity loan pools or any similar arrangements.
- c. To solicit or accept assistance for call center or financial aid staffing from a lender of education loans.
- d. To solicit, accept or enter into any agreement in violation of the District policy on student financial aid operations and may not engage in conduct that violates the District code of ethics under TCS 6.06(1), Wis. Adm. Code or any applicable provisions of Wis. Stats. §19.41, et seq., Code of Ethics for Public Officials and Employees.
- e. To receive compensation or reimbursement from an educational loan lender for any costs incurred as part of participating on an advisory council of the lender.
- f. District employees are allowed to participate on an advisory council of an educational loan lender for the purpose of improving services to students, as long as they do not accept compensation or reimbursement from the lender for any costs incurred for participating on the advisory council.

#### Student Right-to-Know Reporting – J-270

Gateway will maintain and disclose student program completion and graduation rates in compliance with the Student-Right-To-Know and Campus Security Acts.

##### Procedure

- Information on completion and graduation rates of all technical diploma or associate degree-seeking full-time students will be collected.
- This information, as well as Campus Security Information, will be made available through appropriate College publications, on the Gateway Technical College website ([gtc.edu](http://gtc.edu)) and to prospective students upon request.
- This information will be available before prospective students enroll or enter into any financial obligation with the College.

#### Identity Theft Prevention – H-195

Gateway Technical College is committed to protecting the identifying information of our customers' covered accounts. The College is governed by Section 114 of the Federal Trade Commission's Fair and Accurate Credit Transactions Act, which created the Red Flags Rule. This regulation requires the College to have an Identity Theft Prevention Program designed to detect, prevent and mitigate identity theft in connection with opening a covered account or

existing covered account and to provide administration of the program. The College's program will:

- Identify relevant red flags for covered accounts it offers or maintains and incorporate those red flags into the program
- Detect red flags that have been incorporated into the program
- Respond appropriately to any red flags that are detected to prevent and mitigate identity theft
- Ensure the program is updated periodically to reflect changes in risks to students and to the safety and soundness of the creditor from identity theft

If you have questions about the Identity Theft Prevention Policy, contact the Office of Student Accounts.

### **Solicitation of Business on District Property for Personal Gain by Students – J-320**

Students shall not solicit other students, faculty or employees on District property for private financial gain. Violation of this policy is subject to Code of Conduct procedures, J-300, Non-Academic Discipline, Suspension or Dismissal.

### **Drug-Free Environment**

Any student who engages in an activity on Gateway premises or at a Gateway-sponsored event, that constitutes a violation of the State of Wisconsin Uniform Controlled Substances Act, shall be subject to non-academic misconduct disciplinary sanctions. In determining the appropriate sanction, the college President or designee shall consider those penalties, including suspension and expulsion, that will contribute most effectively to maintaining a College environment free from controlled substances.

In keeping with local, state and federal laws, Gateway Technical College prohibits the possession, use or distribution of drugs, alcohol or any intoxicant by students while on College property or when involved in any College-sponsored activity and maintains a Drug Abuse and Prevention Program in compliance with the Drug Free Schools and Communities Act. The full plan can be viewed at [gtc.edu/DAAPP](http://gtc.edu/DAAPP). If a student has a drug or alcohol problem, we highly recommend that they seek assistance from the Student Services office.

### **Tobacco-Free/Smoke-Free Environment – E-155**

Gateway Technical College recognizes the health hazards associated with smoking and the use of tobacco products and is strongly committed to maintaining and improving the health and well-being of all students and staff.

Therefore, Gateway prohibits the use of tobacco products at any time on all Gateway properties including but not limited to all buildings, grounds, sidewalks, streets, parking lots and structures and all Gateway owned and leased vehicles. This prohibition applies to all employees, students and visitors at any school-sponsored instructional program or activity held on or off district property. Any written joint use agreement governing community use of district facilities or grounds shall include notice of the district's tobacco-free schools policy and the consequences for violations of the policy.

Prohibited products include any product containing tobacco or nicotine, including, but not limited to, cigarettes, cigars, miniature cigars, smokeless tobacco, snuff, chew and nicotine delivery devices such as electronic cigarettes, electronic hookahs and other vapor-emitting devices with or without nicotine content that may mimic the use of tobacco products. Exceptions may be made for the use or possession of prescription nicotine products.

Failure to comply with this policy will be dealt with through the college's disciplinary procedures. Students, staff, visitors and tenants who breach the policy will be asked to cease use of said

product and may be asked to leave the premises if they fail to comply with that request. All breaches of this policy will be recorded in writing.

### Concealed Carry

In an effort to provide a safe learning and working environment, Gateway Technical College has initiated a policy prohibiting anyone except for authorized law enforcement personnel from bringing a weapon inside any college building. Gateway bans dangerous weapons, as defined by Wisconsin state statute and U.S. Code, inside college facilities or on college owned/controlled property (outside of approved storage in personal vehicles), which includes – but is not limited to – such items as knives and firearms.

Persons storing weapons within their own vehicles while parked on college owned, leased or operated lots or grounds should make sure of the following:

- Conceal the weapon from open view
- If a firearm, store the weapon in a secured (locked) case or install a locked trigger guard

### Restraining Orders/Orders of Protection

Anyone who has a restraining order or order of protection against another person that identifies College facilities/locations as protected sites must provide the Director of Security with a copy of any temporary, protective or restraining order. Working with the student, a determination will be made as to the measures that need to be taken to meet the requirements of the restraining order. In addition, individuals are encouraged to make a report to the Office for Equal Opportunity and Civil Rights at [gtc.edu/TitleIX](http://gtc.edu/TitleIX) for additional services and assistance, including safety planning.

### Sex Offenders on Campus

In accordance with the Campus Sex Crimes Prevention Act of 2000, which amends the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, the Jeanne Clery Act and the Family Educational Rights and Privacy Act of 1974, as well as Gateway policy **H-110: Equal Opportunity, Civil Rights and Sexual Harassment**, students who have been **convicted** of a sexual offense and are required to register with any state as a sex offender must disclose this information to the Office for Equal Opportunity and Civil Rights at by completing the self-disclosure form.

The form must be completed by hand and returned by mail to the Office for Equal Opportunity and Civil Rights (1001 Main St., Racine, WI 53403) or by email to [compliance@gtc.edu](mailto:compliance@gtc.edu)

The purpose of this disclosure is to allow appropriate Gateway staff members to work with the student to address any existing restrictions imposed by probation and/or parole and implement any necessary safety planning.

The college does not provide campus notifications of the existence of a sex offender on campus or share this information with anyone who does not have a need to know.

Those interested in locating sex offenders may do so by visiting the Wisconsin Department of Corrections Sex Offender Registry website.

All sex offenders are required to register in the state of Wisconsin and to provide notice of each institution of higher education in Wisconsin at which the person is employed or is a student.

### Equal Opportunity, Civil Rights and Sexual Harassment

#### Commitment to Equal Opportunity

Gateway adheres to all federal and state civil rights laws prohibiting discrimination in public institutions of higher education. The full and current copy of this policy (Policy H-110: Equal Opportunity, Civil Rights, and Sexual Harassment,) can be found under *Policies and Resources* at [gtc.edu/TitleIX](http://gtc.edu/TitleIX) and at [gtc.edu/eoo](http://gtc.edu/eoo).



# Student Rights and Responsibilities

To provide equal employment, advancement and learning opportunities to all individuals, employment and student admission decisions at Gateway will be based on merit, qualifications and abilities. Gateway does not discriminate against any employee, applicant for employment, student or applicant for admission on the basis of age, ancestry, color, creed, disability, gender identity or expression, marital status, membership in any reserve component of the armed forces, union affiliation, national origin, parental status, pregnancy, political affiliation, race, religion, sex, sexual orientation, veteran status (including disabled veteran; recently separated veteran; active-duty, wartime or campaign badge veteran; and Armed Forces Service Medal veteran), viewpoint expression or any other protected category under applicable local, state or federal law, including protections for those opposing discrimination or participating in any resolution process on campus or within the Equal Employment Opportunity Commission or other human rights agencies.

This policy covers nondiscrimination in all aspects of employment and educational opportunities. Therefore, anyone who acts to deny, deprive or limit the educational or employment access, benefits and/or opportunities of any member of the campus community, guest or visitor on the basis of their actual or perceived membership in the protected characteristics listed above is in violation of Gateway's policy on nondiscrimination.

For additional information on equal employment opportunity, civil rights and sexual harassment, refer to: [gtc.edu/TitleIX](http://gtc.edu/TitleIX) (sexual harassment) and [gtc.edu/eoo](http://gtc.edu/eoo) (affirmative action and non-sex-based discrimination).

## Affirmative Action

Gateway is committed to affirmative action for women, minorities, veterans and disabled individuals in employment and academic advancement. The college completes an affirmative action plan every year and uses this data to guide recruitment of underrepresented groups. Placement goals, when indicated, are neither rigid nor inflexible goals that set a ceiling or floor for employment of particular groups. Goals do not create set-asides for employment groups, nor are they intended to achieve proportional representation or equal results. They do not supersede objective criteria and merit selection principles. All employment decisions are made in a nondiscriminatory manner and placement goals are not used to extend a preference to any individual or adversely affect an individual employment status on the basis of race, sex, religion, etc. In addition, the college conducts an adverse impact analysis to identify possible barriers to employment for all groups to ensure equal employment opportunity.

Gateway's Affirmative Action Officer, Joshua Vollendorf, will share relevant information relating to the affirmative action plan with human resource leaders and other members of the college and the public through various methods. Select information regarding the affirmative action plan is published on the college's website at [gtc.edu/eoo](http://gtc.edu/eoo).

## Contact Person

Any questions concerning the Americans with Disability Act, Affirmative Action, Equal Opportunity, Civil Rights and Sexual Harassment or to report discrimination contact:

### **Joshua Vollendorf, MS, MSE, PHR**

Director of Compliance (Title IX Coordinator/ADA Coordinator)

Office for Equal Opportunity and Civil Rights

1001 S. Main Street, Racine, WI 53403

262-564-3062

[compliance@gtc.edu](mailto:compliance@gtc.edu)

Wisconsin Relay System: 711

## Title IX - Sexual Harassment and Sex Discrimination

Gateway Technical College is committed to provide our students, staff and campus visitors a safe learning and working environment. Title IX, which applies to students, employees and visitors, prohibits discrimination on the basis of sex. The term sex includes biological sex, sex stereotypes, gender identity, gender expression, sexual orientation and pregnancy or parenting status. Bullying, dating/domestic violence, sexual assault, harassment and stalking, are forms of sexual harassment prohibited under policy H-110: Equal Opportunity, Civil Rights and Sexual Harassment. The College recognizes the importance of providing a prompt, effective and equitable process in response to allegations of discrimination and/or sexual misconduct and resolves allegations of sexual harassment under policy H-130: Title IX Grievance Policy, available under Forms and Resources at [gtc.edu/TitleIX](http://gtc.edu/TitleIX).

Discrimination on the basis of sex is a violation of college policy and allegations of sex-based discrimination are resolved under policy H-120: Equity Resolution Process.

It is anticipated that new Title IX regulations will be issued sometime in the spring of 2024 which will impact these policies and resolutions processes. Please visit the website [gtc.edu/TitleIX](http://gtc.edu/TitleIX) and [gtc.edu/eo](http://gtc.edu/eo) for the most current policies.

Gateway also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internal or external to the institution. Any member of the campus community, guest or visitor who acts to deny, deprive or limit the educational, employment, residential or social access, opportunities and/or benefits of any member of the Gateway community on the basis of sex or any other protected class listed above is in violation of the Gateway's policy on Equal Opportunity, Civil Rights and Sexual Harassment.

### Reporting discrimination and harassment

Any person may report violations of the college's policy on Equal Opportunity, Civil Rights and Sexual Harassment, including, but not limited to, sex-based discrimination, harassment, sexual assault, domestic/dating violence, and/or stalking (whether or not the person reporting is the person alleged to have experienced the conduct), in person, by mail, by telephone, by video or by email, using the contact information listed for the Title IX Coordinator. A report may be made at any time (including during non-business hours) by filing a report at [gtc.edu/TitleIX](http://gtc.edu/TitleIX), sending an email or leaving a voicemail.

#### **Joshua Vollendorf, MS, MSE, PHR**

Director of Compliance (Title IX Coordinator/ADA Coordinator)

Office for Equal Opportunity and Civil Rights

1001 S. Main Street, Racine, WI 53403

262-564-3062

[compliance@gtc.edu](mailto:compliance@gtc.edu)

Wisconsin Relay System: 711

Additionally, even if the behavior took place off campus and the other party isn't a student or employee, Gateway will provide appropriate supportive measures, including accommodations, referrals and other assistance.

### Complaint Resolution Process

This summary is a high level overview of the policy and process. Students can find the detailed resolution procedures online at [gtc.edu/eo](http://gtc.edu/eo) (H-110 & H-120) and [gtc.edu/TitleIX](http://gtc.edu/TitleIX) (H-110 & H-130).

When the college receives a complaint, there are four possibilities that you should be aware of, as they govern how the college will proceed:

1. The complaint falls within Title IX AND is covered by the 2020 Title IX regulations.
2. The complaint falls within Title IX but is not covered by the 2020 Title IX regulations.

3. The complaint falls within VAWA Section 304[1].
4. The complaint does not fall within Title IX or VAWA Section 304.

Depending on which of these four possibilities the complaint falls within, the college must apply different policies and/or procedures, accordingly. As shorthand, we call the procedures that comply with the 2020 Title IX regulations (36 CFR Part 106.45) the Title IX Grievance Procedure (policy number H-130); and the alternate process to resolve complaints outside of the Title IX Grievance Procedure, we call the Equity Resolution Process (policy number H-120). Like the Title IX Grievance Procedure, the Equity Resolution Process is a civil rights-based process that is meant for violations that do not fall under Title IX and all other forms of civil rights violations.

The Title IX Grievance Procedure and Equity Resolution Process cannot both be simultaneously applied by the college. The regulations mandate that if both can apply, the Title IX Grievance Procedure must be applied, not the Equity Resolution Procedure. Further, the regulations specify that the Equity Resolution Process cannot be used as an end-run to avoid the Title IX Grievance Procedure if it applies, regardless of what process each party might prefer. For a Gateway to choose the Equity Resolution Process when Title IX Grievance Procedure applies would be considered a form of retaliation against the respondent.

Let's take each in turn to better explain this.

### **1. The complaint falls within Title IX AND is covered by the 2020 Title IX regulations**

The complaint will fall in this category when it alleges sexual harassment, sexual assault, domestic violence, dating violence and/or stalking (as defined by college policy, if proven) AND the conduct:

- Happened in the United States;
- Occurred where the college controls the context of the incident (a college program or property, typically);
- The school has jurisdiction over the respondent as a student or employee; and
- Happened to a complainant who, at the time of the complaint, was participating in or attempting to participate in the college's educational program.

These jurisdictional requirements are spelled out by the 2020 Title IX regulations and are rigid. If any of these requirements fails to be met, Gateway is required to "technically" dismiss the complaint. More in a bit on what happens if there is a technical dismissal, as that is not the end of the process. If these requirements are met, the resolution process will be the Title IX Grievance Process.

### **2. The complaint falls within Title IX, but is not covered by the 2020 Title IX regulations**

The complaint will fall in this category if it does not involve sexual harassment, sexual assault, domestic violence, dating violence and/or stalking, but the allegations pertain to sex discrimination more broadly, such as:

- disparate treatment, e.g., discrimination against a pregnant student; denial of access to a program; inequitable funding on the basis of sex;
- forms of sexual orientation discrimination;
- forms of gender identity/expression discrimination (based on sex stereotypes).

When a complaint is filed under Title IX, the regulations require these types of allegations to be technically dismissed. The college will then address them under the Equity Resolution Process. If there is no formal complaint made, they can be addressed using the Equity Resolution Process without needing to go through a dismissal first with respect to the Title IX Grievance Procedure.

### 3. The complaint falls within VAWA Section 304 (this could be an overlay with 1 or 2, above or a stand-alone status)

The complaint will fall in this category if it is not within the Title IX jurisdiction above (see four bullet points), but still involves sexual violence, dating violence, domestic violence or stalking. In this case, the college must address the conduct under procedures that comply with VAWA Section 304, and the complaint can be then addressed under the Equity Resolution Process. If there is no formal complaint made, the allegations can be addressed using the Equity Resolution Process without needing to go through a dismissal first with respect to the Title IX Grievance Procedure.

### 4. The complaint does not fall within Title IX or VAWA Section 304

Finally, where the complaint falls within neither Title IX nor VAWA Section 304, the college is not required by law to act on the complaint. However, the college will act with discretionary jurisdiction, meaning that it still thinks it is important to address the allegations even if law does not require it. The complaint can be then addressed under the Equity Resolution Process. If there is no formal complaint made, the allegation can be addressed using the Equity Resolution Process without needing to go through a technical dismissal first with respect to the Title IX Grievance Procedure.

Hopefully, what you now understand from this section is that the incidents that fall within Title IX Grievance Procedure occur within a narrow range. They must fit the description of sexual harassment, sexual assault, domestic violence, dating violence or stalking (as defined by Gateway's policy on H-110: Equal Opportunity, Civil Rights and Sexual Harassment, if proven) in the United States, where the college controls the context of the incident and has control over the respondent and the complainant is participating in or attempting to participate in the college's educational program. Outside of that, all sex offenses, sex discrimination and other civil rights complaints will fall within Equity Resolution Process, including those, for example, that happen between two students, off-campus, on private property.

The last part of jurisdiction to understand is dismissal. As noted above, Gateway is mandated to and must dismiss a formal complaint or any allegations therein if, at any time during an investigation or hearing under the Title IX Grievance Procedure, it is determined that:

- The conduct alleged in the formal complaint would not constitute sexual harassment, sexual assault, dating violence, domestic violence or stalking as defined in policy, even if proved; and/or
- The conduct did not occur in an educational program or activity controlled by the school (including buildings or property controlled by recognized student organizations), and/or the school does not have control of the respondent; and/or
- The conduct did not occur against a person in the United States; and/or
- At the time of filing a formal complaint, a complainant was not participating in or attempting to participate in the education program or activity of the recipient.

Then there are three permissive dismissal provisions. Gateway may, based on the judgement of the Title IX Coordinator, dismiss a formal complaint or any allegations therein if, at any time during the investigation or hearing:

- A complainant notifies the Title IX Coordinator in writing that the complainant would like to withdraw the formal complaint or any allegations therein; or
- The respondent is no longer enrolled in or employed by Gateway; or
- Specific circumstances prevent the recipient from gathering evidence sufficient to reach a determination as to the formal complaint or allegations therein.

Upon any dismissal, Gateway will send written notice of the dismissal and the rationale for doing so simultaneously to the parties. This dismissal decision is appealable by any party under

Gateway's procedures for appeal found in policy H-110: Equal Opportunity, Civil Rights and Sexual Harassment. The effect of a dismissal (permissive or mandated) is either that the complaint is done, or that the school reinstates it, usually within the Equity Resolution Process. Even if a complaint is done, supportive measures are still made available to the parties. Understanding these mechanisms can be helpful, but we know they're complex, so don't hesitate to call on the Title IX Coordinator for further explanation.

College-provided advisors may be called on to help determine if someone wants a complaint to be reinstated, or even under what process it should be filed in the first place. Where dismissed, advisors will be able to advise the parties on whether they want to appeal (for example, a complainant may be pleased by a Title IX Grievance Procedure dismissal if they would prefer Equity Resolution Process, whereas the respondent may feel the opposite) and what the effect of dismissal/reinstatement may be.

### Live Hearings

The live hearing component has received a lot of attention, so we wanted to take a moment to clarify some important details and hope they will help anyone making a decision about whether to file a formal Title IX complaint. Gateway has designed the process to be as humane and non-adversarial as possible, while ensuring fairness to all participants.

- There are informal resolution options offered by Gateway. Gateway cannot and will not force or coerce any student or employee into an informal resolution. Although it is true that a formal complaint must first be filed, that does not mean a live hearing must occur. A formal complaint can also lead to an informal resolution process and should an informal resolution fail, a formal grievance process is always still available.
- Live hearings do not have to happen with all parties in the same room. Any or all parties can opt for virtual participation at any time. Even with a virtual hearing, all participants will be able to see and hear each other throughout the hearing.
- Although there is "cross-examination" during the hearing, it may not work the way you think. The parties cannot question each other directly, at all. The advisors to the parties ask the questions, and before they do, the hearing officer, who is an administrative law judge with the Wisconsin Division of Hearings and Appeals, rules on each question first. So, there is really only indirect questioning, not "cross-examination" like you might find in a courtroom.
- Even though advisors get to ask questions of parties and witnesses, you may find that most of the questions are posed by the neutral decision-makers. Once those questions are posed, they cannot be asked again by the advisors, so in most cases, the questions come to the parties from the decision-makers, not from the other party's advisor.
- A written decision is issued based on the preponderance of the evidence standard (whether a policy violation is more likely than not) and offers a clear rationale for the decision.
- The decision is appealable by all parties.

The hearing process is kept confidential by Gateway.

### Supportive Measures

Parties have a right to equitable supportive measures. Complainants are entitled to supportive measures even if they choose not to file a formal complaint. Supportive measures include, but are not limited to, class or work accommodations, security escorts, referrals to counseling services, immigration referrals and safety planning.

### Rights of the Parties

All parties and witnesses have significant due process rights and a right to be free from retaliation by the college and any other party involved in the complaint or resolution process. These rights

are extensive and include, but are not limited to, the right to an advisor of one's choice to be present at meetings and to cross-examine the other party and witnesses at a live hearing for Title IX cases, be treated with dignity and respect, to provide a list of questions to be asked of other parties and witnesses, to review reports prior to finalization, preservation of privacy as required by law and a process free of bias and conflict of interest.

- Petition that any college representative in the process be recused (removed) on the basis of demonstrated bias or conflict-of-interest;
- Have the college compel the participation of faculty and staff witnesses and the opportunity (if desired) to provide the investigators with a list of potential questions to ask of witnesses and the right to challenge documentary evidence;
- Submit a written statement describing the impact of the alleged discrimination/misconduct to the Title IX investigator following determination of responsibility, but prior to sanctioning;
- Be promptly informed of the outcome and sanction of the resolution process in writing, without undue delay between the notifications to the parties;
- Be informed in writing of when a decision by the college is considered final, any changes to the sanction to occur before the decision is finalized, to be informed of the right to appeal the finding and sanction of the resolution process and the procedures for doing so in accordance with the standards for appeal established by the college.

In addition, the reporting party shall have the right to:

- Not have any personally identifiable information released to the public, without their consent;
- Not be pressured to mediate or otherwise informally resolve any reported misconduct involving violence, including sexual violence;
- Not be discouraged by college officials from reporting sexual misconduct or discrimination to both on-campus and off-campus authorities;
- Be informed by college officials of options to notify proper law enforcement authorities, including on-campus and local police and the option to be assisted by campus authorities in notifying such authorities, if the reporting party so chooses. This also includes the right not to be pressured to report.

### Disabilities Accommodation in the Equity Resolution Process

Gateway is committed to providing qualified students, employees or others with disabilities reasonable accommodations and support needed to ensure equal access to the Equity Resolution Process at the college. Students needing such accommodations or support should contact the Disability Support Services office on the campus of their choice, and employees should contact the Director of Compliance, who will review the request and, in consultation with the person requesting the accommodation, determine which accommodations are appropriate and necessary for full participation.

### Sanctions

Factors considered when determining a sanction/responsive action may include, but are not limited to:

- The nature, severity of and circumstances surrounding the violation
- An individual's disciplinary history
- Previous allegations or allegations involving similar conduct



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- The need for sanctions/responsive actions to bring an end to the discrimination, harassment and/or retaliation
- The need for sanctions/responsive actions to prevent the future recurrence of discrimination, harassment and/or retaliation
- The need to remedy the effects of the discrimination, harassment and/or retaliation on the Complainant and the community
- Any other information deemed relevant by the Director of Compliance

These factors can modify the typical sanction range.

The following are the common sanctions that may be imposed upon students singly or in combination, depending on the nature and facts of a specific claim.

- **Educational Activity:** Assignment of an appropriate educational activity, such as a webinar, reading, training, etc., that creates awareness and spurs behavioral change.
- **Warning:** A formal statement that the conduct was unacceptable and a warning that further violation of any Gateway policy, procedure or directive will result in more severe sanctions/responsive actions.
- **Restriction:** A limitation on the student's access to identified services, locations, education, community activities or persons. Issued for a specified time frame.
- **Restitution:** Issued to a student who has committed a violation of this policy that resulted in staff, institutional or another student's financial loss. May be issued as a condition of return or continued attendance in the college.
- **Referral:** Issued to a student who has committed a violation of this policy and it is determined that continued participation at the college is contingent upon the student attending designated services (college or private vendor) or programs. May be issued for a specified time frame or as permanent and may be issued as a condition of return to or continued attendance at the College.
- **Loss of Privileges:** Issued to a student who has committed a violation of this policy and it is determined that the student may continue attendance at the College with permanent or temporary limitations on the student's access to identified services, locations or educational community activities.
- **No Contact:** Issued to a student who has committed a violation of this policy and it is determined that the student may continue attendance at the College with permanent or temporary limitations on the student's access to or contact with an identified individual or group(s) of student and/or staff.
- **Disciplinary Probation:** Issued to a student who has committed a violation of this policy and will face additional sanctions if any additional violations occur during a specified time frame.
- **Emergency Removal:** Issued to a student, for a specified time frame, who has committed a major, egregious or continued violation(s) of this policy.
- **Expulsion/Dismissal:** Permanent removal, issued to a student who has committed a major, egregious or continued violation(s) of this policy.
- **Other Actions:** In addition to or in place of the above sanctions, the College may assign any other sanctions as deemed appropriate.

Sanctions range from a verbal warning to expulsion from the college, based on the offense and the factors noted above in addition to any mitigating, aggravating and/or compounding factors.

Responsive actions for an employee who has engaged in discrimination, harassment and/or retaliation include:

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- **Training:** Assignment of an appropriate training program (webinar, in-person event, etc.) that creates awareness and spurs behavioral change.
- **Warning:** A formal statement that the conduct was unacceptable and a warning that further violation of any Gateway policy, procedure or directive will result in more severe sanctions/responsive actions.
- **Restriction:** A limitation on the employee's access to identified services, locations or persons. Issued for a specified time frame.
- **Restitution:** Issued to an employee who has committed a violation of this policy that resulted in staff, institutional or student's financial loss. May be issued as a condition of return or continued employment in the College.
- **Referral:** Issued to an employee who has committed a violation of this policy and it is determined that continued employment at the College is contingent upon the employee attending designated services or programs. May be issued for a specified time frame or as permanent and may be issued as a condition of return or continued employment at the College.
- **Loss of Privileges:** Issued to an employee who has committed a violation of this policy and it is determined that the employee may continue employment at the College with permanent or temporary limitations on the employee's access to identified services, locations or College activities.
- **No Contact:** Issued to an employee who has committed a violation of this policy and it is determined that the employee may continue employment at the college with permanent or temporary limitations on the employee's access to or contact with an identified individual(s) or groups of student and/or staff.
- **Disciplinary Probation:** Issued to an employee who has committed a violation of this policy and will face additional sanctions if any additional violations occur during a specified time frame.
- **Emergency removal:** Issued to an employee, for a specified time frame, who has committed a major, egregious or continued violation(s) of this policy. Emergency removal may be unpaid depending on applicable College policy.
- **Termination of employment:** Permanent termination of employment for an employee who has committed a major, egregious or continued violation(s) of this policy.
- **Other Actions:** In addition to or in place of the above sanctions, the College may assign any other sanctions as deemed appropriate.

Sanctions range from a verbal warning to expulsion from the college, based on the offense and the factors noted above in addition to any mitigating, aggravating and/or compounding factors. The college retains the rights to issue sanctions outside the identified range depending on the individual circumstances.

Restrictions, loss of privileges, no contact orders, disciplinary probation, emergency removal and expulsion generally range from one day to five years. Students and employees must satisfy any and all requirements imposed at the time of the sanction to remove the sanction(s).

### Safety steps

Victims of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence or domestic violence are encouraged to review some or all of these safety suggestions designed to guide you after an incident has occurred:

1. Go to a safe place and speak with someone you trust. Tell this person what happened. If there is any immediate danger, call 911.

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2. Consider securing immediate professional support (e.g. counseling, victim advocacy, medical services, etc.) to assist you in the crisis.
3. If you are on campus during regular business hours, you may go to the Student Services Center to speak with a licensed professional counselor for support and guidance. These licensed counselors are confidential resources, and in most cases, they do not have a legal duty to report to the Title IX Officer.
4. For your safety and well-being, immediate medical attention is encouraged. Further, being examined as soon as possible, ideally within 120 hours, is important in the case of rape or sexual assault. The health care provider will arrange for a specific medical examination at no charge. To preserve evidence, it is recommended that you do not bathe, shower, douche, eat, drink, smoke, brush your teeth, urinate, defecate or change clothes before receiving medical attention.
5. Even after the immediate crisis has passed, consider seeking support from Student Support Services, the Student Support Counselor and/or the local sexual assault hotline as identified below:

<b>Student Support Services Contact Information</b>		
	Student Support	Local Sexual Assault Hotline
Elkhorn	1-800-247-7122	1-262-723-4653
Burlington	1-800-247-7122	1-262-637-7233
Kenosha	1-800-247-7122	1-800-823-3503
Racine	1-800-247-7122	1-262-637-7233
National hotline	1-800-656-4673	

6. Gateway will provide written notification to victims about options for available assistance and how to request changes to academic, living, transportation and working situations or protective measures. Contact the Director of Compliance (262-564-3062) if you need assistance with Gateway related concerns, such as no-contact orders or other protective measures. The Office for Equal Opportunity and Civil Rights will also assist in any needed advocacy for students who wish to obtain protective or restraining orders from local authorities. The college is able to offer reasonable academic accommodations, escorts, no contact orders, counseling services access and other support and resources as needed by a victim.
7. Additional information and resources for victims is available at [gtc.edu/TitleIX](http://gtc.edu/TitleIX).

## Reasonable Accommodations – H-150

### Equal Opportunities for Students with Disabilities

Gateway Technical College is committed to assisting the academic needs of every learner to ensure scholastic excellence is achieved and maintained.

Gateway offers accommodations within each Disability Support Services office. Disability Support Services provides a full range of support services/reasonable accommodations at the request of a student with documented disabilities to give them equal access to learning opportunities at Gateway in order to reach their educational goals.

### Accommodations for Pregnant and Parenting Students

We're here to support you and help you complete your education! Title IX provides students who are pregnant or experience a false pregnancy, have a child or adopt a child, terminate a

pregnancy or have a miscarriage. As a student with one of these conditions, you have the right to:

- Not be told to drop out or change education plans
- Be provided a comfortable space to pump milk
- Be excused from class due to pregnancy-related appointments (prenatal, give birth, have an abortion or be on doctor-ordered bed rest)
- Not have excused absences count against your grades
- Be provided the opportunity to make up missed work from excused absences
- Not be harassed as the result of pregnancy

Title IX does not assist with childcare issues, bonding time or similar parenting situations and challenges. What is meant by the context of Title IX is the medical recovery from the above conditions listed. Though not required by law, Gateway has extended these rights to your child as well, up to three months of age. Visit [gtc.edu/pregnancy](http://gtc.edu/pregnancy) for more information. To register with the Title IX Pregnancy and Parenting Program, visit [gtc.edu/pregnancy](http://gtc.edu/pregnancy).

Gateway students who are single parents (including pregnant students) can find support and resources by contacting Student Support Specialist Danyanna Dunn at [dunnd@gtc.edu](mailto:dunnd@gtc.edu) or 262-564-2439.

### Personal Needs/Lactation Rooms

Gateway provides private personal needs rooms that can be used for any need, including pumping breast milk, prayer, meditation and medication administration. For those who pump milk, please note that the college does not provide storage for breast milk. Advance planning is recommended so that you will have guaranteed access to the room. To access personal needs rooms, contact [tixpregnancy@gtc.edu](mailto:tixpregnancy@gtc.edu).

### Service Animals

The Americans with Disabilities Act (ADA) and Wisconsin law define a service animal as a dog or other animal that is individually trained to do work or perform tasks for a person with a disability. Examples include, but are not limited to, guiding individuals who are blind, alerting individuals with a hearing loss to sounds, alerting and protecting a person who is having a seizure, pulling a wheelchair or retrieving dropped items. Service dogs or other animals are working animals, not pets. The work or task a service dog or animal has been trained to provide must be directly related to the person's disability. Dogs or other animals whose sole function is to provide comfort or emotional support do not qualify as service animals. Gateway does not allow pets on campus.

Gateway welcomes service animals in all areas in which the public is allowed to go, though in limited circumstances, the college may impose restrictions (such as in food preparation areas or certain clinical practicum). Students with service animals are required to maintain current vaccinations of their animal and make sure their service animal is under control, housebroken and not disruptive to college operations (e.g. barking or running around). If a service animal is not controlled and the owner is asked to have the service animal removed from campus as a result, the individual with a disability will be allowed to obtain education, goods and services without having the service animal on campus.

### Student Religious Accommodations – J-170

In compliance with Wisconsin Administrative Code and the Civil Rights Act of 1964, Title IV, Gateway Technical College will make reasonable accommodations of a student's religious beliefs. A student may request reasonable accommodation from their instructor with regard to examinations and other academic requirements. The student request must be in writing and submitted to the instructor five (5) working days prior to the date(s) of the anticipated absence. Instructors will provide a means by which a student can perform the make-up examination or

other academic requirements in a timely manner without penalty. Should the student deem the accommodation unreasonable, the student should contact the Dean of the appropriate school/division. If the student disagrees with the approved accommodation or is denied an accommodation, they may contact the Office for Equal Opportunity and Civil Rights at 262-564-3062 to file a complaint.

## Computer, Networking and Information Resources – H-190

### Introduction

1. The H-190 policy set constitutes Gateway Technical College's policy for the management of the college's computing, networking and information resources. These resources include, but are not limited to, the central computing facilities, District-wide network, campus local area networks, email, classroom multimedia equipment, video conferencing equipment, Internet access, wireless access, voicemail, departmental and public computing facilities, scanners, printers, college-provided software tools, Learning Management System (LMS), data and related equipment and services.
2. Your use of Gateway computing and networking resources and information systems is governed by federal and state law; acceptable Internet use practices; Gateway policies; this Computing, Networking and Information Resources policy; and sub-policies under this policy set. Additionally, all Gateway policies regarding the appropriate use of Gateway resources and responsible personal conduct apply to your use of Gateway computing and networking resources and information systems.
3. Your use of any of the college's computing, networking and information resources constitutes your acceptance of this policy set.

### Policy

1. Gateway provides computing and networking facilities and information resources to support its mission. These facilities include Gateway computer labs, standalone Gateway computers and kiosks, communications networks, information systems and associated software, files and data. Your access to and use of Gateway computing and network resources is a privilege that depends on your using the resources appropriately. In general, appropriate use means respecting the rights of other users, the integrity of the physical equipment and systems, and following all pertinent license and contractual agreements.
2. Users do not own their college-provided accounts, including, but not limited to accounts in the following types of systems: email, Learning Management System (LMS), data-storage, student information systems. Users are provided temporary access/use of these systems for College purposes only.
3. Faculty, staff and students may use the college's computing and networking resources for College purposes related to their studies, their responsibilities for providing instruction and performing research, the discharge of their duties as employees, their official business with the college and other Gateway-sanctioned or authorized activities. In addition, residents of the District who have library cards may use computers in the public areas of Gateway libraries subject to compliance with all other rules and policies. The use of college computing and networking resources and information systems for any sort of solicitation is prohibited, absent prior written permission of the President or a Vice-President of the college.
4. Computing resources may be used only for legal purposes and may not be used for any of the following purposes or any other purpose which is illegal, immoral, unethical, dishonest, damaging to the reputation of the College, inconsistent with the mission of the college or likely to subject the college to liability. Impermissible uses (some of which may also constitute illegal uses) include, but are not limited to, the following:
  - a. Sending messages with the intent to frighten, intimidate, threaten, abuse or harass another person;
  - b. Intentionally and without authorization:

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- I. Accessing, modifying, destroying, taking possession of, distributing, or copying data, computer programs or supporting documentation;
  - II. Disclosing restricted access codes, passwords or other restricted access information to unauthorized persons;
  - III. Modifying computer equipment;
  - IV. Destroying or damaging a computer, computer system or computer network;
  - V. Sharing classroom/meeting video/audio links or transcripts provided by Instructors/Staff with any other person/entity.
- c. Disruption or unauthorized monitoring of electronic communications;
  - d. Unauthorized copying or transmission of copyright-protected material;
  - e. Unauthorized attempts to break into Gateway systems, networks, accounts or uncover security loopholes. This includes creating and/or running programs that are designed to identify security loopholes and/or decrypt intentionally secure data. Using Gateway systems or networks as any part of an attempt to break into or attempt to break into other systems or networks;
  - f. Downloading files or installing unauthorized software of any kind;
  - g. Use of identification numbers, usernames and/or authentication credentials assigned to others;
  - h. Use which constitutes academic dishonesty;
  - i. Violation of software license agreements;
  - j. Violation of network usage policies and regulations;
  - k. Accessing, displaying or sending obscene, pornographic, sexually explicit or offensive material;
  - l. Using any obscene, lewd or profane language or suggesting any lewd or lascivious act;
  - m. Intentional or negligent distribution of destructive programs such as computer viruses;
  - n. Use that is deemed unnecessary or excessive; use which facilitates violating other Gateway policies; and use which interferes or disrupts Gateway employees from performing their jobs.

### Account Guidelines

1. Once you are given access to computing resources at Gateway, you are responsible for any and all use made of those resources with your user identification. The following responsibilities apply to users accessing any of the college's computer and networking resources and information systems. The user is responsible for correct and sufficient use of the tools available for maintaining the security of information stored on each computer system.
  - a. Computer accounts, usernames, passwords and other types of authorization that are assigned to individual users may not be shared with others.
  - b. The user should assign an obscure account password and change it frequently.
  - c. No unauthorized persons may use Gateway computer and network resources. Authorized users include only Gateway employees, currently enrolled students and residents of the District who have obtained library cards.
2. Be sensitive to the needs of others, and use only your fair share of computing resources. Collegiality requires:
  - a. Regular deletion of unneeded files from one's accounts on shared computing resources;
  - b. Refraining from overuse of college-provided file storage space, printing facilities or network services;



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- c. Refraining from use of sounds and visuals which might be disruptive to others in the area;
  - d. Refraining from use of computing resources in an irresponsible manner.
3. All employees who become aware of or suspect a data breach or other misuse of protected College data must immediately report this to the CIRT (Cyber Incident Response Team), Tech Central or Talent and Culture.

### Role of Learning Innovation Division

1. Responsible system maintenance may require that files be backed up, data cached, activity logs kept and overall system activity monitored. In the process of these activities, Gateway staff may see your digital activities and files. The college shall also have access to and may monitor non-Gateway computer and network resources used by Gateway employees in the course of their official duties.
2. An account may also be inspected or monitored when:
  - a. Activity from an account prevents access to the college's computing or networking resources by others.
  - b. Activity from an account is disrupting or threatening the integrity and/or security of the network or network systems.
  - c. General usage patterns indicate that an account may be responsible for illegal activity.
  - d. LID receives reports of alleged law or policy violations.
  - e. It appears necessary to do so to protect Gateway from possible legal liability.
  - f. It is required by and consistent with law.
3. Whenever evidence of criminal activity is discovered, Gateway will provide the evidence of such activity to law enforcement officials in accordance with state and federal statutes.

### Sanctions for Technology Policy Violations

1. Violations of Gateway technology or security policy may result in disciplinary actions or the loss of privileges, including but not limited to, loss of access to computing resources as well as to Gateway disciplinary action up to and including termination, expulsion, and/or legal action.
2. Any offense that violates federal, state and/or local laws may result in the immediate loss of all Gateway computing privileges and will be referred to appropriate Gateway administrators and/or law enforcement authorities.
3. If Gateway Learning Innovation Division staff has evidence of misuse of computing and networking resources or information systems through a specific account, they will take the following steps to protect the systems, networks and the user community:
  - a. The suspected accounts will be suspended immediately pending the outcome of any investigation.
  - b. The user's email/internet/intranet, files, assigned drives and/or other data and computer accessible storage media on the account will be inspected for evidence.
  - c. Investigation of a student will be reported to the Student Success Division, and investigation of a faculty or staff member will be reported to that individual's supervisor when appropriate.
  - d. Any violation will be reported to the appropriate authorities:
    - i. Policy violations by a faculty or staff member will be reported to the individual's supervisor and to the Human Resources Department.
    - ii. Policy violations by a student will be reported to the campus dean and the executive vice president - academic affairs.

- iii. Policy violations by a District resident will be reported to the campus dean and the executive vice president - academic affairs.
- iv. Illegal activity by a faculty or staff member, student or District resident will be reported to the police and other appropriate law enforcement officials.

### DATA Storage and Protection

1. Gateway provides reasonable security against intrusion and damage to files stored on college-provided storage services. In the event that data has been corrupted as a result of suspected intrusion or malicious action, you must contact the Cyber Incident Response Team (CIRT) Team immediately at CIRT@gtc.edu.
2. Gateway provides limited backups for approved college-provided network/cloud storage options and may attempt to retrieve files specified by users and recover files after accidental loss of data on its storage services. However, Gateway cannot be held accountable for unauthorized access by other users and is not liable for the inadvertent or unavoidable loss or disclosure of the contents of stored files.
3. Gateway requires the use of college-provided network/cloud storage options for files typically stored on a laptop, desktop, or other mobile device. Users are responsible for storing data in the appropriate location.
  - Gateway recommends that students back up their own data on a regular basis. Gateway is not responsible for backup or any lost student data.
4. Employees must store important data on Gateway-provided storage services. Backups are not performed on Gateway endpoints/computers provided to faculty and staff.

## Digital Communications – H-190b

### Introduction - Purpose

Access to Gateway Technical College provided digital communications services, along with their responsible use, is critical for academic, administrative and promotional/marketing purposes. In addition to outlining required behaviors related to digital communications services, this policy is enacted in a spirit of presenting a positive, professional college image and enhancing Gateway's customer service efforts. This policy applies to all college employees, contractors, volunteers and students (all users).

### Definitions

Digital communications include: content in college-provided Google Apps accounts, email, calendars, Google Drive, content posted on college-administered websites, postings on college social media websites, usage of internet bandwidth and other tools that allow for the sharing/transmission of digital information.

**Students:** For the purpose of this policy, student means a person who has registered for classes or applied to a program in the past year.

## Policy

1. Gateway's digital communication services are college resources intended to be used for instruction, instructional support, faculty advising, service, administration and college-related correspondence in support of the college's mission.
2. Email remains an effective means of communicating official college information to students, employees and our community stakeholders. To this end, the college provides an email account for students, faculty, staff and other authorized persons who are affiliated with the college for their use when engaging in activities related to their roles in the college.
3. The college uses Gateway-provided email to communicate with students, faculty and staff and the college expects that those communications will be received and read in a timely fashion.
4. Student accounts will be disabled when they are determined to be "inactive" for an established time period.
5. Employee accounts are routinely disabled upon separation from the College. Exceptions are made periodically by Talent and Culture personnel for official purposes.
6. Employees of Gateway must use the college-provided email system for all official email communications. Employees may not use their own personal email accounts in any business or student-related correspondences. Employees corresponding with admitted students should send to the student's Gateway provided student email address.
7. Users are responsible for safeguarding their account username and password and for using them only as authorized. Each user is responsible for all digital communications made under the authorization of his or her account. Instances of accounts being compromised must be reported to the Learning Innovation Division (LID) Tech Central Help Desk immediately.
8. Unauthorized access of other users' accounts is strictly prohibited.
9. Access to digital communication services, while essential, also imposes on users certain accompanying responsibilities. The same standards of conduct that are expected of students, faculty and staff regarding the use of the college facilities, services and resources also apply to the use of college digital communication services.
10. Unauthorized access of other users' accounts is strictly prohibited.
11. Access to digital communication services, while essential, also imposes on users certain accompanying responsibilities. The same standards of conduct that are expected of students, faculty, and staff regarding the use of the college facilities, services, and resources also apply to the use of college digital communication services.
12. Users may not access, use or disclose personal or confidential information in the college's custody without appropriate authorization and they must take necessary precautions to protect the confidentiality of personal or confidential information in compliance with college policy and applicable law, regardless of whether the information is maintained on paper or whether it is found in email or other digital records.
13. In no instance may digital communication services or college computing resources be used for commercial, campaign or political purposes. Any promotion of outside businesses or groups must be related to college goals/initiatives and approved by a vice president of the college.
14. Digital communications may not be used with the intent to disrupt communication or other system services.
15. Digital communications that are interpreted as harassment by any recipient are prohibited. Please refer to policy H-110, Equal Opportunity, Sexual Misconduct and Civil Rights Policy Statement for definitions and further information.

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16. Using Gateway digital communication systems for malicious purposes (e.g. phishing, spamming, denial of service attacks, etc.) is prohibited.
17. Use of college-provided digital communication services for personal communications shall be comparable to what is allowed for personal local use of college telephones (See Policy D-110, Telephone Usage).
18. Limited personal use of digital communication services is permitted so long as that use:
  - a. does not create any cost to the college;
  - b. (in the case of employees) does not interfere with or take precedence over an employee's assigned duties;
  - c. is limited in volume and frequency;
  - d. is brief in duration;
  - e. does not disrupt college business;
  - f. does not compromise the security or integrity of college information, systems or software;
  - g. is not illegal;
  - h. is not otherwise prohibited by this policy, the employee Code of Conduct or any other college policy, college directive or departmental rule.
19. Digital communications must meet the same standards for distribution or display as if they were physical documents. Individuals must identify themselves clearly and accurately on all digital communications. Willful misrepresentation of oneself or another individual is not permitted on the college's network or in any other digital communication with other parties.
20. Digital communication must be designed, in accordance with division accessibility plans and to the fullest extent possible, so as to comply with section 504 of the Rehabilitation Act and the ADA and in a manner that makes them accessible to those with visual, auditory, and other disabilities.

### Web Accessibility

1. All new or revised web pages and other electronic resources, including those hosted, published, or otherwise provided by the college must comply with the current version of WCAG AA standards as required by section 508 of the Rehabilitation Act of 1973. The term "webpage" shall be interpreted broadly and does not depend on the type of service or hosting devices, or types of software used, or by the technical means in which the client and host communicate over the web.
2. All linked content, whether from Gateway's website, Learning Management System (LMS), mobile application(s) social media site(s), or other program(s) or services, must be accessible according to the current version of WCAG AA standards and other college policies, such as video captioning, webpages, or resources specifically requested to be made accessible shall be made accessible as soon as possible and without delay, or an equally effective alternative shall be provided. Equally effective means providing the same information and functions in a timely fashion comparable to the original webpage or resource.

### Email Retention, Archiving, and Privacy

1. Be advised that state law (Section 19.35 Wisconsin Statutes) requires that records created or kept by Gateway, including digital communications and electronic files, must be made available for public inspection and copying, subject to limited exceptions. In addition, unless protected by legal privilege, digital communications and electronic files can and will be discoverable in litigation that involves the college. Email backups will be retained for three (3) years, unless they are archived longer due to ongoing investigation/litigation.
2. While Gateway respects the privacy of users and does not routinely inspect or monitor an individual's use of the college's computing and network resources, the college cannot provide a guarantee of privacy of an individual's digital communication activities, electronic

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files, or system access records, etc. This information may be used in investigations and/or disciplinary proceedings at the college's discretion.

3. There should be no expectation of privacy in regard to digital communications of any kind sent or received from college email accounts or from college systems or computers.

### Student ID Photos

1. Student ID photos may be released by a divisional vice president or designee for security or safety purposes to authorized Gateway, security or law enforcement personnel.
2. In compliance with FERPA, any other uses of Student ID photos must be authorized in advance by a divisional vice president. Any such uses will only be granted at the discretion of a Student Services & Enrollment Management Vice President or designee and only for purposes related to Gateway business.

### Violations

Please refer to Policy H-190, Computer, Networking and Information Resources, for sanctions for inappropriate or illegal use of college computing resources.

## Data Security – H-190d

### Purpose

Gateway Technical College recognizes that as part of our operations we must collect and store data. The purpose of this policy is to describe how sensitive data must be handled, stored and secured in order to meet Gateway Technical College's data protection standards, comply with applicable laws, statutes and regulations, and protect the rights of staff, students and any related data subjects.

### Scope

This Data Security Policy applies to all business processes, information systems and components, personnel and physical areas of Gateway Technical College. This policy applies to the storage and handling of sensitive data and any other procedures related to sensitive data of any individual in both electronic and physical format. Individuals or groups this policy applies to include, but are not limited to:

- All current and past Gateway Board of Trustees members;
- All current and past employees of Gateway Technical College, regardless of full-time or part-time status;
- All contractors, suppliers, casual employees, work-studies and interns working on behalf of Gateway;
- Tenants of Gateway Technical College ;
- Clubs, associations, unions, etc. affiliated with Gateway;
- All students and customers of Gateway Technical College; and
- Any other individuals or entities working on behalf of Gateway Technical College.

The individuals and groups listed above are considered to be "Data Handlers" and will be referenced as such throughout this policy.

## Policy Statements

### BASELINE REQUIREMENTS:

- Employees will keep all data secure by taking reasonable precautions and following guidelines outlined within this policy and any associated procedures.
- Data may not be shared informally. Data access levels will be determined based on role and existing access controls.
- Gateway Technical College will provide training to all employees to help them understand their responsibilities when handling data.
- Sensitive data will not be disclosed to any unauthorized person, either within the organization or externally.
- Authorized entities or persons are required to have a legitimate business purpose, data sharing agreement, contracted vendor responsibilities statement, and or non-disclosure agreement which declares the data being shared as sensitive.
- LID will implement encryption on managed end points where applicable (examples include staff/faculty/lab computers and Gateway-issued mobile phones).

### DATA HANDLING:

- Data Handlers will handle sensitive data in a manner that is in accordance with the laws, regulations, and standards covered by this policy.
- When working with sensitive data, or when a user's account has access to sensitive data, users will ensure screens/computers are locked with a secure password when left unattended.
- Data Handlers and Data Controllers may not informally share sensitive data.
- Sensitive data may not be shared via email unless the data is protected by encryption. Contact your supervisor or the Learning Innovation Division if you need assistance in ensuring data is transmitted securely.
- Data Handlers and Data Controllers shall not unnecessarily duplicate sensitive data.
- Where applicable, Data Handlers and or Data Controllers will provide each Data Subject with information regarding the processing of their information.
- Data Handlers will act in the best interest of Data Subjects when handling sensitive data.

### DATA STORAGE:

- When data is stored electronically, it must be protected from unauthorized access, accidental deletion, and malicious hacking attempts.
- Data Handlers shall protect sensitive data with strong passwords.
- Data Handlers will refrain from saving data directly to end-user devices.
- Data Handlers will refrain from using removable media; if data is stored on removable media devices, they must be stored securely.
- Gateway Technical College data may only be stored on college-authorized networks, college-authorized cloud storage services, and/or college-authorized SaaS applications.
- Computing hardware that stores sensitive data shall be housed in secure locations.
- Data Handlers will refrain from storing data on paper and only print when necessary.
- When not actively in use, paper or files containing sensitive data must be kept in a locked drawer or filing cabinet.
- Data Handlers must ensure paper documents containing sensitive data are not left where unauthorized people could view them, for example, on a printer.



# Student Rights and Responsibilities

## DATA ACCURACY:

- Data Controllers and Data Handlers must take reasonable steps to ensure sensitive data is as accurate as possible.
- Data stored at Gateway Technical College is held in centralized locations. Data Handlers should refrain from duplicating/copying data to create local versions. The use of additional data sets may have a negative impact on data integrity. Where this practice may be required, Data Handlers must be aware of additional liabilities and safeguards that may be applicable.
- Where applicable, Gateway Technical College will ensure Data Subjects can easily update their information.

## DATA RETENTION:

- Data should be periodically reviewed and deleted or disposed of if no longer required by policy, procedure, or regulation. Physical destruction of data on hard drives must adhere to Policy E-200 - Disposal of College Property. The College will determine the appropriate retention periods for all types of data.
- College-authorized data backups shall be executed by authorized/assigned LID personnel.
- Paper documents and printer ribbons in designated departments must be shredded and disposed of securely when no longer required. The shred size of the refuse should be small enough that there is reasonable assurance in proportion to the data confidentiality that the data cannot be reconstructed.

## DATA PROTECTION:

- LID staff will utilize necessary physical and technical controls and organizational measures to ensure all infrastructure containing data is protected and secured.
- Data Controllers and Data Handlers must follow associated procedures and notify the Cyber Incident Response Team (CIRT) team by emailing [cirt@gtc.edu](mailto:cirt@gtc.edu) when reporting incidents or data breaches.
- Individual staff/faculty users of software systems acknowledge that they have responsibility for securing and protecting all College data (including PII of students, staff, etc, and FERPA protected student data).
- As part of its procedures, LID will analyze data security practices both internally and externally (with vendors/providers, etc.) to identify potential data security risks and will provide procurement recommendations to the software requester/budget officer.
- By procuring software or by approving the procurement of software, staff/faculty users acknowledge that they are responsible for the data stored/used in the aforementioned systems.
- By procuring software or by approving the procurement of software, staff/faculty users acknowledge any risks identified by LID staff during the pre-procurement assessment.

## NON-COMPLIANCE

Violations of this policy will be treated like other allegations of misconduct at Gateway Technical College.

Allegations of misconduct will be adjudicated according to established procedures. Sanctions for non-compliance may include, but are not limited to, one or more of the following:

1. Disciplinary action according to applicable Gateway Technical College policies.
2. Termination of employment.
3. Legal action according to applicable laws and contractual agreements.

## System Access, Identification and Authentication – H-190e

### Purpose

The purpose of this policy is to define standards for accessing Gateway Technical College's Network and Systems in a secure manner. These standards are designed to minimize the potential security exposure to Gateway Technical College from damages which may result from unauthorized use of Gateway Technical College resources or access to protected data. Authorization, identification and authentication controls ensure that only known users make use of the College Network and Systems. Without these controls, the potential exists that College Network and Systems could be accessed illicitly and that the security of College information could be compromised.

### Scope

This Identification and Authentication Policy applies to all networks, systems and system components, as well as all Authorized Individuals of all networks, systems and system components of Gateway Technical College. Specifically, it includes:

- All employees, whether employed on a full-time, part-time, limited term or casual employment basis by Gateway Technical College.
- All students, alumni and other community members who have a reason to access Gateway Technical College systems.
- All contractors and third parties that work on behalf of Gateway Technical College who have a reason to access Gateway Technical College systems.
- All tenants and other third parties that work on behalf of tenants who have a reason to access Gateway Technical College systems.

### Definitions

**Authorized Individuals:** Gateway Technical College faculty, staff, students, community members, contractors, vendors, service providers or any other individuals with authorized access to the information system in which the organization has the authority to impose rules of behavior with regard to system access.

**College Network and Systems:** Any Gateway Technical College network, system or system component with access to college protected data, including but not limited to FERPA, HIPAA and PII.

**Multifactor Authentication (MFA):** Authentication using two or more different factors to achieve access to a network or system. Possible factors include something you know (e.g., PIN or password); something you have (e.g., cryptographic identification device or token); or something you are (e.g., biometric).

### Policy Statements

- Gateway Technical College will authenticate (or verify) the identities of all users, system components or devices as a prerequisite to allowing access to the College Network and Systems. Centrally managed identity and access management infrastructure is a requirement of all system authentication functions as technology permits.
- Multifactor Authentication is the preferred form of user authentication used to grant access to Gateway Technical College Networks and Systems.
- Periodic password expiration time frames may be defined for Networks and Systems.
- Passwords may be screened against lists of commonly used or compromised passwords and eliminated from potential use.
- Minimum password complexity and change of characters when new passwords are created is enforced.

# Student Rights and Responsibilities

- Gateway Technical College will prohibit password reuse for a specified number of generations.
- Gateway Technical College will store and transmit only encrypted representation of passwords.
- LID will have administrator level access to all College Networks and Systems for the purpose of performing periodic or ad hoc audits of College Networks and Systems to verify compliance with this policy.
- Users are responsible for safeguarding their account username and password and for using them only as authorized. All instances or suspicion of account credentials being compromised must be reported to the Gateway Technical College Tech Central Help Desk at 262-564-3695 immediately.
- Sharing of credentials and the unauthorized access of other users' accounts is strictly prohibited.
- A network or system session timeout may be defined based on idle time and which may require the user to re-authenticate in order to re-activate the network or system access.

## Multifactor Options

The College will allow employees to choose from a selection of second factors for network or system login. These second factors, which may change from time to time, are described on the Gateway Technical College Intranet site in the section labeled "Learning Innovation Division" or "LID." The College may offer a physical hardware authentication device (e.g., a Yubikey) as a factor. The College will cover the cost of an initial authentication device for college employees who choose this option. Employees may purchase a replacement authentication device if the College-provided one is lost, stolen, broken or is otherwise unusable. An authentication device which has been lost or stolen must be reported to the Gateway Technical College Tech Central Help Desk at 262-564-3695 immediately.

## Exceptions

Exceptions to this policy will be considered by contacting the CIO or Director of Information Technology.

## Instructional IT Network Provisions

The Learning Innovation Division has worked with the Academic IT department to assist in establishing separate wired and wireless networks for academic IT purposes. The intention is to provide a network for instructional purposes with unique configurations that may have an impact on security and other data protection practices but that facilitates IT instruction. This separate network may be attached to the college backbone if sufficient protection is implemented and maintained to prevent any detriment to the college's production network. Certain provisions of this policy do not apply to applications/usage of this separate network. Separate instructional networks and their use by faculty and students are the sole responsibility of the associated academic department faculty and leadership. If LID becomes aware of detrimental impacts from the usage of the separate instructional network, staff will notify the Dean to take corrective action.

## Suspicion of Compromised Access or Unauthorized Activity

LID may revoke College Network or System access for a specific user(s) to investigate suspected compromised access or unauthorized activity.

## Non-Compliance

Violations of this policy will be adjudicated according to established Gateway Technical College procedures. Sanctions for non-compliance may include, but are not limited to, one or more of the following:

1. Temporary or permanent revocation of network, system and/or email access.
2. Disciplinary action according to applicable Gateway Technical College policies.
3. Separation or termination of employment.
4. Legal action according to applicable laws and contractual agreements.

## Local and Remote Systems Protection – H-190f

### Purpose

The purpose of this policy is to ensure proper measures are in place to prevent unauthorized physical or remote access or damage to the College's network, systems and facilities. This policy will also define the means of authorized access to the College's network, systems and facilities.

### Scope

This Local and Remote Systems Protection Policy applies to all networks, systems, system components, personnel and physical areas of Gateway Technical College. Local and Remote Systems areas include but are not limited to:

- Data centers or other facilities for which the primary purpose is the housing of IT infrastructure.
- Server rooms or other locations within shared facilities for which one of the primary purposes is the housing of IT infrastructure.
- Networks, systems or IT infrastructure accessible via some method of remote connectivity.
- Gateway Technical College equipment which may be located in a non-college location.
- Switch and wiring closets or other facilities for which the primary purpose is not the housing of IT infrastructure.

### Definitions

**IT Infrastructure:** The combined set of hardware, software, structured cabling, telecommunications, network equipment, enterprise data storage devices and physical facilities used to develop, test, deliver, monitor, control or support IT services, and which may have access to college protected data, including but not limited to FERPA, HIPAA and PII.

**Authorized Individuals:** May be some subset of Gateway Technical College faculty, staff, students, community members, contractors, vendors, service providers or any other individuals with authorized access to Gateway Technical College IT Infrastructure and on which the organization has the authority to impose rules of behavior with regard to local or remote access.

**Authorized Student VPN Users:** A subset of Authorized Individuals who are Gateway Technical College students actively enrolled in a course and who require limited remote access to Gateway Technical College IT Infrastructure using a provided VPN client and only at the request of an instructor.

**Multifactor Authentication (MFA):** Authentication using two or more different factors to achieve access to a network or system. Possible factors include something you know (e.g., PIN or password); something you have (e.g., cryptographic identification device or token); or something you are (e.g., biometric).

**Remote Access:** The ability for users or devices to utilize the College's private network and systems from a location outside of the network's physical premises.

## Policy Statements

### Local Access and Security:

Gateway Technical College will limit and monitor physical access to data centers, server rooms, switch and wiring closets and other facilities housing IT Infrastructure to specific Authorized Individuals in conformance with policy E-115, Facility Access and Control.

### Network and Systems Access:

- Gateway Technical College will authenticate or verify the identities of all remote users, processes, or devices as a prerequisite to allowing remote access to the College's network and systems.
- Any remote access technology will be in compliance with policy H190e, System Access, Identification, and Authentication.
- Gateway Technical College shall remove Authorized Individuals from this access when access is no longer required.
- Multifactor Authentication is the preferred form of user authentication used to grant remote access to Gateway Technical College's networks and systems.
- Gateway Technical College may require an Authorized Individual to complete a Security Management Questionnaire and/or Network Access Agreement prior to granting remote network or system access.
- Gateway Technical College may require an Authorized Individual previously approved for remote access to provide a reason for accessing remote network or system resources for each new remote access event.
- Authorized Non-Student Users are permitted remote access to the College via VPN client, virtual desktop, remote desktop, or other LID-approved methods. The VPN client can only be installed and used on a College-owned device.
- Authorized Student users may be permitted remote access to the College using one or more of the following methods depending on the use case; College-provided VPN client, virtual desktop, remote desktop, or other LID-approved methods. LID will work with faculty to identify the appropriate technology to use for remote access.

### Additional Security Guidelines:

- Gateway Technical College staff will verify the identity of any third-party persons claiming to be repair or maintenance personnel prior to granting them local or remote access to modify or troubleshoot any Gateway Technical College network or systems.
- Gateway Technical College staff will immediately report suspicious behavior and indications of device tampering or substitution to the Tech Central Help Desk, a supervisor or security.

## Exceptions

Exceptions to this policy will be considered by contacting the CIO or Director of Information Technology.

## Instructional IT Network Provisions

The Learning Innovation Division has worked with the Academic IT department to assist in establishing separate wired and wireless networks for academic IT purposes. The intention is to provide a network for instructional purposes with unique configurations that may have an impact on security and other data protection practices but that facilitates IT instruction. This separate

network may be attached to the college backbone if sufficient protection is implemented and maintained to prevent any detriment to the college's production network. Certain provisions of this policy do not apply to applications/usage of this separate network. Separate instructional networks and their use by faculty and students are the sole responsibility of the associated academic department faculty and leadership. If LID becomes aware of detrimental impacts from the usage of the separate instructional network, staff will notify the Dean to take corrective action.

### **Suspicion of Compromised Access or Unauthorized Activity**

LID may revoke college network or system access for a specific user or users to investigate suspected compromised access or unauthorized activity.

### **Non-Compliance**

Violations of this policy will be adjudicated according to established Gateway Technical College procedures. Sanctions for non-compliance may include, but are not limited to, one or more of the following:

1. Temporary or permanent revocation of network, system and/or email access.
2. Disciplinary action according to applicable Gateway Technical College policies.
3. Separation or termination of employment.
4. Legal action according to applicable laws and contractual agreements.



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## Special Notices

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for a period of two years or take more than one year to complete.

Tuition and material fees are determined by the Board of the Wisconsin Technical College System. Please consult the Gateway website [gtc.edu](http://gtc.edu) for exact fee amounts.

Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

Course materials listed in this catalog were effective for the 2024-2025 academic year.

Course descriptions are merely general summaries of various courses which may be offered at Gateway Technical College during the 2024-2025 academic year. Gateway reserves the right to modify course content at any time and to cancel any tentatively scheduled course due to low enrollment. Course descriptions were accurate as of March 1, 2024. Some courses offered by Gateway Technical College require successful completion, concurrent enrollment, or waiver.

Some courses offered by Gateway Technical College have enrollment which is restricted to persons formally accepted for admission into specific programs.



**CAMPUS/CENTER LOCATIONS**

	Elkhorn	Burlington	HERO	Kenosha	Horizon	Lakeview	Racine	iMET	Online
<b>TECHNICAL DIPLOMAS</b>	■		■	■			■		■
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# 2024-2025 Gateway Technical College Technical Diploma Programs

(current as of date printed)  
Most programs may be started on any campus.

	<b>Length of Program (full time)</b>
Advanced EMT (30-531-6) .....	20 Weeks
Accounting Assistant (31-101-1) .....	1 Year
Automotive Maintenance Technician (31-404-3) .....	1 Year
Barber Technologist (30-502-5) .....	1 Year
Building Trades-Carpentry (31-475-1) .....	1 Year
Business Services Manager (31-102-5) .....	1 Year
CNC Production Technician (31-444-2) .....	1 Year
CNC Programmer (31-444-3) .....	1 Year
Construction Management Technician (31-455-1) .....	1 Year
Cosmetology (31-502-1) .....	1 Year
Criminal Justice – Law Enforcement 720 Academy (30-504-2) .....	18 Weeks
Culinary Assistant (31-316-1) .....	1 Year
Dental Assistant (31-508-1) .....	1 Year
Diesel Equipment Mechanic (31-412-1) .....	1 Year
Electromechanical Maintenance Technician (31-620-3) .....	1 Year
Electronics Technician Fundamentals (30-605-1) .....	1 Year
Emergency Medical Technician (30-531-3) .....	20 Weeks
EMT-Paramedic (31-531-1) .....	1 Year
Facilities Maintenance (31-443-2) .....	1 Year
Fire Science (30-503-5) .....	1 Year
Horticulture Technician (31-001-1) .....	1 Year
IT – Computer Support Technician (31-154-6) .....	1 Year
IT – Web Programmer (31-152-6) .....	1 Year
Medical Assistant (31-509-1) .....	1 Year
Nursing Assistant (30-543-1) .....	15 Weeks
Office Assistant (31-106-1) .....	1 Year
Ophthalmic Medical Assistant (31-516-4) .....	15 Weeks
(Shared Program with Lakeshore Technical College)	
Practical Nursing (31-543-1) .....	1 Year
Refrigeration, Air Conditioning and Heating Service Technician (31-401-1) .....	1 Year
Veterinary Assistant .....	1 Year
Truck Driving (30-458-1) .....	1 Year
Welding (31-442-1) .....	1 Year
Welding/Maintenance and Fabrication (30-442-2) .....	18 Weeks

## 2024-2025 Gateway Technical College Apprenticeship Programs

(current as of date printed)

- |   |   |
|---|---|
| Arborist Apprentice (50-001-1)                            | Machine Repair Apprentice (50-420-6)                    |
| Barbering Apprentice (50-502-5)                           | Machinist Apprentice (50-420-2)                         |
| Construction Electrical Apprentice (50-413-2)             | Maintenance Mechanic – Millwright Apprentice (50-423-1) |
| Cosmetology Apprentice (50-502-1)                         | Maintenance Technician Apprentice (50-481-1)            |
| Culinary Apprentice (50-316-3)                            | Mechatronics Technician Apprentice (50-620-1)           |
| Facilities Maintenance Technician Apprentice (50-464-1)   | Mold Maker Apprentice (50-439-5)                        |
| HVAC Apprentice (50-401-9)                                | Plumbing Apprentice (50-427-3)                          |
| Industrial Manufacturing Technician Apprentice (50-420-9) | Press Set-Up Operator (50-420-10)                       |
|   | Tool & Die Apprentice (50-439-3)                        |

■ Most program courses taught at this location – some travel may be required to other locations. Locations may differ for full-time and part-time. General Studies courses are offered on all campuses.



**Accounting (10-101-1)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	O
1	890-155	1	📍 Gateway to Success (G2S)		F	F/S/SU
1	*101-114	4	🎓 Accounting Principles <sup>3</sup>		F	F/S/SU
1	*101-128	3	🎓 QuickBooks Online <sup>3</sup>	Coreq: 101-114 OR 101-112	F	F/S/SU
1	103-143	3	Computers for Professionals <sup>3</sup>		F	F/S/SU
1	804-135	3	Quantitative Reasoning <sup>2,3</sup>	Prereq: 834-109	F	F/S/SU
2	*101-119	3	Payroll Accounting <sup>3</sup>		S	F/S/SU
2	*101-106	3	Accounting Spreadsheet Applications <sup>3</sup>	Prereq: 103-143 OR 103-102	S	F/S/SU
2	*101-104	4	Income Tax Accounting <sup>3</sup>		S	F/S/SU
2	*101-116	3	🎓 Corporate Accounting	Prereq: 101-114; Coreq: 804-135; 801-136; 103-143 OR 103-102	S	F/S/SU
2	801-136	3	English Composition 1 <sup>2,3</sup>	Prereq: 831-103 OR 851-757	S	F/S/SU
3	801-196 OR 801-198	3	Oral/Interpersonal Communication OR Speech <sup>3</sup>		SU	F/S/SU
3	809-195 OR 809-143	3	Economics <sup>2,3</sup> OR Microeconomics <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU	F/S/SU
4	*102-160	3	Business Law <sup>3</sup>		F	F/S/SU
4	*101-121	4	Intermediate Accounting	Prereq: 804-135; 801-136; 101-116	F	F/S/SU
4	*101-131	4	Management Accounting	Prereq: 101-114	F	F/S/SU
4	*101-129	3	Integrated Accounting & Analytics	Prereq: 101-106; 101-116	F	F/S/SU
5	*101-105 OR *101-103	2	Accounting Career Readiness OR Internship for Accounting	Coreq: 101-121; 101-131 Prereq: Instr. Consent; Coreq: 101-121	S	F/S/SU
5	*101-155	3	Financial Analysis/Management	Prereq: 101-106; Coreq: 101-121	S	F/S/SU
5	*101-107	3	Accounting Capstone	Prereq: 101-104; 101-119 OR 101-143; 101-121; 101-131; 101-154 OR 101-128; Coreq: 101-155	S	F/S/SU
5	809-198	3	Psychology, Intro to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	S	F/S/SU
5	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S	F/S/SU

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Accounting (10-101-1)

*Accounting* covers the principles of accounting, including budgeting, financial analysis, cost accounting, tax preparation, and other commercial aspects. Students are taught to interpret figures and what they actually mean to the company or organization. Entry level jobs for the accounting graduate include junior or assistant accountant, bookkeeper, cost accountant, property accountant, and payroll accountant. If taken full-time, this is a two-year course of study.

### Program Learning Outcomes

Graduates will be able to:

1. Apply Generally Accepted Accounting Principles to financial transactions throughout the accounting cycle.
2. Analyze financial and business information to support planning and decision-making.
3. Use a commercial software package to record and report financial information.
4. Prepare payroll journal entries, related reports and filings.
5. Perform cost accounting calculations, journal entries, reporting, and analysis tasks.
6. Perform individual tax accounting preparation, reporting and analysis tasks.
7. Apply employability skills for entry into the accounting field.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 64 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

114-101 Personal Financial Planning	102-122 Investments
801-197 Technical Reporting	809-172 Diversity Studies, Intro to
804-189 Introductory Statistics	809-196 Sociology, Intro to

### Notes

1. Accounting is a laptop program. Students will need a Windows-Based computer (with a hard drive) for use in the classroom. Please note MAC computers are not compatible with some of the required software.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

Gateway Technical College's Accounting program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**





**Part-Time Pathway to Success**  
School of Business and Transportation

**Accounting (10-101-1)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-E = Kenosha/evenings, E-E = Elkhorn/evenings, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E	E-E	O
1	890-155	1	📍 Gateway to Success (G2S)		F	F	F/S/SU
1	*101-114	4	🎓 Accounting Principles <sup>3</sup>		F	F	F/S/SU
1	103-143	3	Computers for Professionals <sup>3</sup>		F	F	F/S/SU
2	804-135	3	Quantitative Reasoning <sup>2, 3</sup>	Prereq: 834-109	S	S	F/S/SU
2	*101-128	3	🎓 QuickBooks Online <sup>3</sup>	Coreq: 101-114 OR 101-112	S	S	F/S/SU
2	*101-119	3	Payroll Accounting <sup>3</sup>		S	S	F/S/SU
3	*101-116	3	🎓 Corporate Accounting	Prereq: 101-114; Coreq: 804-135; 801-136; 103-143 OR 103-102	SU	SU	F/S/SU
3	801-136	3	English Composition 1 <sup>2, 3</sup>	Prereq: 831-103 OR 851-757	SU	SU	F/S/SU
4	*102-160	3	Business Law <sup>3</sup>		F	F	F/S/SU
4	*101-106	3	Accounting Spreadsheet Applications <sup>3</sup>	Prereq: 103-143 OR 103-102	F	F	F/S/SU
4	*101-104	4	Income Tax Accounting <sup>3</sup>		F	F	F/S/SU
5	*101-121	4	Intermediate Accounting	Prereq: 804-135; 801-136; 101-116	S	S	F/S/SU
5	*101-131	4	Management Accounting	Prereq: 101-114	S	S	F/S/SU
6	801-196 <b>OR</b> 801-198 809-195	3	Oral/Interpersonal Communication <b>OR</b> Speech <sup>3</sup> Economics <sup>2,3</sup>		SU	SU	F/S/SU
6	<b>OR</b> 809-143	3	<b>OR</b> Microeconomics <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU	SU	F/S/SU
7	*101-129	3	Integrated Accounting & Analytics	Prereq: 101-106; 101-116	F	F	F/S/SU
7	*101-155	3	Financial Analysis/Management	Prereq: 101-106; Coreq: 101-121	F	F	F/S/SU
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F	F	F/S/SU
8	809-198	3	Psychology, Intro to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	S	S	F/S/SU
8	*101-105 <b>OR</b> *101-103	2	Accounting Career Readiness <b>OR</b> Internship for Accounting	Coreq: 101-121; 101-131 Prereq: Instructor Consent; Coreq: 101-121	S	S	F/S/SU
8	*101-107	3	Accounting Capstone	Prereq: 101-104; 101-119 OR 101-143; 101-121; 101-131; 101-154 OR 101-128; Coreq: 101-155	S	S	F/S/SU

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Accounting (10-101-1)

*Accounting* covers the principles of accounting, including budgeting, financial analysis, cost accounting, tax preparation, and other commercial aspects. Students are taught to interpret figures and what they actually mean to the company or organization. Entry level jobs for the accounting graduate include junior or assistant accountant, bookkeeper, cost accountant, property accountant, and payroll accountant. If taken full-time, this is a two-year course of study.

### Program Learning Outcomes

Graduates will be able to:

1. Apply Generally Accepted Accounting Principles to financial transactions throughout the accounting cycle.
2. Analyze financial and business information to support planning and decision-making.
3. Use a commercial software package to record and report financial information.
4. Prepare payroll journal entries, related reports and filings.
5. Perform cost accounting calculations, journal entries, reporting, and analysis tasks.
6. Perform individual tax accounting preparation, reporting and analysis tasks.
7. Apply employability skills for entry into the accounting field.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 64 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

102-122 Investments	809-172 Diversity Studies, Intro to
114-101 Personal Financial Planning	801-197 Technical Reporting
804-189 Introductory Statistics	809-196 Sociology, Intro to

### Notes

1. Accounting is a laptop program. Students will need a Windows Based computer (with a hard drive) for use in the classroom. Please note MAC computers are not compatible with some of the required software.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

Gateway Technical College's Accounting program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [www.acbsp.org].

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## Administrative Professional (10-106-6)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq- with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*106-021	3	Business Office Fundamentals		F
1	*106-028	3	Office Technologies Essentials		F
1	*106-137	3	Keyboarding Applications <sup>2</sup>		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*106-019	1	Admin. Services Internship I	Prereq: Instr. Consent & 106-137; Coreq: 106-024; 801-136; 804-135	S
2	*106-024	3	Professionalism in Business		S
2	*106-025	3	Spreadsheets for Business	Prereq: 106-137	S
2	*106-026	3	Business Publications	Prereq: 106-137	S
2	*106-030	3	Word Processing for Business	Prereq: 106-137	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	101-112 <b>OR</b> 101-114	3 <b>OR</b> 4	Accounting for Business <b>OR</b> Accounting Principles <sup>2</sup>		SU
3	801-196	3	Oral/Interpersonal Communication		SU
4	*106-022	3	Info Management for Business	Prereq: 106-137	F
4	*106-029	3	Presentations for Business	Prereq: 106-137	F
4	*106-190	3	Administrative Office Procedures	Prereq: 106-025	F
4	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
5	*106-006	3	Business Communication Skills	Prereq: 106-137; 106-030; 801-136	S
5	*106-020	1	Admin. Services Internship II	Prereq: Instr. Consent; 106-137; 024	S
5	*106-023	3	Office Management		S
5	*106-027	3	Integrated Business Projects	Prereq: 106-025; 804-135	S
5	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Administrative Professional (10-106-6)

The *Administrative Professional* program prepares individuals to perform administrative and office support activities. Students will develop skills in word processing, spreadsheets, presentation software, filing/records management, and production of business documents. Extensive software skills are acquired, as well as Internet research abilities and oral and written communication skills. Professional development training includes ethics, group interaction, problem-solving, self-awareness, and professionalism.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate effective workplace communications.
2. Apply technology skills to business and administrative tasks.
3. Perform routine administrative procedures.
4. Manage administrative tasks.
5. Maintain internal and external relationships.
6. Model professionalism in the workplace.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Minimum grade of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

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**Part-Time Pathway to Success**  
School of Business and Transportation

## Administrative Professional (10-106-6)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
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**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*106-137	3	🎓 Keyboarding Applications <sup>2</sup>		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*106-024	3	🎓 Professionalism in Business		S
2	*106-026	3	Business Publications	Prereq: 106-137	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	801-196	3	Oral/Interpersonal Communication		SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*106-021	3	Business Office Fundamentals		F
4	*106-028	3	Office Technologies Essentials		F
4	*106-030	3	Word Processing for Business	Prereq: 106-137	F
5	*106-006	3	Business Communication Skills	Prereq: 106-137; 106-030; 801-136	S
5	*106-019	1	Admin. Services Internship I	Prereq: Instructor Consent & 106-137; Coreq: 106-024; 801-136; 804-135	S
5	*106-025	3	Spreadsheets for Business	Prereq: 106-137	S
6	101-112	3	Accounting for Business		SU
	OR	OR			
6	101-114	4	Accounting Principles <sup>2</sup>		
6	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
7	*106-022	3	Info Management for Business	Prereq: 106-137	F
7	*106-029	3	Presentations for Business	Prereq: 106-137	F
7	*106-190	3	Administrative Office Procedures	Prereq: 106-025	F
8	*106-020	1	Admin. Services Internship II	Prereq: Instructor Consent; 106-137; 106-024	S
8	*106-023	3	Office Management		S
8	*106-027	3	Integrated Business Projects	Prereq: 106-025; 804-135	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

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### **Administrative Professional (10-106-6)**

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### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate effective workplace communications.
2. Apply technology skills to business and administrative tasks.
3. Perform routine administrative procedures.
4. Manage administrative tasks.
5. Maintain internal and external relationships.
6. Model professionalism in the workplace.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Minimum grade of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@qtc.edu](mailto:cfpl@qtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Advanced Manufacturing Technology (10-664-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

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Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq-before/ coreq-with)	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*628-109	3	Mechanical Skills for Technicians		F
1	*612-102	3	Intro to Pneumatics & Hydraulics		F
1	*664-100	2	Intro to Industrial Control Systems <sup>2</sup>		F
1	*664-105	2	🎓 Intro to Industrial Robots <sup>2</sup>		F
1	*664-110	2	🎓 Intro to Mechatronics <sup>2</sup>		F
1	*664-116	2	Intro to Mfg Quality Control Systems		F
2	*620-108	3	Fundamentals of Industrial Controls		S
2	*664-103	3	Motor Controls for Manufacturing		S
2	*664-104	2	Industrial Control System Applications	Coreq: 664-103; 664-118	S
2	*664-112	3	Fundamentals of Machining Processes		S
2	*664-118	3	PLC & HMI Programming		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S+
3	*664-120	2	Intro to Industrial Internet of Things (IIoT) <sup>2</sup>		SU
3	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	SU+
3	809-195	3	Economics <sup>1</sup>	Prereq: 838-105 OR 851-757	SU+
4	*606-128	2	CAD – Solidworks		F
4	*664-119	3	Advanced Manufacturing Network Systems		F
4	*664-121	2	Vision and Smart Sensors	Prereq: 664-118 OR 605-136; 664-103 OR 664-102	F
4	*664-123	2	Advanced Industrial Robotics	Prereq: 664-105; 664-118	F
4	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F+
5	*664-113	3	Leadership for Advanced Manufacturing		S
5	*664-115	2	Interpreting Engineering Drawings	Prereq: 804-135	S
5	*664-117	2	Materials and Processes	Prereq: 664-100; 664-110; 801-136	S
5	*664-124	3	Integrated Systems Capstone	Prereq: Instructor Consent: 664-118; 664-123	S
5	801-198	3	Speech <sup>2</sup>		S+

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Advanced Manufacturing Technology (10-664-2)**

Advanced Manufacturing Technology combines mechanical, electronic, and information technology into a single discipline that crosses the traditional boundaries of a skilled technician. Advanced Manufacturing technicians need a broad understanding of mechanical and electrical principles, and the use of data to optimize the manufacturing process through intelligent automation. These industry certifications are embedded in the program: Snap on Hand tool Safety, Snap on Multimeter, OSHA 10, and Starrett Precision Measurement.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Apply state and national safety rules to the manufacturing systems environment.
2. Analyze automation within a complex manufacturing system.
3. Manage advanced manufacturing systems for operational efficiency and cost control.
4. Analyze technical specifications for implementation of manufacturing systems, modules, and components.
5. Explore a Proportional Integral Derivative (PID) control system to achieve a desired outcome in a manufacturing outcome.
6. Integrate industrial control systems into manufacturing processes.
7. Apply electronic principles to devices within a complex manufacturing systems.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
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#### **Graduation Requirements**

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Advanced Manufacturing Technology (10-664-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq-before/ coreq-with)	I-D
1	890-155	1	◊ Gateway to Success (G2S)		F+
1	*628-109	3	Mechanical Skills for Technicians		F
1	*664-110	2	🎓 Intro to Mechatronics <sup>2</sup>		F
1	*664-100	2	Intro to Industrial Control Systems <sup>2</sup>		F
2	*620-108	3	Fundamentals of Industrial Controls		S
2	*664-112	3	Fundamentals of Machining Processes		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S+
3	*664-120	2	Intro to Industrial Internet of Things (IIoT) <sup>2</sup>		SU
3	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	SU+
3	809-195	3	Economics <sup>1</sup>	Prereq: 838-105 OR 851-757	SU+
4	*612-102	3	Intro to Pneumatics & Hydraulics		F
4	*664-105	2	🎓 Intro to Industrial Robots <sup>2</sup>		F
4	*664-116	2	Intro to Mfg Quality Control Systems		F
5	*664-103	3	Motor Controls for Manufacturing		S
5	*664-104	2	Industrial Control System Applications	Coreq: 664-103; 664-118	S
5	*664-118	3	PLC & HMI Programming		S
6	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU+
6	801-198	3	Speech <sup>2</sup>		SU+
7	*606-128	2	CAD – Solidworks		F
7	*664-119	3	Advanced Manufacturing Network Systems		F
7	*664-121	2	Vision and Smart Sensors	Prereq: 664-118 OR 605-136; 664-103 OR 664-102	F
7	*664-123	2	Advanced Industrial Robotics	Prereq: 664-105; 664-118	F
8	*664-113	3	Leadership for Advanced Manufacturing		S
8	*664-115	2	Interpreting Engineering Drawings	Prereq: 804-135	S
8	*664-117	2	Materials and Processes	Prereq: 664-100; 664-110; 801-136	S
8	*664-124	3	Integrated Systems Capstone	Prereq: Instructor Consent: 664-118; 664-123	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Advanced Manufacturing Technology (10-664-2)

Advanced Manufacturing Technology combines mechanical, electronic, and information technology into a single discipline that crosses the traditional boundaries of a skilled technician. Advanced Manufacturing technicians need a broad understanding of mechanical and electrical principles, and the use of data to optimize the manufacturing process through intelligent automation. These industry certifications are embedded in the program: Snap on Hand tool Safety, Snap on Multimeter, OSHA 10, and Starrett Precision Measurement.

### Program Learning Outcomes

Graduates will be able to:

1. Apply state and national safety rules to the manufacturing systems environment.
2. Analyze automation within a complex manufacturing system.
3. Manage advanced manufacturing systems for operational efficiency and cost control.
4. Analyze technical specifications for implementation of manufacturing systems, modules, and components.
5. Explore a Proportional Integral Derivative (PID) control system to achieve a desired outcome in a manufacturing outcome.
6. Integrate industrial control systems into manufacturing processes.
7. Apply electronic principles to devices within a complex manufacturing systems.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Aeronautics – Pilot Training (10-402-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*402-129	3	🎓 Aviation / Introduction <sup>6</sup>		F
1	*402-136	3	Aero Science – Aviation Weather	Coreq: 402-129	F
1	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	F+
1	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	F+
2	*402-139	3	Aero Science – Engine/ Structure/ System		S
2	*402-178	2	Private Pilot I <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-129; 402-136; Inst. Consent Coreq: 402-181	S
2	*402-181	1	Private Pilot Ground Theory/App I <sup>6</sup>	Prereq: 402-129; 402-136; Inst.Consent Coreq: 402-178	S
2	801-198	3	Speech <sup>6</sup>		S+
2	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	S+
3	*402-179	1	Private Pilot II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-178; Inst. Consent Coreq: 402-182	SU
3	*402-180	1	Private Pilot III <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-179; Inst. Consent Coreq: 402-182	SU
3	*402-182	1	Private Pilot Ground Theory/App II <sup>6</sup>	Prereq: 402-178; 402-181; Inst. Consent	SU
3	809-196	3	Sociology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+
4	*402-135	3	Aero Science – Aerophysics/Aerodynamics	Prereq: 804-135; 801-136	F
4	*402-137	3	Aero Science – Instrument	Prereq: 402-129	F
4	*402-184	1	Commercial I Multitengine-Intro <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-180; Inst. Consent	F
4	*402-185	1	Commercial II Instr. Procedures <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-184; Inst. Consent Coreq: 402-137	F
4	*402-186	1	Commercial III Instr. Procedures II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-185; Inst. Consent Coreq: 402-137	F
4	*402-196	1	Flight Proficiency I <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-184; Inst. Consent Coreq: 402-185	F
4	*402-197	2	Flight Proficiency II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-180; Inst. Consent	F
5	*402-123	2	Aircraft Systems – Advanced	Prereq: 402-139	S
5	*402-133	3	Aero Science – Commercial	Prereq: 402-129	S
5	*402-138	3	Aero Science – Aviation Safety		S
5	*402-188	1	Instrument Procedures I <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-137; 186; Inst. Consent Coreq: 402-190	S
5	*402-189	1	Instrument Procedures II <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-188; Inst. Consent Coreq: 402-190	S
5	*402-190	2	Instrument Theory and Application <sup>6</sup>	Prereq: 402-186; Inst. Consent	S
6	*402-120	2	Aero Decision Making	Prereq: Instructor Consent; 402-173 Coreq: 402-138	SU
6	*402-192	2	Commercial IV Cross Country <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-189; Inst. Consent Coreq: 402-193	SU
6	*402-193	1	Commercial V Basic Comm. Manuevers <sup>2,3,4,5,6,7,8,9</sup>	Prereq: Inst. Consent Coreq: 402-192	SU
6	*402-194	1	Commercial VI Advanced Comm. Manuevers <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-193; Inst. Consent	SU

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## **Aeronautics – Pilot Training (10-402-1)**

*Aeronautics-Pilot Training* develops the skills and knowledge, through academic and practical application, necessary for an entry-level career as a professional pilot. Required aircraft training and electives include commercial certificate with single engine, multi-engine, and instrument ratings. Actual certification is dependent upon successful completion of an external assessment by the individual student.

### **Program Learning Outcomes**

Graduates will be able to:

1. Maintain compliance with procedures and practices contained in the Federal Aviation Regulations (FAR's), Aeronautical Information Manual (AIM), and other applicable FAA publications.
2. Obtain the Federal Aviation Administration (FAA) certification as a Commercial Pilot for single and multi-engine land planes with an instrument rating.
3. Demonstrate Single-pilot Resource Management (SRM).
4. Act as a professional member of the aviation community.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Students must maintain a 2.0 GPA in Aviation Core courses (402 courses) to continue with flight training.
3. A student supplied tablet computer is required for all flight courses. Please contact the department prior to purchasing a tablet for the minimum specification sheet.
4. A valid FAA 2<sup>nd</sup> class (or higher) medical certificate is required prior to beginning 402-178. All other flight courses require only a 3<sup>rd</sup> class medical certificate.
5. Proof of U.S. Citizenship or TSA approval required prior to beginning any flight course.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. Students must meet current petition requirements at the time they are eligible to enroll. Students must petition each semester for their flight courses and are selected based on completion of academic eligibility requirements and district residency. See <https://www.gtc.edu/admissions/additional-resources/petitioning/petitioning-eligibility>.
8. In order to meet the FAA requirements for proficiency, and to successfully complete the course under FAA Part 141, students may need to enroll in a non-degree course to purchase additional flight time.
9. All flight courses are offered every semester.
10. Fees for external assessments are not included in the course fees and are the responsibility of the student.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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## Aeronautics – Pilot Training (10-402-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
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**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

FTerm	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*402-129	3	Aviation / Introduction <sup>6</sup>		F
1	*402-136	3	Aero Science – Aviation Weather	Coreq: 402-129	F
1	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	F+
2	*402-139	3	Aero Science – Engine/ Structure/ System		S
2	*402-178	2	Private Pilot <sup>1,2,3,4,5,6,7,8,9</sup>	Prereq: 402-129; 402-136; Inst.Consent Coreq: 402-181	S
2	*402-181	1	Private Pilot Ground Theory/App I <sup>6</sup>	Prereq: 402-129; 402-136; Inst.Consent Coreq: 402-178	S
2	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	S+
3	*402-179	1	Private Pilot II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-178; Inst.Consent Coreq: 402-182	SU
3	*402-180	1	Private Pilot III <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-179; Inst.Consent Coreq: 402-182	SU
3	*402-182	1	Private Pilot Ground Theory/App II <sup>6</sup>	Prereq: 402-178; 402-181; Inst. Consent	SU
3	801-198	3	Speech <sup>6</sup>		SU+
3	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+
4	*402-137	3	Aero Science – Instrument	Prereq: 402-129	F
4	*402-184	1	Commercial I Multitengine-Intro <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-180; Inst. Consent	F
4	*402-185	1	Commercial II Instr. Procedures <sup>1,2,3,4,5,6,7,8,9</sup>	Prereq: 402-184; Inst. Consent Coreq: 402-137	F
4	*402-186	1	Commercial III Instr. Procedures II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-185; Inst. Consent Coreq: 402-137	F
4	*402-196	1	Flight Proficiency I <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-184; Inst. Consent Coreq: 402-185	F
4	*402-197	2	Flight Proficiency II <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-180; Inst. Consent	F
5	*402-133	3	Aero Science – Commercial	Prereq: 402-129	S
5	*402-135	3	Aero Science – Aerophysics/Aerodynamics	Prereq: 804-135; 801-136	S
5	*402-188	1	Instrument Procedures <sup>1,2,3,4,5,6,7,8,9</sup>	Prereq: 402-137; 186; Inst. Consent Coreq: 402-190	S
5	*402-189	1	Instrument Procedures II <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-188; Inst. Consent Coreq: 402-190	S
5	*402-190	2	Instrument Theory and Application <sup>6</sup>	Prereq: 402-186; Inst. Consent	S+
6	*402-138	3	Aero Science – Aviation Safety		SU
6	*402-192	2	Commercial IV Cross Country <sup>2,3,4,5,6,7,8,9</sup>	Prereq: 402-189; Inst. Consent Coreq: 402-193	SU
6	809-196	3	Sociology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+
7	*402-120	2	Aero Decision Making	Prereq: Instructor Consent; 402-173 Coreq: 402-138	F
7	*402-123	2	Aircraft Systems – Advanced	Prereq: 402-139	F
7	*402-193	1	Commercial V Basic Comm. Manuevers <sup>6</sup>	Prereq: Inst. Consent Coreq: 402-192	F
7	*402-194	1	Commercial VI Advanced Comm. Manuevers <sup>2,3,4,5,6,7,8,9,10</sup>	Prereq: 402-193; Inst. Consent	F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum grade of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## **Aeronautics – Pilot Training (10-402-1)**

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### **Program Learning Outcomes**

Graduates will be able to:

1. Maintain compliance with procedures and practices contained in the Federal Aviation Regulations (FAR's), Aeronautical Information Manual (AIM), and other applicable FAA publications.
2. Obtain the Federal Aviation Administration (FAA) certification as a Commercial Pilot for single and multi-engine land planes with an instrument rating.
3. Demonstrate Single-pilot Resource Management (SRM).
4. Act as a professional member of the aviation community.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 61 credits with an average of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Students must maintain a 2.0 GPA in Aviation Core courses (402 courses) to continue with flight training.
3. A student supplied tablet computer is required for all flight courses. Please contact the department prior to purchasing a tablet for the minimum specification sheet.
4. A valid FAA 2<sup>nd</sup> class (or higher) medical certificate is required prior to beginning 402-178. All other flight courses require only a 3<sup>rd</sup> class medical certificate.
5. Proof of U.S. Citizenship or TSA approval required prior to beginning any flight course.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. Students must meet current petition requirements at the time they are eligible to enroll. Students must petition each semester for their flight courses and are selected based on completion of academic eligibility requirements and district residency. See <https://www.gtc.edu/admissions/additional-resources/petitioning/petitioning-eligibility>.
8. In order to meet the FAA requirements for proficiency, and to successfully complete the course under FAA Part 141, students may need to enroll in a non-degree course to purchase additional flight time.
9. All flight courses are offered every semester.
10. Fees for external assessments are not included in the course fees and are the responsibility of the student.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Architectural – Structural Engineering Technician (10-614-6)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-E = iMET Center/evenings, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-E	E-E
1	890-155	1	Gateway to Success (G2S)		F+	F
1	*607-104	3	Building Material & Construction Method <sup>3</sup>		F	F
1	*607-136	2	Construction Project Management <sup>3</sup>		F	F
1	*607-141	2	Construction Basics <sup>3</sup>		F	F
1	*607-170	2	AutoCAD for Construction Sciences <sup>3,5</sup>		F	F
1	804-135	3	Quantitative Reasoning <sup>1,5</sup>	Prereq: 834-109	F+	F
	OR 804-115	5	College Technical Math 11 <sup>5</sup>	Prereq 834-110		
2	*607-102	2	Conflict Resolution in CET <sup>3,5</sup>		S	S
2	*607-128	3	Construction Estimating <sup>3</sup>	Coreq: 804-115 OR 804-135; 801-136	S	S
2	*607-129	2	Future Trends Civil/Archi Tech <sup>3</sup>	Prereq: 607-104; 607-141 OR 607-103	S	S
2	*607-132	3	Structural Mechanics <sup>3</sup>	Prereq: 804-115 OR 804-135	S	S
2	*614-102	2	Construction Project Management 2 <sup>3</sup>	Prereq: 607-136	S	S
2	801-136	3	English Composition 11 <sup>5</sup>	Prereq: 831-103 OR 851-757	S+	S
3	*607-148	1	Wood-Design & Detailing <sup>3</sup>	Prereq: 607-132	SU	SU
3	*607-169	2	Surveying Basics <sup>3</sup>		SU	SU
3	809-195	3	Economics <sup>1,5</sup>	Prereq: 838-105 OR 851-757	SU+	SU
3	*614-150	2	3D CAD: Building Information Modeling <sup>3</sup>		SU	SU
3	*607-187	2	3D CAD: Dig Terrain Model <sup>3</sup>		SU	SU
4	*607-134	2	Steel – Design and Detailing <sup>3</sup>	Prereq: 607-132	F	F
4	*614-108	1	Residential Code <sup>3</sup>		F	F
4	*614-110	3	Architectural Drafting – Residential <sup>3</sup>	Prereq: 614-150; Coreq: 614-108	F	F
4	*614-140	3	Mechanical Systems for Buildings <sup>3</sup>	Prereq: 607-104	F	F
4	809-198	3	Psychology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	F+	F
4	801-197	3	Technical Reporting	Prereq: 801-136	F+	F
5	*607-135	2	Reinforced Concrete-Design & Detailing <sup>3</sup>	Prereq: 607-132	S	S
5	*614-107	3	Residential and Commercial Inspection <sup>3</sup>	Prereq: 607-104; 614-108 ; Coreq: 614-114	S	S
5	*614-114	2	Commercial Code <sup>3</sup>		S	S
5	*614-115	3	Architectural Drafting – Commercial <sup>3</sup>	Prereq: 614-150; Coreq: 614-114	S	S
5	*614-123	1	Capstone: Architectural Structural Tech <sup>3</sup>	Prereq: 607-134 OR 614-100; Coreq: 614-115; 607-135 OR 614-101	S	S
5	*614-138	1	3D Modeling and Virtualization <sup>3</sup>	Prereq: 614-150; 607-187	S	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## **Architectural – Structural Engineering Technician (10-614-6)**

*Architectural-Structural Engineering Technician* focuses on a wide variety of aspects within the profession of Engineering – beginning with surveying, transitioning into design, and resulting in construction. The first year classes are mostly the same for programs in the Construction Sciences Group (see notes). Basic skills are developed and students are exposed to all areas of the various professions. This allows the student to be able to understand and communicate across the professions, plus it allows the student to discover what area they really enjoy working in. The second year focuses on aspects specific to buildings, both design and structural components. The program is designed as a fusion of education and application; hence all the core classes are tied to real world experiences with a significant influx of participation from potential future employers. Some students use this program as a place to prepare themselves to transfer to a four-year university. Most, however, use this program as a means to develop the skills that allow them to obtain a productive career in various aspects of architecture.

### **Program Learning Outcomes**

Graduates will be able to:

1. Develop Construction Documents
2. Evaluate Building Materials
3. Develop building designs
4. Integrate building systems

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. This is a very intense and challenging program. Poor existing skills, especially poor math skills, can always be improved. As long as you have the heart and desire to succeed, the instructors will work with you.
3. Classes offered at Elkhorn Campus via NODAL delivery. Please see an advisor for details.
4. The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Architectural-Structural Engineering Technician, Construction Management Technician, and Material Testing Inspector Certificate.
5. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
6. Students wishing to pursue Calculus courses at Gateway should take 804-115 College Technical Math 1. Please see an advisor for details.
7. Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2<sup>nd</sup> semester.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Architectural – Structural Engineering Technician (10-614-6)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**I-E = iMET Center/evenings, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-E	E-E
1	890-155	1	☐ Gateway to Success (G2S)		F+	F
1	*607-141	2	Construction Basics <sup>3</sup>		F	F
1	*607-104	3	🎓 Building Material & Construction Method <sup>3</sup>		F	F
1	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	F+	F
	OR 804-115	5	College Technical Math 1 <sup>1,6</sup>	Prereq 834-110		
2	*607-102	2	Conflict Resolution in CET <sup>3,6</sup>		S	S
2	*607-129	2	Future Trends Civil/Archi Tech <sup>3</sup>	Prereq: 607-104; 607-141 OR 607-103	S	S
2	*607-132	3	🎓 Structural Mechanics <sup>3</sup>	Prereq: 804-115 OR 804-135	S	S
2	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	S+	S
3	*607-169	2	Surveying Basics <sup>3</sup>		SU	SU
3	*614-150	2	3D CAD: Building Information Modeling <sup>3</sup>		SU	SU
3	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	SU+	SU
4	*607-136	2	🎓 Construction Project Management <sup>3</sup>		F	F
4	*614-108	1	Residential Code <sup>3</sup>		F	F
4	*614-110	3	Architectural Drafting – Residential <sup>3</sup>	Prereq: 614-150; Coreq: 614-108	F	F
4	*614-140	3	Mechanical Systems for Buildings <sup>3</sup>	Prereq: 607-104	F	F
5	*614-102	2	Construction Project Management 2 <sup>3</sup>	Prereq: 607-136	S	S
5	*607-128	3	Construction Estimating <sup>3</sup>	Coreq: 804-115 OR 804-135; 801-136	S	S
5	*614-114	2	Commercial Code <sup>3</sup>		S	S
5	*614-115	3	Architectural Drafting – Commercial <sup>3</sup>	Prereq: 614-150; Coreq: 614-114	S	S
6	*607-148	1	Wood-Design & Detailing <sup>3</sup>	Prereq: 607-132	SU	SU
6	*607-187	2	3D CAD: Dig Terrain Model <sup>3</sup>		SU	SU
6	809-195	3	Economics <sup>1</sup>	Prereq: 838-105 OR 851-757	SU+	SU
7	*607-134	2	Steel – Design and Detailing <sup>3</sup>	Prereq: 607-132	F	F
7	801-197	3	Technical Reporting	Prereq: 801-136	F+	F
7	*607-170	2	AutoCAD for Construction Sciences <sup>3,6</sup>		F	F
8	*607-135	2	Reinforced Concrete-Design & Detailing <sup>3</sup>	Prereq: 607-132	S	S
8	*614-107	3	Residential and Commercial Inspection <sup>3</sup>	Prereq: 607-104; 614-108 ; Coreq: 614-114	S	S
8	*614-123	1	Capstone: Architectural Structural Tech <sup>3</sup>	Prereq: 607-134 OR 614-100; Coreq: 614-115; 607-135 OR 614-101	S	S
8	*614-138	1	3D Modeling and Virtualization <sup>3</sup>	Prereq: 614-150; 607-187	S	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Architectural – Structural Engineering Technician (10-614-6)

*Architectural-Structural Engineering Technician* focuses on a wide variety of aspects within the profession of Engineering – beginning with surveying, transitioning into design, and resulting in construction. The first year classes are mostly the same for programs in the Construction Sciences Group (see notes). Basic skills are developed and students are exposed to all areas of the various professions. This allows the student to be able to understand and communicate across the professions, plus it allows the student to discover what area they really enjoy working in. The second year focuses on aspects specific to buildings, both design and structural components. The program is designed as a fusion of education and application; hence all the core classes are tied to real world experiences with a significant influx of participation from potential future employers. Some students use this program as a place to prepare themselves to transfer to a four-year university. Most, however, use this program as a means to develop the skills that allow them to obtain a productive career in various aspects of architecture.

### Program Learning Outcomes

Graduates will be able to:

1. Develop Construction Documents
2. Evaluate Building Materials
3. Develop building designs
4. Integrate building systems

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. This is a very intense and challenging program. Poor existing skills, especially poor math skills, can always be improved. As long as you have the heart and desire to succeed, the instructors will work with you.
3. Classes offered at Elkhorn Campus via NODAL delivery. Please see an advisor for details.
4. The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Architectural-Structural Engineering Technician, Construction Management Technician and Material Testing Inspector Certificate.
5. Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2<sup>nd</sup> semester.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. Students wishing to pursue Calculus courses at Gateway should take 804-115 College Technical Math 1. Please see an advisor for details.

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## Automotive Technology (10-602-3)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*602-130	3	Auto Shop Essentials		F
1	*602-107	2	Auto Service Fundamentals <sup>4</sup>	Prereq: 602-130	F
1	*602-104	3	Brake Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
1	*602-124	3	Steering & Suspension Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
2	*602-125	2	Electrical & Electronic Systems 1 <sup>4</sup>	Prereq: 602-107; 602-130; Coreq: 804-135	S
2	*602-127	3	Electrical & Electronic Systems 2	Prereq: 602-125	S
2	*602-196	3	Climate Control Systems <sup>4</sup>	Prereq: 602-127	S
2	*602-204	3	Engine Repair 1 <sup>4</sup>	Prereq: 602-107; 602-130	S
2	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	S+
3	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	SU+
3	801-196	3	Oral/Interpersonal Communication		SU+
3	809-196	3	Sociology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU+
4	*602-197	3	Engine Performance 1 <sup>4</sup>	Prereq: 602-127; 602-204; 804-135; Coreq: 801-136	F
4	*602-129	3	Auto Scope and Scanner Diagnosis	Prereq: 602-197; 801-136	F
4	*602-128	3	Electrical & Electronic Systems 3	Prereq: 602-127	F
4	*602-149	4	Manual Drive Train & Axles <sup>4</sup>	Prereq: 602-107; 602-130	F
4	809-198	3	Psychology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	F+
5	*602-195	2	Advanced Chassis Systems	Prereq: 602-104; 602-124; 602-127	S
5	*602-205	2	Engine Repair 2	Prereq: 602-204	S
5	*602-109	4	Auto Transmission/Transaxle <sup>4</sup>	Prereq: 602-127	S
5	*602-198	4	Engine Performance 2 <sup>4</sup>	Prereq: 602-197	S
5	*602-120		Auto Service Simulation	Prereq: 602-104; 602-124; 602-128; 602-129;	S
	<b>OR</b>	<b>2</b>	<b>OR</b>	602-196; 602-198; 602-205	
	*602-131		Automotive Service Internship	Prereq: Instructor Consent	

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Automotive Technology (10-602-3)**

*Automotive Technology* is a two-year repair and maintenance curriculum, totaling over 1,800 hours of automotive instruction. Students desiring to become entry-level line technicians at automotive dealerships or independent repair facilities will be prepared for ASE Master Certification in all areas of automotive mechanical repairs. Students will become competent in engine performance, engine repair, manual and automatic drive lines, transmissions and transaxles, electrical systems, and electronics, using a simulated work environment on vehicles.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate professionalism appropriate to the auto service industry.
2. Perform diagnosis, service and repair of automotive internal combustion engines.
3. Perform diagnosis, service and repair of automotive automatic transmission / transaxle systems.
4. Perform diagnosis, service and repair of automotive manual drive train and axles systems.
5. Perform diagnosis, service and repair of automotive steering and suspension steering systems.
6. Perform diagnosis, service and repair of automotive brake systems.
7. Perform diagnosis, service and repair of auto electrical/electronic systems.
8. Perform diagnosis, service and repair of automotive heating and air conditioning systems.
9. Perform diagnosis, service and repair of automotive engine performance systems.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A student supplied tablet computer is required for all 602 courses. Please contact the department prior to purchasing a computer for the minimum specification sheet.
3. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Part-Time Pathway to Success**  
School of Business and Transportation

**Automotive Technology (10-602-3)**  
Associate of Applied Science  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HZ-E = Horizon Center/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-E
1	890-155	1	Gateway to Success (G2S)		F+
1	*602-130	3	Auto Shop Essentials		F
1	*602-107	2	Auto Service Fundamentals <sup>4</sup>	Prereq: 602-130	F
1	*602-104	3	Brake Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
1	*602-124	3	Steering & Suspension Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
2	*602-125	2	Electrical & Electronic Systems 1 <sup>4</sup>	Prereq: 602-107; 602-130 Coreq: 804-135	S
2	*602-127	3	Electrical & Electronic Systems 2	Prereq: 602-125	S
2	*602-196	3	Climate Control Systems <sup>4</sup>	Prereq: 602-127	S
2	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	S+
3	*602-204	3	Engine Repair 1 <sup>4</sup>	Prereq: 602-107; 602-130	SU
3	*602-197	3	Engine Performance 1 <sup>4</sup>	Prereq: 602-127; 602-204; 804-135 Coreq: 801-136	SU
3	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	SU+
4	*602-129	3	Auto Scope and Scanner Diagnosis	Prereq: 602-197; 801-136	F
4	*602-128	3	Electrical & Electronic Systems 3	Prereq: 602-127	F
4	*602-149	4	Manual Drive Train & Axles <sup>4</sup>	Prereq: 602-107; 602-130	F
5	*602-195	2	Advanced Chassis Systems	Prereq: 602-104; 602-124; 602-127	S
5	*602-205	2	Engine Repair 2	Prereq: 602-204	S
5	*602-109	4	Auto Transmission/Transaxle <sup>4</sup>	Prereq: 602-127	S
5	801-196	3	Oral/Interpersonal Communication		S+
6	*602-198	4	Engine Performance 2 <sup>4</sup>	Prereq: 602-197	SU
6	*602-120		Auto Service Simulation	Prereq: 602-104; 602-124; 602-128; 602-129; 602-196; 602-198; 602-205	SU
	<b>OR</b>	<b>2</b>	<b>OR</b>		
	*602-131		Automotive Service Internship	Prereq: Instructor Consent	
6	809-196	3	Sociology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU+
6	809-198	3	Psychology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU+

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Automotive Technology (10-602-3)**

*Automotive Technology* is a two-year repair and maintenance curriculum, totaling over 1,800 hours of automotive instruction. Students desiring to become entry-level line technicians at automotive dealerships or independent repair facilities will be prepared for ASE Master Certification in all areas of automotive mechanical repairs. Students will become competent in engine performance, engine repair, manual and automatic drive lines, transmissions and transaxles, electrical systems, and electronics, using a simulated work environment on vehicles.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate professionalism appropriate to the auto service industry.
2. Perform diagnosis, service and repair of automotive internal combustion engines.
3. Perform diagnosis, service and repair of automotive automatic transmission / transaxle systems.
4. Perform diagnosis, service and repair of automotive manual drive train and axles systems.
5. Perform diagnosis, service and repair of automotive steering and suspension steering systems.
6. Perform diagnosis, service and repair of automotive brake systems.
7. Perform diagnosis, service and repair of auto electrical/electronic systems.
8. Perform diagnosis, service and repair of automotive heating and air conditioning systems.
9. Perform diagnosis, service and repair of automotive engine performance systems.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A student supplied tablet computer is required for all 602 courses. Please contact the department prior to purchasing a computer for the minimum specification sheet.
3. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Business Management (10-102-3)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F/S/SU
1	*101-114	4	Accounting Principles <sup>2</sup>		F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	*101-112	3	Accounting for Business		
1	*102-137	3	Intro to Business <sup>2</sup>		F/S/SU
1	*102-160	3	Business Law <sup>2</sup>		F/S/SU
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F/S/SU
2	*104-101	3	Marketing Principles <sup>2</sup>		F/S/SU
2	*104-104	3	Selling Principles		F/S/SU
2	*105-106	3	Business Communications		F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	*801-197	3	Technical Reporting	Prereq: 801-136	
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F/S/SU
3	801-198	3	Speech <sup>2</sup>		F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	801-196	3	Oral/Interpersonal Communication		
3	*103-143	3	Computers for Professionals <sup>2</sup>		F/S/SU
4	*104-105	3	Promotion Principles		F/S/SU
4	*102-121	3	Credit Management	Prereq: 804-135; 801-136	F/S/SU
4	*196-190	3	Leadership Development <sup>1</sup>		F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	*809-166	3	Ethics Theory & Applications, Intro	Prereq: 838-105 OR 851-757	
4	*196-191	3	Supervision		F/S/SU
4	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
5	*102-186	3	Business Management Internship	Prereq: Instructor Consent	F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	*806-112	3	Principles of Sustainability <sup>1</sup>	Prereq: 838-105	
5	*102-196	4	Business Decision Management	Prereq: 101-114; 104-101 OR 101-112; 103-103; 104-101	F/S/SU
5	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F/S/SU
6	809-195	3	Economics <sup>1,2</sup>		F/S/SU
	<b>OR</b>	<b>OR</b>	<b>OR</b>		
	809-143	3	Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	
6	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
<b>Minimum Program Total Credits Required: 62</b>					

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Business Management (10-102-3)

*Business Management* is designed to provide a broad background in management theory, human resource management and behavior, accounting, marketing, and business decision making. Students learn how to effectively plan, organize, direct, and evaluate business functions essential to efficient and productive business organizations. Graduates will have the business knowledge and skills to prepare them for a management trainee, assistant, manager, or team leader position in a wide cross-section of business, government, and not-for-profit sectors of our economy.

### Program Learning Outcomes

Graduates will be able to:

1. Plan the operations of a business.
2. Organize resources to achieve the goals of the organization.
3. Direct individuals and/or processes to meet organizational goals.
4. Control business processes.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

104-194 International Marketing	196-193 Human Resource Management
196-189 Team Building/Problem Solving	809-143 Microeconomics

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

Gateway Technical College's Business Management program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [www.acbsp.org].

Accreditation Council for Business Schools and Programs (ACBSP)  
 11520 West 119th Street  
 Overland Park, KS 66213  
 Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

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**Part-Time Pathway to Success**  
School of Business and Transportation

**Business Management (10-102-3)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-D = Elkhorn/days, K-E = Kenosha/evenings, R-D = Racine/days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	K-E	R-D	O
1	890-155	1	Gateway to Success (G2S)		F	F	F	F/S/SU
1	*102-137	3	Intro to Business <sup>2</sup>		F	F	F	F/S/SU
1	*104-101	3	Marketing Principles <sup>2</sup>		F	F	F	F/S/SU
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F	F	F	F/S/SU
2	*104-104	3	Selling Principles		S	S	S	F/S/SU
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S	S	S	F/F/SU
2	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S	S	S	F/S/SU
3	809-195 OR 809-143	3	Economics <sup>1,2</sup> OR Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	F/S/SU
3	801-198 OR 801-196	3	Speech <sup>2</sup> OR Oral/Interpersonal Communication		SU	SU	SU	F/S/SU
4	*101-114 OR *101-112	4 3	Accounting Principles <sup>2</sup> OR Accounting for Business		F	F	F	F/S/SU
4	*103-143	3	Computers for Professionals <sup>2</sup>		F	F	F	F/S/SU
4	*105-106 OR *801-197	3	Business Communications OR Technical Reporting	Prereq: 801-136 Prereq: 801-136	F	F	F	F/S/SU
5	*102-160	3	Business Law <sup>2</sup>		S	S	S	F/S/SU
5	*104-105	3	Promotion Principles		S	S	S	F/S/SU
5	*102-121	3	Credit Management	Prereq: 804-135; 801-136	S	S	S	F/S/SU
6	*102-186 OR *806-112	3	Business Management Internship OR Principles of Sustainability <sup>1</sup>	Prereq: Instructor Consent Prereq: 838-105 OR 851-757	SU	SU	SU	F/S/SU
6	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	F/S/SU
7	*196-190 OR *809-166	3	Leadership Development <sup>1,2</sup> OR Ethics Theory & Applications, Intro	Prereq: 838-105 OR 851-757	F	F	F	F/S/SU
7	*196-191	3	Supervision		F	F	F	F/S/SU
8	*102-196	4	Business Decision Management	Prereq: 101-114; 104-101 OR 101-112; 103-103; 104-101	S	S	S	F/S/SU
8	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S	S	S	F/S/SU

**Minimum Program Total Credits Required: 62**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
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### Business Management (10-102-3)

*Business Management* is designed to provide a broad background in management theory, human resource management and behavior, accounting, marketing, and business decision making. Students learn how to effectively plan, organize, direct, and evaluate business functions essential to efficient and productive business organizations. Graduates will have the business knowledge and skills to prepare them for a management trainee, assistant, manager, or team leader position in a wide cross-section of business, government, and not-for-profit sectors of our economy.

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### Essential Career Competencies

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- Cultural Competence
- Critical Thinking and Problem Solving
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- Technology Competence

### Admission Requirements

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### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

104-194 International Marketing	196-193 Human Resource Management
196-189 Team Building/Problem Solving	809-143 Microeconomics

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Civil Engineering Technology-Highway Technology (10-607-4)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-E = iMET Center/evenings, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-E	E-E
1	890-155	1	📍 Gateway to Success (G2S)		F+	F
1	*607-104	3	🎓 Building Material & Construction Method <sup>3</sup>		F	F
1	*607-141	2	Construction Basics <sup>3</sup>		F	F
1	*607-170	2	AutoCAD for Construction Science <sup>3,5</sup>		F	F
1	*607-191	1	Hydrology and Erosion Control		F	F
1	804-135	3	Quantitative Reasoning <sup>1,5</sup>	Prereq: 834-109	F+	F
	OR 804-115	5	College Technical Math <sup>1,5</sup>	Prereq: 834-110		
2	*607-102	2	Conflict Resolution in CET <sup>3,5</sup>		S	S
2	*607-128	3	Construction Estimating <sup>3</sup>	Coreq: 804-115 OR 804-135; 801-136	S	S
2	*607-132	3	Structural Mechanics <sup>3</sup>	Prereq: 804-115 OR 804-135	S	S
2	*607-175	3	🎓 Material Testing	Prereq: 607-104; 607-141	S	S
2	801-136	3	English Composition <sup>11,5</sup>	Prereq: 831-103 OR 851-757	S+	S
3	*607-176	1	Drone and Lidar Surveying		SU	SU
3	*607-169	2	🎓 Surveying Basics <sup>3</sup>		SU	SU
3	*607-187	2	3D CAD: Digital Terrain Modeling <sup>3</sup>		SU	SU
3	*614-150	2	3D CAD: Building Information Modeling <sup>3</sup>		SU	SU
3	809-198	3	Psychology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	SU*	SU
4	*607-127	3	Civil Engineering and Survey Drafting <sup>3</sup>	Prereq: 607-187	F	F
4	*607-136	2	Construction Project Management <sup>3</sup>		F	F
4	*607-173	3	Surveying Fundamentals <sup>3</sup>	Prereq: 607-169; 607-187; 804-115 OR 804-135	F	F
4	*607-177	2	Concrete Repair	Prereq: 607-139 OR 607-175	F	F
4	*607-178	2	Boundary Location and Research	Prereq: 607-169	F	F
4	801-197	3	Technical Reporting	Prereq: 801-136	F+	F
5	*607-117	2	Geographical Information Systems I <sup>3</sup>		S	S
5	*607-154	2	Sewer and Water Systems <sup>3</sup>	Prereq: 607-104; 804-115 OR 804-135; 607-191	S	S
5	*607-161	2	Legal Aspects of Land Surveying	Prereq: 607-169	S	S
5	*607-166	1	Capstone: CET-Highway Technology <sup>3</sup>	Prereq: Instructor Consent; Coreq: 607-150 OR 607-179; 607-154	S	S
5	*607-179	3	Route/Highway Design and Surveying	Prereq: 607-173; 607-127	S	S
5	*614-138	1	3D Modeling and Virtualization <sup>3</sup>	Prereq: 614-150; 607-187	S	S
5	809-195	3	Economics <sup>5</sup>	Prereq: 838-105 OR 851-757	S+	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Civil Engineering Technology – Highway Technology (10-607-4)**

Civil Engineering is the profession to solve physical problems related to our civilization in order to help make the lives of everyone better. The program is part of Gateway's Construction Sciences Group (CSG) of programs (see Note 4). This program focuses on a wide variety of aspects beginning with surveying, transitioning into design, and resulting in construction of public works projects. The program is designed as a fusion of education and hands-on application. Embedded in the program is the WTCS MATERIAL TESTING INSPECTOR CERTIFICATE, the educational requirements for becoming a LAND SURVEYOR, and CONSTRUCTION MANAGEMENT courses.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Utilize graphic techniques to produce engineering drawings.
2. Conduct standardized field and laboratory testing on civil engineering materials.
3. Utilize modern surveying methods for land measurements and/or construction layout.
4. Estimate material quantities and costs for civil engineering projects.
5. Utilize geometric elements to develop corridors.
6. Design storm systems to meet given design requirements.
7. Determine forces and stresses in elementary structural systems.
8. Employ productivity software to solve technical problems.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. This is a very intense and challenging program. Poor existing skills, especially poor math skills, can always be improved. As long as you have the heart and desire to succeed, the instructors will work with you.
3. Classes offered at Elkhorn Campus via NODAL delivery. Please see an advisor for details.
4. The programs in the Construction Science Group include: Civil Engineering Tech: Highway Technology, Architectural-Structural Engineering Technician and Construction Management Technician.
5. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
6. Students wishing to transfer onto a four-year degree and want to pursue Calculus courses at Gateway should see an advisor for transfer details regarding math class options instead of taking 804-135.
7. Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2<sup>nd</sup> semester.
8. Field trips to local area job sites may be required as part of the class requirements.

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Civil Engineering Technology-Highway Technology (10-607-4)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-E = iMET Center/evenings, E-E = Elkhorn Campus/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-E	E-E
1	890-155	1	Gateway to Success (G2S)		F*	F
1	*607-104	3	Building Material & Construction Method <sup>3</sup>		F	F
1	*607-141	2	Construction Basics <sup>3</sup>		F	F
1	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	F*	F
	OR 804-115	5	College Technical Math <sup>1,6</sup>	Prereq: 834-110		
2	*607-102	2	Conflict Resolution in CET <sup>3,6</sup>		S	S
2	*607-132	3	Structural Mechanics <sup>3</sup>	Prereq: 804-115 OR 804-135	S	S
2	*607-175	3	Material Testing	Prereq: 607-104; 607-141	S	S
2	801-136	3	English Composition <sup>1,6</sup>	Prereq: 831-103 OR 851-757	S*	S
3	*607-169	2	Surveying Basics <sup>3</sup>		SU	SU
3	*607-176	1	Drone and Lidar Surveying		SU	SU
3	*607-187	2	3D CAD: Digital Terrain Modeling <sup>3</sup>		SU	SU
3	801-197	3	Technical Reporting	Prereq: 801-136	SU*	SU
4	*607-136	2	Construction Project Management <sup>3</sup>		F	F
4	*607-173	3	Surveying Fundamentals <sup>3</sup>	Prereq: 607-169; 607-187; 804-115 OR 804-135	F	F
4	*607-177	2	Concrete Repair	Prereq: 607-139 OR 607-175	F	F
4	*607-178	2	Boundary Location and Research	Prereq: 607-169	F	F
5	*607-117	2	Geographical Information Systems I <sup>3</sup>		S	S
5	*607-161	2	Legal Aspects of Land Surveying	Prereq: 607-169	S	S
5	*607-128	3	Construction Estimating <sup>3</sup>	Coreq: 804-115 OR 804-135; 801-136	S	S
6	*614-150	2	3D CAD: Building Information Modeling <sup>3</sup>		SU	SU
6	809-195	3	Economics	Prereq: 838-105 OR 851-757	SU*	SU
6	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU*	SU
7	*607-127	3	Civil Engineering and Survey Drafting <sup>3</sup>	Prereq: 607-187	F	F
7	*607-170	2	AutoCAD for Construction Science <sup>3,6</sup>		F	F
7	*607-191	1	Hydrology and Erosion Control		F	F
8	*607-179	3	Route/Highway Design and Surveying	Prereq: 607-173; 607-127	S	S
8	*607-154	2	Sewer and Water Systems <sup>3</sup>	Prereq: 607-104; 804-115 OR 804-135; 607-191	S	S
8	*607-166	1	Capstone: CET-Highway Technology <sup>3</sup>	Prereq: Instructor Consent; Coreq: 607-150 OR 607-179; 607-154	S	S
8	*614-138	1	3D Modeling and Virtualization <sup>3</sup>	Prereq: 614-150; 607-187	S	S

**Minimum Program Total Credits Required: 65**

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**





**Full-Time Pathway to Success**  
School of Protective and Human Services

## Criminal Justice Studies (10-504-5)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, R-D = Racine/days, O = Online F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	R-D	O
1	890-155	1	📍 Gateway to Success (G2S)		S	F	F
1	*504-900	3	🎓 Intro to Criminal Justice		S	F	F
1	*504-902	3	🎓 Criminal Law		S	F	F
1	*504-174	3	Intro to Security		S	F	F
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S	F	F
1	103-143	3	Computers for Professionals <sup>3</sup>		S	F	F
2	*504-172	3	Introduction to Corrections		F	S	S
2	*504-903	3	🎓 Professional Communications		F	S	S
2	*504-905	3	Report Writing		F	S	S
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F	S	S
2	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F	S	S
3	*504-148	3	Rules of Evidence	Prereq: 801-136; 804-135	S	SU	SU
3	*504-168	3	Criminal Justice Administration		S	SU	SU
3	*504-177	3	Introduction to Criminology		S	SU	SU
3	*504-907	3	Community Policing Strategies		S	SU	SU
3	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S	SU	SU
4	*504-169	3	Criminal Justice Internship	Prereq: 504-900; 504-903; 504-905	F	F	F
4	*504-178	3	Trends in Criminal Justice		F	F	F
4	*504-901	3	Constitutional Law	Prereq: 504-902; Coreq: 504-148	F	F	F
4	*504-906	3	Criminal Investigation Theory		F	F	F
4	801-196	3	Oral/Interpersonal Communications		F	F	F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Criminal Justice Studies (10-504-5)**

*Criminal Justice Studies* is a two-year associate degree program that prepares students for positions in a variety of law enforcement careers at the state, local, and federal levels, as well as in the field of private security. Students study the law enforcement field plus physical and behavioral sciences to meet the demands of the police profession, including criminal investigation, traffic law, patrol procedures, and scientific crime laboratory.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Examine the components of interrelationships in the criminal justice system.
2. Analyze situational responses.
3. Apply communication skills as a criminal justice professional.
4. Conduct investigations.
5. Adhere to professional code of ethics for a criminal justice practitioner.
6. Maintain personal wellness.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### **Graduation Requirements**

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Students wishing to demonstrate proficiency in Spanish are encouraged to enroll in 90-802-4 Spanish Proficiency for First Responders (internal certificate). See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@qtc.edu](mailto:cfpl@qtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Criminal Justice Studies (10-504-5)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	∅ Gateway to Success (G2S)		F
1	*504-900	3	🎓 Intro to Criminal Justice		F
1	*504-902	3	🎓 Criminal Law		F
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F
2	*504-174	3	Intro to Security		S
2	*504-903	3	🎓 Professional Communications		S
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S
3	*504-172	3	Introduction to Corrections		SU
3	*504-905	3	Report Writing		SU
3	103-143	3	Computers for Professionals <sup>3</sup>		SU
4	*504-168	3	Criminal Justice Administration		F
4	*504-907	3	Community Policing Strategies		F
4	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F
5	*504-148	3	Rules of Evidence	Prereq: 801-136; 804-135	S
5	*504-177	3	Introduction to Criminology		S
5	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S
6	*504-178	3	Trends in Criminal Justice		SU
6	*504-901	3	Constitutional Law	Prereq: 504-902; Coreq: 504-148	SU
6	801-196	3	Oral/Interpersonal Communications		SU
7	*504-169	3	Criminal Justice Internship	Prereq: 504-900; 504-903; 504-905	F
7	*504-906	3	Criminal Investigation Theory		F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Criminal Justice Studies (10-504-5)**

*Criminal Justice Studies* is a two-year associate degree program that prepares students for positions in a variety of law enforcement careers at the state, local, and federal levels, as well as in the field of private security. Students study the law enforcement field plus physical and behavioral sciences to meet the demands of the police profession, including criminal investigation, traffic law, patrol procedures, and scientific crime laboratory.

### **Program Learning Outcomes**

Graduates will be able to:

1. Examine the components of interrelationships in the criminal justice system.
2. Analyze situational responses.
3. Apply communication skills as a criminal justice professional.
4. Conduct investigations.
5. Adhere to professional code of ethics for a criminal justice practitioner.
6. Maintain personal wellness.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### **Graduation Requirements**

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Students wishing to demonstrate proficiency in Spanish are encouraged to enroll in 90-802-4 Spanish Proficiency for First Responders (internal certificate). See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Culinary Arts (10-316-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine/days, E-D = Elkhorn/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*316-150	4	🎓 Culinary Basics 1 <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-151	4	Basic Baking <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-170	1	🎓 Sanitation and Hygiene <sup>3,4</sup>		F	F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F	F
2	*316-152	4	Culinary Basics 2 <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	*316-153	3	Garde Manger/Cold Kitchen <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	*316-154	3	Advanced Baking <sup>2,4</sup>	Prereq: 316-170; 316-151 OR 316-140	S	S
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S	S
3	*316-155	2	Culinary Internship <sup>4</sup>	Prereq: 316-152 OR 316-132; 801-136; 804-135	SU	SU
3	801-196	3	Oral/Interpersonal Communications		SU	SU
3	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU	SU
4	*316-109	3	Short Order Deli <sup>2,4</sup>	Prereq: 316-152 OR 316-131	F	F
4	*316-133	3	Menu Planning, Purchasing, Cost Control <sup>4</sup>		F	F
4	*316-156	4	Culinary Basics 3 <sup>2,4</sup>	Prereq: 316-152 OR 316-131	F	F
4	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F	F
5	*316-105	4	International Buffets <sup>2,4</sup>	Prereq: 316-156 OR 316-132	S	S
5	*316-125	4	Fine Dining <sup>2,4</sup>	Prereq: 316-156 OR 316-132; 316-109; 316-153 OR 316-134; 316-154; 804-135; 801-136	S	S
5	*316-130	2	Nutrition <sup>2,4</sup>	Prereq: 316-170	S	S
5	*316-157	3	Food Service Operations <sup>4</sup>	Coreq: 316-125	S	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Culinary Arts (10-316-1)**

*Culinary Arts* places emphasis on food purchasing, specialty food preparation, dining room operation, and quantity food preparation sanitation. In addition to the business aspects of restaurant operations, this program includes extensive hands-on preparation of different foods. Students completing the program are certified in sanitation and qualified for employment as cafeteria managers, restaurant cooks, concession managers, and specialty cooks.

### **Program Learning Outcomes**

Graduates of the Culinary Arts Associate Degree Program should be able to:

1. Apply principles of safety and sanitation in food service operations.
2. Apply principles of nutrition.
3. Demonstrate culinary skills.
4. Manage food service operations.
5. Plan menus.
6. Analyze food service financial information.
7. Relate food service operations to sustainability.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

## **Graduation Requirements**

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A uniform and knife kit required for this program. Please contact your advisor for more information.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students must pass all 316 Culinary courses with a C or better to move on to the next course.

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**Part-Time Pathway to Success**  
School of Protective and Human Services

**Culinary Arts (10-316-1)**  
Associate of Applied Science  
**Effective 2024/2025**

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All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D = Racine/days, E-D = Elkhorn days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*316-150	4	🎓 Culinary Basics 1 <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-170	1	🎓 Sanitation and Hygiene <sup>3,4</sup>		F	F
2	*316-152	4	Culinary Basics 2 <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S	S
3	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	SU	SU
3	801-196	3	Oral/Interpersonal Communications		SU	SU
4	*316-151	4	Basic Baking <sup>2,4</sup>	Coreq: 316-170	F	F
4	*316-109	3	Short Order Deli <sup>2,4</sup>	Prereq: 316-152 OR 316-131	F	F
5	*316-130	2	Nutrition <sup>2,4</sup>	Prereq: 316-170	S	S
5	*316-153	3	Garde Manger/Cold Kitchen <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
5	*316-154	3	Advanced Baking <sup>2,4</sup>	Prereq: 316-170; 316-151 OR 316-140	S	S
6	*316-155	2	Culinary Internship <sup>4</sup>	Prereq: 316-152 OR 316-132; 801-136; 804-135	SU	SU
6	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU	SU
6	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU	SU
7	*316-133	3	Menu Planning, Purchasing, Cost Control <sup>4</sup>		F	F
7	*316-156	4	Culinary Basics 3 <sup>2,4</sup>	Prereq: 316-152 OR 316-131	F	F
8	*316-105	4	International Buffets <sup>2,4</sup>	Prereq: 316-156 OR 316-132	S	S
8	*316-125	4	Fine Dining <sup>2,4</sup>	Prereq: 316-156 OR 316-132; 316-109; 316-153 OR 316-134; 316-154; 804-135; 801-136	S	S
8	*316-157	3	Food Service Operations <sup>4</sup>	Coreq: 316-125	S	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Culinary Arts (10-316-1)

*Culinary Arts* places emphasis on food purchasing, specialty food preparation, dining room operation, and quantity food preparation sanitation. In addition to the business aspects of restaurant operations, this program includes extensive hands-on preparation of different foods. Students completing the program are certified in sanitation and qualified for employment as cafeteria managers, restaurant cooks, concession managers, and specialty cooks.

### Program Learning Outcomes

Graduates of the Culinary Arts Associate Degree Program should be able to:

1. Apply principles of safety and sanitation in food service operations.
2. Apply principles of nutrition.
3. Demonstrate culinary skills.
4. Manage food service operations.
5. Plan menus.
6. Analyze food service financial information.
7. Relate food service operations to sustainability.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 60 credits with an average of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A uniform is required for this program.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. A knife kit is required for this course. Please contact your advisor for more information.
5. Students must pass all 316 Culinary courses with a C or better to move on to the next course.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Diesel Equipment Technology (10-412-1)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*412-111	2	🎓 Diesel Maintenance Fundamentals		F
1	*412-116	3	Diesel Preventative Maintenance <sup>6</sup>	Prereq: 412-111	F
1	*412-106	4	Diesel Brake Systems <sup>6</sup>	Prereq: 412-111	F
1	*412-117	3	Diesel Suspension & Steering Systems <sup>1,6</sup>	Prereq: 412-111	F
2	*412-112	4	Diesel Drive Trains <sup>6</sup>	Coreq: 804-135	S
2	*412-107	4	🎓 Diesel Electricity 1 <sup>6</sup>	Prereq: 412-111	S
2	801-196	3	Oral/Interpersonal Communication		S+
2	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	S+
3	*412-114	3	Diesel Heating, Cooling & Air Cond. <sup>6</sup>	Prereq: 412-107; Coreq: 801-136	SU
3	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU
3	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	SU+
4	*412-109	5	Diesel Engine Service	Prereq: 412-110	F
4	*412-108	3	Diesel Electricity 2	Prereq: 412-107; 804-135	F
4	*412-110	3	Diesel Fuel Systems	Prereq: 412-116	F
4	809-198	3	Psychology, Intro to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	F+
5	*412-113	3	Diesel Fuel Systems – Advanced	Prereq: 412-110; 412-108	S
5	*412-105	4	Diesel Control Systems – Advanced	Prereq: 412-115; 412-117	S
5	*412-115	2	Diesel Hydraulic Systems	Prereq: 412-111; 804-135	S
5	809-196	3	Sociology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	S+
5	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S
<b>Minimum Program Total Credits Required: 65</b>					

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Diesel Equipment Technology (10-412-1)

*Diesel Equipment Technology* is a two-year repair and maintenance program designed to prepare an entry level diesel technician. Program instruction will include over the road, off road and stationary applications. Emphasis will be placed on operational fundamentals and repair of diesel engines, and diesel vehicle systems including brakes, heating, and cooling systems. Technical skills will be developed in diagnosing and repair of advanced engine and system controls.

### Program Learning Outcomes

Graduates will be able to:

1. Diagnose major systems in diesel and heavy equipment industry.
2. Repair major systems in diesel and heavy equipment industry.
3. Service major systems in diesel and heavy equipment industry.
4. Practice personal and professional work habits.
5. Document complaint, cause, and correction.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 65 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

443-101 Forklift Operation & Maintenance	461-120 Small Power Equipment
412-123 Diesel Equipment Tech. Internship	801-197 Technical Reporting
442-101 Welding Basics	809-195 Economics
442-102 Introduction to Welding	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Tablet computer required for this program. See an advisor for a fact sheet describing minimum requirements.
3. Work uniforms are required. See an advisor for details.
4. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
5. A state issued Commercial Driver License (CDL) is not required for the program but highly recommended. Gateway Technical College will offer CDL training starting May 2019.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Diesel Equipment Technology (10-412-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*412-111	2	🎓 Diesel Maintenance Fundamentals		F
1	*412-116	3	Diesel Preventative Maintenance <sup>6</sup>	Prereq: 412-111	F
1	*412-106	4	Diesel Brake Systems <sup>6</sup>	Prereq: 412-111	F
2	*412-117	3	Diesel Suspension & Steering Systems <sup>1,6</sup>	Prereq: 412-111	S
2	*412-112	4	Diesel Drive Trains <sup>6</sup>	Coreq: 804-135	S
2	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	S+
3	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	SU+
3	801-196	3	Oral/Interpersonal Communication		SU+
3	809-198	3	Psychology, Intro to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+
4	*412-107	4	🎓 Diesel Electricity 1 <sup>6</sup>	Prereq: 412-111	F
4	*412-114	3	Diesel Heating, Cooling & Air Cond. <sup>6</sup>	Prereq: 412-107; Coreq: 801-136	F
4	*412-110	3	Diesel Fuel Systems	Prereq: 412-116	F
5	*412-109	5	Diesel Engine Service	Prereq: 412-110	S
5	*412-108	3	Diesel Electricity 2	Prereq: 412-107; 804-135	S
5	*412-115	2	Diesel Hydraulic Systems	Prereq: 412-111; 804-135	S
6	*412-113	3	Diesel Fuel Systems – Advanced	Prereq: 412-110; 412-108	SU
6	*412-105	4	Diesel Control Systems – Advanced	Prereq: 412-115; 412-117	SU
6	809-196	3	Sociology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F

<b>Minimum Program Total Credits Required: 65</b>
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Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Diesel Equipment Technology (10-412-1)

*Diesel Equipment Technology* is a two-year repair and maintenance program designed to prepare an entry level diesel technician. Program instruction will include over the road, off road and stationary applications. Emphasis will be placed on operational fundamentals and repair of diesel engines, and diesel vehicle systems including brakes, heating, and cooling systems. Technical skills will be developed in diagnosing and repair of advanced engine and system controls.

### Program Learning Outcomes

Graduates will be able to:

1. Diagnose major systems in diesel and heavy equipment industry.
2. Repair major systems in diesel and heavy equipment industry.
3. Service major systems in diesel and heavy equipment industry.
4. Practice personal and professional work habits.
5. Document complaint, cause, and correction.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 65 credits with an average of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

443-101 Forklift Operation & Maintenance	461-120 Small Power Equipment
412-123 Diesel Equipment Tech. Internship	801-197 Technical Reporting
442-101 Welding Basics	809-195 Economics
442-102 Introduction to Welding	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Tablet computer required for this program. See an advisor for a fact sheet describing minimum requirements.
3. Work uniforms are required. See an advisor for details.
4. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
5. A state issued Commercial Driver License (CDL) is not required for the program but highly recommended. Gateway Technical College will offer CDL training starting May 2019.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**

## Early Childhood Education (10-307-1)

Associate of Applied Science





**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*


*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*


**O=Online, R-E = Racine/evenings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O	R-E
1	890-155	1	 Gateway to Success (G2S)		S	F
1	*307-148	3	ECE: Foundations of Early Childhood Education <sup>3,5</sup>		S	F
1	*307-167	3	ECE: Health, Safety & Nutrition <sup>3</sup>		S	F
1	*307-179	3	 ECE: Child Development <sup>3</sup>		S	F
1	*307-160	3	 ECE: Field Experience <sup>1,5</sup>	Coreq: 307-148; 307-167; 801-136	S+	F+
1	801-136	3	English Composition <sup>1,5</sup>	Prereq: 831-103 OR 851-757	S	F
2	*307-110	3	ECE: Soc S, Art, and Music		F	S
2	*307-188	3	 ECE: Guiding Children's Behavior		F	S
2	*307-108	3	ECE: Early Language & Literacy		F	S
2	*307-170	3	ECE: Field Experience <sup>2,5</sup>	Prereq: 307-160 Coreq: 307-179	F+	S+
2	804-135	3	Quantitative Reasoning <sup>1,5</sup>	Prereq: 834-109	F	S
3	*307-151	3	ECE: Infant & Toddler Development		S	F
3	*307-195	3	ECE: Family and Community Relationships		S	F
3	*307-112	3	ECE: STEM	Coreq: 307-148	S	F
3	*307-190	3	ECE: Field Experience <sup>3,5</sup>	Prereq: 307-170; 801-136; 804-135; Coreq: 307-151	S+	F+
3	809-198	3	Psychology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	S	F
4	*307-187	3	ECE: Children with Differing Abilities		F	S
4	*307-210	3	ECE: Field Experience <sup>4</sup>	Prereq: 307-108; 307-110; 307-112; 307-190	F+	S+
4	801-196	3	Oral/Interpersonal Communication		F	S
4	809-196	3	Sociology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	F	S
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students will complete off site -daytime student teaching requirements in an early care and education program. Please see an advisor for details.



## Early Childhood Education (10-307-1)

*Early Childhood Education* prepares students to work as teacher-caregivers in early childhood settings. It combines hands-on fieldwork in area centers with related academic work at the college. Graduates become responsible for the care and education of children in the birth-to-eight-years age range. They create and maintain safe and healthy play environments, guide behavior, plan and implement learning activities, and work cooperatively with staff and parents.

### Program Learning Outcomes

Graduates will be able to:

1. Apply child development theory to practice.
2. Cultivate relationships with children, family, and the community.
3. Assess child growth and development.
4. Use best practices in teaching and learning.
5. Demonstrate professionalism.
6. Integrate health, safety, and nutrition practices.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete and pay for a Criminal Background Check through the Wisconsin Department of Children and Families and submit an official letter of eligibility. Applicants of this program are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester. For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Background checks for the ECE program are valid for five years.
3. Students must submit all health and immunization forms prior to the first day of attending all first-semester courses.
4. Complete the State of Wisconsin Background Check Request. Once complete print the document to physically sign it and email it to [admissionsgroup@gtc.edu](mailto:admissionsgroup@gtc.edu) with Early Childhood Education BCR in the subject line. Directions for ordering your Background Check will be sent to the mailing address you provide on your Background Check Request. Please email your Preliminary or Final Background Check-Eligibility Letter to [admissionsgroup@gtc.edu](mailto:admissionsgroup@gtc.edu) with Early Childhood Education Background Check in the subject line.
5. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
6. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.





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## Early Childhood Education (10-307-1)

Associate of Applied Science  
**Effective 2024/2025**


*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*


**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	 Gateway to Success (G2S)		F/S
1	*307-148	3	ECE: Foundations of Early Childhood Education <sup>3,6</sup>		F/S
1	*307-167	3	ECE: Health, Safety & Nutrition <sup>3</sup>		F/S
1	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	F/S
2	*307-110	3	ECE: Soc S, Art, and Music		S/SU
2	*307-188	3	 ECE: Guiding Children's Behavior		S/SU
2	*307-160	3	 ECE: Field Experience 1 <sup>3,6</sup>	Coreq: 307-148; 307-167; 801-136	S+/SU
3	*307-179	3	 ECE: Child Development <sup>3</sup>		SU/F
3	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	SU/F
4	*307-170	3	ECE: Field Experience 2 <sup>6</sup>	Prereq: 307-160 Coreq: 307-179	F+/S
4	*307-151	3	ECE: Infant & Toddler Development		F/S
4	*307-195	3	ECE: Family and Community Relationships		F/S
5	*307-190	3	ECE: Field Experience 3 <sup>6</sup>	Prereq: 307-170; 801-136; 804-135; Coreq: 307-151	S+/SU
5	*307-108	3	ECE: Early Language & Literacy		S/SU
5	801-196	3	Oral/Interpersonal Communication		S/SU
6	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU/F
6	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU/F
7	*307-112	3	ECE: STEM	Coreq: 307-148	F/S
7	809-196	3	Sociology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	F/S
8	*307-187	3	ECE: Children with Differing Abilities		S/SU
8	*307-210	3	ECE: Field Experience 4	Prereq: 307-108; 307-110; 307-112; 307-190	S+/SU

**Minimum Program Total Credits Required: 61**

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 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(\*) indicates students will complete off site -daytime student teaching requirements in an early care and education program. Please see an advisor.

## Early Childhood Education (10-307-1)

*Early Childhood Education* prepares students to work as teacher-caregivers in early childhood settings. It combines hands-on fieldwork in area centers with related academic work at the college. Graduates become responsible for the care and education of children in the birth-to-eight-years age range. They create and maintain safe and healthy play environments, guide behavior, plan and implement learning activities, and work cooperatively with staff and parents.

### Program Learning Outcomes

Graduates will be able to:

1. Apply child development theory to practice.
2. Cultivate relationships with children, family, and the community.
3. Assess child growth and development.
4. Use best practices in teaching and learning.
5. Demonstrate professionalism.
6. Integrate health, safety, and nutrition practices.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete and pay for a Criminal Background Check through the Wisconsin Department of Children and Families and submit an official letter of eligibility. Applicants of this program are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### Graduation Requirements

- Minimum 61 credits with an average of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Background checks for the ECE program are valid for five years.
3. Students must submit all health and immunization forms prior to the first day of attending all first-semester courses.
4. Complete the State of Wisconsin Background Check Request. Once complete print the document to physically sign it and email it to [admissionsgroup@gtc.edu](mailto:admissionsgroup@gtc.edu) with Early Childhood Education BCR in the subject line. Directions for ordering your Background Check will be sent to the mailing address you provide on your Background Check Request. Please email your Preliminary or Final Background Check-Eligibility Letter to [admissionsgroup@gtc.edu](mailto:admissionsgroup@gtc.edu) with Early Childhood Education Background Check in the subject line.
5. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electrical Engineering Technology (10-662-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*605-113	3	🎓 DC/AC I <sup>3</sup>		F
1	*605-130	4	Digital Electronics <sup>3</sup>		F
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F+
1	804-115	5	College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	F+
2	*605-114	3	DC/AC II <sup>3</sup>	Prereq: 605-113; Coreq: 804-115	S
2	*605-120	4	Electronic Devices I <sup>3</sup>	Prereq: 605-113	S
2	801-197	3	Technical Reporting	Prereq: 801-136	S+
2	804-197	5	College Algebra & Trig w Apps <sup>3</sup>	Prereq: 804-115 OR 804-114	S+
3	*605-121	4	Electronic Devices II	Prereq: 605-120	SU
3	*804-198	4	Calculus 1 <sup>3</sup>	Prereq: 804-197	SU+
3	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+
4	*605-133	3	Industrial Data Communications	Prereq: 605-113 OR 605-107	F
4	*605-190	4	Microprocessors	Coreq: 605-114; 605-121; 801-197	F
4	*662-105	3	Advanced Circuits	Prereq: 605-114; 804-197	F
4	*804-181	4	Calculus 2 <sup>3</sup>	Prereq: 804-198	F+
5	*605-150	3	Industrial Electronics	Prereq: 605-114; 605-120	S
5	*662-106	3	Advanced Electronics	Prereq: 605-120	S
5	*806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	S+
5	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S+

**Minimum Program Total Credits Required: 69**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Electrical Engineering Technology (10-662-1)

*Electrical Engineering Technology* focuses on the installation, maintenance, modification, diagnosis, and troubleshooting of a wide variety of electronic equipment. In addition to comprehensive training in electronic theory, lab experience is an integral part of the program. The study areas include AC/DC principles, transistor operation, digital circuits, microprocessors, optoelectronics, communications, and industrial electronics.

### Program Learning Outcomes

Graduates will be able to:

1. Apply electronic theory to practice.
2. Operate test equipment.
3. Build electronic circuits and systems.
4. Evaluate the operation of electronic circuits or systems.
5. Communicate technical information.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 69 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electrical Engineering Technology (10-662-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, I-E = iMET Center/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	I-E
1	890-155	1	📍 Gateway to Success (G2S)		F+	F+
1	*605-113	3	🎓 DC/AC I <sup>3</sup>		F	F
1	804-115	5	College Technical Math 11, <sup>3</sup>	Prereq: 834-110	F+	F+
2	*605-114	3	DC/AC II <sup>3</sup>	Prereq: 605-113; Coreq: 804-115	S	S
2	801-136	3	English Composition 11, <sup>3</sup>	Prereq: 831-103 OR 851-757	S+	S+
2	804-197	5	College Algebra & Trig w Apps <sup>3</sup>	Prereq: 804-115 or 804-114	S+	S+
3	801-197	3	Technical Reporting	Prereq: 801-136	SU+	SU+
3	*804-198	4	Calculus 1 <sup>3</sup>	Prereq: 804-197	SU+	SU+
4	*605-130	4	Digital Electronics <sup>3</sup>		F	F
4	*605-133	3	Industrial Data Communications	Prereq: 605-113 OR 605-107	F	F
5	*605-120	4	Electronic Devices I <sup>3</sup>	Prereq: 605-113	S	S
5	*806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	S+	S+
5	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S+	S+
6	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+	SU+
6	*605-121	4	Electronic Devices II	Prereq: 605-120	SU	SU
7	*605-190	4	Microprocessors	Coreq: 605-114; 605-121; 801-197	F	F
7	*662-105	3	Advanced Circuits	Prereq: 605-114; 804-197	F	F
7	*804-181	4	Calculus 2 <sup>3</sup>	Prereq: 804-198	F+	F+
8	*605-150	3	Industrial Electronics	Prereq: 605-114; 605-120	S	S
8	*662-106	3	Advanced Electronics	Prereq: 605-120	S	S

**Minimum Program Total Credits Required: 69**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Electrical Engineering Technology (10-662-1)

*Electrical Engineering Technology* focuses on the installation, maintenance, modification, diagnosis, and troubleshooting of a wide variety of electronic equipment. In addition to comprehensive training in electronic theory, lab experience is an integral part of the program. The study areas include AC/DC principles, transistor operation, digital circuits, microprocessors, optoelectronics, communications, and industrial electronics.

### Program Learning Outcomes

Graduates will be able to:

1. Apply electronic theory to practice.
2. Operate test equipment.
3. Build electronic circuits and systems.
4. Evaluate the operation of electronic circuits or systems.
5. Communicate technical information.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 69 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electronics (10-605-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*605-113	3	DC/AC I <sup>3</sup>		F
1	*605-130	4	Digital Electronics <sup>3</sup>		F
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F+
1	804-115	5	College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	F+
2	*605-114	3	DC/AC II <sup>3</sup>	Prereq: 605-113; Coreq: 804-115	S
2	*605-120	4	Electronic Devices I <sup>3</sup>	Prereq: 605-113	S
2	801-197	3	Technical Reporting	Prereq: 801-136	S+
2	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S+
3	*605-121	4	Electronic Devices II	Prereq: 605-120	SU
3	804-197	5	College Algebra & Trig w Apps <sup>3</sup>	Prereq: 804-115	SU+
4	*605-190	4	Microprocessors	Coreq: 605-114; 605-121; 801-197	F
4	*605-133	3	Industrial Data Communications	Prereq: 605-113 OR 605-107	F
4	*605-138	3	Circuit Construction and Repair		F
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
5	*806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	S+
5	*605-150	3	Industrial Electronics	Prereq: 605-114; 605-120	S
5	*605-136	3	PLC System Design	Prereq: 605-130	S
5	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S+

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Electronics (10-605-1)

*Electronics* focuses on the installation, maintenance, modification, diagnosis, and troubleshooting of a wide variety of electronic equipment. In addition to comprehensive training in electronic theory, lab experience is an integral part of the program. The study areas include AC/DC principles, transistor operation, digital circuits, microprocessors, optoelectronics, communications, and industrial electronics. The operation and use of various test and diagnostic equipment is included throughout the curriculum. The program prepares the students for a broad range of entry-level electronic technician positions.

### Program Learning Outcomes

Graduates will be able to:

1. Apply electronic theory to practice.
2. Operate test equipment.
3. Build electronic circuits and systems.
4. Evaluate the operation of electronic circuits or systems.
5. Communicate technical information.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 64 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

662-105 Advanced Circuits	662-106 Advanced Electronics
809-196 Sociology, Introduction to	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electronics (10-605-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, I-E = iMET Center/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	I-E
1	890-155	1	📍 Gateway to Success (G2S)		F+	F+
1	*605-113	3	🎓 DC/AC I <sup>3</sup>		F	F
1	804-115	5	College Technical Math 11, <sup>3</sup>	Prereq: 834-110	F+	F+
2	*605-114	3	DC/AC II <sup>3</sup>	Prereq: 605-113; Coreq: 804-115	S	S
2	801-136	3	English Composition 11, <sup>3</sup>	Prereq: 831-103 OR 851-757	S+	S+
2	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S	S
3	801-197	3	Technical Reporting	Prereq: 801-136	SU+	SU+
3	804-197	5	College Algebra & Trig w Apps <sup>3</sup>	Prereq: 804-115	SU+	SU+
4	*605-130	4	Digital Electronics <sup>3</sup>		F	F
4	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F+	F+
5	*605-120	4	Electronic Devices I <sup>3</sup>	Prereq: 605-113	S	S
5	*806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	S+	S+
6	*605-121	4	Electronic Devices II	Prereq: 605-120	SU	SU
6	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+	SU+
7	*605-190	4	Microprocessors	Coreq: 605-114; 605-121; 801-197	F	F
7	*605-133	3	Industrial Data Communications	Prereq: 605-113 OR 605-107	F	F
7	*605-138	3	Circuit Construction and Repair		F	F
8	*605-136	3	PLC System Design	Prereq: 605-130	S	S
8	*605-150	3	Industrial Electronics	Prereq: 605-114; 605-120	S	S

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

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## Electronics (10-605-1)

*Electronics* focuses on the installation, maintenance, modification, diagnosis, and troubleshooting of a wide variety of electronic equipment. In addition to comprehensive training in electronic theory, lab experience is an integral part of the program. The study areas include AC/DC principles, transistor operation, digital circuits, microprocessors, optoelectronics, communications, and industrial electronics. The operation and use of various test and diagnostic equipment is included throughout the curriculum. The program prepares the students for a broad range of entry-level electronic technician positions.

### Program Learning Outcomes

Graduates will be able to:

1. Apply electronic theory to practice.
2. Operate test equipment.
3. Build electronic circuits and systems.
4. Evaluate the operation of electronic circuits or systems.
5. Communicate technical information.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 64 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

662-105 Advanced Circuits	662-106 Advanced Electronics
809-196 Sociology, Introduction to	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Foundations of Teacher Education (10-522-2)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*522-103	3	EDU: Introduction to Educational Practices		F
1	*522-105	3	EDU: Behavior Management		F
1	*522-106	3	EDU: Child and Adolescent Development		F
1	804-135	3	Quantitative Reasoning <sup>1,5</sup>	Prereq: 834-109	F
2	*522-102	3	EDU: Techniques in Reading	Prereq: 838-105	S
2	*522-107	3	EDU: Overview of Special Education		S
2	*522-118	3	EDU: Techniques in Math	Prereq: 804-135	S
2	809-198	3	Psychology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	S
2	801-198	3	Speech <sup>5</sup>		S
3	801-136	3	English Composition 1 <sup>1,5</sup>	Prereq: 831-103 OR 851-757	SU
3	809-196	3	Sociology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	SU
4	*522-112	3	EDU: Equity in Education		F
4	*522-114	3	EDU: Techniques in Language Arts	Prereq: 522-102; 801-136	F
4	*522-124	3	EDU: Supporting Students with Disabilities		F
4	*522-129	3	EDU: Practicum 1 <sup>2,4</sup>	Prereq: Advisor Consent	F
4	809-172	3	Diversity Studies, Introduction to <sup>5</sup>	Prereq: 838-105 or 851-757	F
5	*522-104	3	EDU: Technology in Education		S
5	*522-119	3	EDU: Techniques in Social Studies		S
5	*522-120	3	EDU: Techniques in Science		S
5	*522-131	3	EDU: Practicum 2 <sup>4</sup>	Prereq: 522-129; 522-118; 522-114	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Foundations of Teacher Education (10-522-2)

*Foundations of Teacher Education* is an Associate of Applied Science degree, which prepares qualified individuals to work directly with students under the supervision of a licensed teacher. The duties include assisting children with math, reading, and writing assignments, as well as handling classroom management, clerical, and other tasks related to instruction. This program meets Title I requirements. Duties may also include monitoring student activities, correcting papers, tutoring, one-on-one activities, and small group facilitation. In addition, instructional assistants work on classroom displays, assist children with computers and media, and supervise various classroom and school events. Instructional assistants may be hired to provide instructional services to students from pre-k through high school; however, the focus of this program is on preparing grads to work primarily in elementary and middle school levels.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate instructional support strategies for content areas
2. Implement developmentally appropriate practices to foster learning
3. Adapt instruction to meet the diverse needs of all learners
4. Use proactive classroom management techniques
5. Perform professional responsibilities
6. Incorporate the reflective process to promote professional growth

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a background information form and pay a criminal background check fee. Applicants of this program are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

## Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. This course requires advisor consent, which will only be given when proper physical and immunization records are submitted. Students must submit all health and immunization forms prior to the first day of attending these courses.
3. Any course may be taken prior to entry in the program, assuming prerequisites and co-requisites have been satisfied (or waived with department approval).
4. Admittance into the Foundations of Teacher Education program is required before taking this course.
5. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Foundations of Teacher Education (10-522-2)

Associate of Applied Science  
**Effective 2024/2025**

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All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*522-103	3	EDU: Introduction to Educational Practices		F
1	*522-106	3	EDU: Child and Adolescent Development		F
1	804-135	3	Quantitative Reasoning <sup>1,5</sup>	Prereq: 834-109	F
2	*522-102	3	EDU: Techniques in Reading	Prereq: 838-105	S
2	*522-119	3	EDU: Techniques in Social Studies		S
2	801-136	3	English Composition 1 <sup>1,5</sup>	Prereq: 831-103 OR 851-757	S
3	*522-105	3	EDU: Behavior Management		SU
3	809-196	3	Sociology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	SU
3	801-198	3	Speech <sup>5</sup>		SU
4	*522-114	3	EDU: Techniques in Language Arts	Prereq: 522-102; 801-136	F
4	*522-129	3	EDU: Practicum 1 <sup>2,3</sup>	Prereq: Advisor Consent	F
4	809-198	3	Psychology, Introduction to <sup>1,5</sup>	Prereq: 838-105 OR 851-757	F
5	*522-104	3	EDU: Technology in Education		S
5	*522-118	3	EDU: Techniques in Math	Prereq: 804-135	S
5	*522-120	3	EDU: Techniques in Science		S
6	*522-107	3	EDU: Overview of Special Education		SU
6	*522-124	3	EDU: Supporting Students with Disabilities		SU
6	809-172	3	Diversity Studies, Introduction to	Prereq: 838-105 or 851-757	SU
7	*522-112	3	EDU: Equity in Education		F
7	*522-131	3	EDU: Practicum 2 <sup>3</sup>	Prereq: 522-129; 522-118; 522-114	F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

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*Foundations of Teacher Education* is an Associate of Applied Science degree, which prepares qualified individuals to work directly with students under the supervision of a licensed teacher. The duties include assisting children with math, reading, and writing assignments, as well as handling classroom management, clerical, and other tasks related to instruction. This program meets Title I requirements. Duties may also include monitoring student activities, correcting papers, tutoring, one-on-one activities, and small group facilitation. In addition, instructional assistants work on classroom displays, assist children with computers and media, and supervise various classroom and school events. Instructional assistants may be hired to provide instructional services to students from pre-k through high school; however, the focus of this program is on preparing grads to work primarily in elementary and middle school levels.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate instructional support strategies for content areas
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6. Incorporate the reflective process to promote professional growth

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4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

## Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. This course requires advisor consent, which will only be given when proper physical and immunization records are submitted. Students must submit all health and immunization forms prior to the first day of attending these courses.
2. Any course may be taken prior to entry in the program, assuming prerequisites and co-requisites have been satisfied (or waived with department approval).
3. Admittance into the Foundations of Teacher Education program is required before taking this course.
4. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
5. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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**Funeral Service (10-528-1)**  
**Shared Program with MATC**  
 Associate of Applied Science  
**Effective 2024/2025**

**Funeral Service (10-528-1)**

*This is a shared program with Milwaukee Area Technical College (MATC).*

This program prepares you for a career as a licensed funeral director and embalmer in a profession that demands compassion, dedication and creativity. Our rigorous curriculum trains students to become among the best funeral directors in the expanding death-care profession. Once accepted into the program, students are immersed in all facets of the funeral profession.

Students are provided a variety of unique learning opportunities through lectures, hands-on labs, field trips, seminars, guest speakers and internships. Facilities include classrooms, state-of-the-art embalming and restorative art labs, arrangement conference room, merchandise selection room and funeral chapel. Students who complete the program will earn an associate degree and be eligible to take the National Board Exam for funeral directors (required for licensure). Coursework will include embalming, arranger training, grief studies, business management, religious funeral practices, regulatory compliance and more.

**Program Requirements**

Consult the MATC website for program and admission requirements at <https://www.matc.edu/course-catalog/community-human-services/funeral-service.html>

**Graduation Requirements**

Consult the MATC website for graduation requirements at <http://www.matc.edu/>.

**Gateway Admission Requirements**

- To indicate your intent to complete this program, please submit the free program application with Gateway Technical College.
- Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing and math placement assessments.
- This program has a required admission petition to begin coursework at MATC. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information regarding eligibility and selection.
- MATC has additional admission requirements for their portion of this program. Please consult with MATC for details.

**Program Learning Outcomes**

Graduates will be able to:

- Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
- Identify standards of ethical conduct in funeral service practice.
- Interpret how federal, state, and local laws apply to funeral service in order to ensure compliance.
- Apply principles of public health and safety in the handling and preparation of human remains.
- Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
- Demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

- Describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains.
- Describe methods to address the grief-related needs of the bereaved.
- Explain management skills associated with operating a funeral establishment.
- Demonstrate verbal and written communication skills and research skills needed for funeral service practice.

**Gateway Course Requirements**

Students choosing to start the Funeral Service program at Gateway are able to complete up to 30 credits toward the degree at MATC. All courses will satisfy program requirements in the Funeral Service program under the shared agreement as long as minimum requirements have been met. Consult the MATC website for requirements at <https://www.matc.edu/course-catalog/community-human-services/funeral-service.html>

Term	Course Number	Course Title	Cr.	Requisites
1	801-136	English Composition 1 <sup>4</sup>	3	Prereq: 831-103 OR 851-757 <sup>2</sup>
1	801-196 OR 801-198	Oral/Interpersonal Comm. <sup>4</sup> OR Speech <sup>4</sup>	3	
1	806-177	Gen. Anatomy & Phys. <sup>5</sup>	4	
1	809-198	Psychology, Intro to <sup>4</sup>	3	Prereq: 838-105 OR 851-757 <sup>2</sup>
1	809-196	Sociology, Intro to <sup>4</sup>	3	Prereq: 838-105 OR 851-757 <sup>2</sup>
2	806-197	Microbiology <sup>5</sup>	4	Prereq: 806-105 OR 806-177 OR 806-196 OR 206-238
2	806-134	General Chemistry <sup>5</sup>	4	
2	101-112	Accounting for Business <sup>5</sup>	3	
2	102-160	Business Law <sup>5</sup>	3	

**Notes**

- Students will be admitted to the program and receive financial aid through MATC. To apply, visit <https://www.matc.edu/apply/index.html>
- A satisfactory placement test score (or successful remediation) is required prior to enrollment. See a Gateway advisor for details.
- Students completing the shared program will receive their degree from Milwaukee Area Technical College.
- Students must complete this course with a grade of "C" or better.
- Students must complete this course with a grade of "B-" or better.
- This program has a required admission petition. Students are selected based on completion of academic eligibility requirements. Visit <https://www.matc.edu/course-catalog/community-human-services/funeral-services-petition-process.html> for additional information.



## Graphic Design (10-201-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-D = Elkhorn/days, I-D = iMET/days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-D	O
1	890-155	1	📍 Gateway to Success (G2S)		F	F	S
1	*201-100	4	🎓 Design Concepts		F	F	S
1	*201-101	3	Comp. Illustration & Drawing Tech <sup>3</sup>		F	F	S
1	*201-102	3	Digital Photography, Intro to <sup>3</sup>		F	F	S
1	*201-103	3	Illustration Media Concepts <sup>3</sup>		F	F	S
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F	F	S
2	*201-104	3	Web Page Design For Graphic Designers	Prereq: 201-102 OR 204-107	S	S	SU
2	*201-105	3	Multimedia Survey		S	S	SU
2	*201-106	4	🎓 Design Publishing & Prepress	Prereq: 201-100 OR 204-100	S	S	SU
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S	S	SU
3	*201-107	3	Graphic Design Professional Practices <sup>1</sup>	Prereq: 201-106 OR 204-140; 801-136; 804-135	F	F	F
3	*201-108	3	Advanced Problems in Graphic Design	Prereq: 201-106 OR 204-140	F	F	F
3	*201-109	4	Advanced Design Concepts	Prereq: 201-106 OR 204-140	F	F	F
3	801-197	3	Technical Reporting	Prereq: 801-136	F	F	F
3	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F	F	F
4	*201-110	3	Applied Exit Strategies/Display Graphic	Coreq: 201-107 OR 204-109	S	S	S
4	*201-111	3	Advanced Illustration		S	S	S
4	*201-112	3	Advanced Digital Photography		S	S	S
4	801-198	3	Speech <sup>3</sup>		S	S	S
4	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S	S	S

<b>Minimum Program Total Credits Required: 61</b>
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Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Graphic Design (10-201-1)

*Graphic Design* educates students in the practice of design, illustration, and reproductive processes related to the print and audio visual media. Course work includes basic illustration, visual communication, and reproductive concepts with emphasis on development in computer graphic skills. The program includes certain aspects of commercial art and communication/computer graphics, with emphasis on skills training required for the increasingly technological focus of graphic design in today's workplace.

### Program Learning Outcomes

Graduates will be able to:

1. Apply principles of design to develop strategic marketing and communication products and services.
2. Demonstrate proficiency in the use of design software, tools, and technology.
3. Implement creative solutions from concept through completion using a formal process.
4. Apply effective legal and ethical business practices and project management skills.
5. Communicate artwork rationale in formal and informal settings.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. The Graphic Design program at Gateway Technical College is a laptop program. Every student enrolled in the program should acquire a laptop that meets recommended specifications to utilize inside and outside of the classroom. To best meet the demands of the industry, students will be subscribing to and working with the Adobe Creative Cloud. To ensure optimum hardware performance we recommend meeting the computer specifications as outlined on the Adobe Creative Cloud website: <http://helpx.adobe.com/creative-cloud/system-requirements.html>

### Accreditation Statement

Gateway Technical College's Graphic Design program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].  
Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

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## Graphic Design (10-201-1)

Associate of Applied Science  
Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
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Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, I-D = iMET/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*201-100	4	🎓 Design Concepts		F	F
1	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	F	F
2	*201-101	3	Comp. Illustration & Drawing Tech <sup>4</sup>		S	S
2	*201-102	3	Digital Photography, Intro to <sup>4</sup>		S	S
2	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	S	S
3	*201-106	4	🎓 Design Publishing & Prepress	Prereq: 201-100 OR 204-100	SU	SU
3	801-197	3	Technical Reporting	Prereq: 801-136	SU	SU
4	*201-103	3	Illustration Media Concepts <sup>4</sup>		F	F
4	*201-108	3	Advanced Problems in Graphic Design	Prereq: 201-106 OR 204-140	F	F
4	*201-109	4	Advanced Design Concepts	Prereq: 201-106 OR 204-140	F	F
5	*201-104	3	Web Page Design For Graphic Designers	Prereq: 201-102 OR 204-107	S	S
5	*201-105	3	Multimedia Survey		S	S
6	801-198	3	Speech <sup>4</sup>		SU	SU
6	809-198	3	Psychology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU	SU
7	*201-107	3	Graphic Design Professional Practices <sup>1</sup>	Prereq: 201-106 OR 204-140; 801-136; 804-135	F	F
7	809-196	3	Sociology, Introduction to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	F	F
8	*201-110	3	Applied Exit Strategies/Display Graphic	Coreq: 201-107 OR 204-109	S	S
8	*201-111	3	Advanced Illustration		S	S
8	*201-112	3	Advanced Digital Photography		S	S

**Minimum Program Total Credits Required: 61**

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## Graphic Design (10-201-1)

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- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with an average of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
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### Accreditation Statement

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Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

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## Greenhouse Operations (10-001-6)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*001-185	3	🎓 Intro to Horticulture		F
1	*001-143	3	Herbaceous Plants	Coreq: 001-185	F
1	*001-146	1	🎓 Sustainable Landscape		F
1	*001-147	1	🎓 Soils and Plant Nutrition		F
1	*001-148	1	Plant Pests and Beneficials		F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
2	*001-128	3	Horticulture Marketing		S
2	*001-129	1	Pesticide Applicator Certification		S
2	*001-142	3	Vegetable Science		S
2	*001-151	3	Greenhouse Crops	Coreq: 804-135; 801-136	S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
2	461-120	3	Small Power Equipment		S
3	*001-111	3	Horticulture Practicum	Prereq: 001-147; 001-151	SU
3	801-196	3	OR		SU
	801-198	3	OR		SU
			Speech <sup>2</sup>		
4	*001-104	3	Greenhouse Systems	Prereq: 001-151	F
4	*001-130	3	Landscape Plants Trees/Shrubs Deciduous	Prereq: 001-185	F
4	*001-144	3	Floral Design I/Commercial <sup>2</sup>		F
4	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
5	*001-149	3	Horticulture Events		S
5	*001-154	3	Alternative Growing Methods	Prereq: 001-104; 001-151	S
5	*001-180	1	Horticulture Portfolio	Prereq: 001-130; 001-143; 001-147; 001-151	S
5	*104-104	3	Selling Principles		S
5	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.



### **Greenhouse Operations (10-001-6)**

The Greenhouse Operations program trains students in greenhouse growing and operations, hydroponics, and retail garden center and floral shop management. Hands-on experience in a commercial greenhouse, ornamental gardens and an operating urban farm are part of the learning experience. Plant identification, care and culture are key elements of the program, as are technical and graphic skills, sustainable methods for plant care and creative approaches to problem solving and landscape design.

### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
2. Diagnose plant health.
3. Communicate as a horticulture professional.
4. Apply design principles.
5. Provide horticulture maintenance.
6. Apply the principles of plant science.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Greenhouse Operations (10-001-6)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	Gateway to Success (G2S)		F
1	*001-185	3	Intro to Horticulture		F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
2	*001-146	1	Sustainable Landscape		S
2	*001-147	1	Soils and Plant Nutrition		S
2	*001-148	1	Plant Pests and Beneficials		S
2	*001-151	3	Greenhouse Crops	Coreq: 804-135; 801-136	S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
3	*001-142	3	Vegetable Science		SU
3	*001-143	3	Herbaceous Plants	Coreq: 001-185	SU
4	*001-130	3	Landscape Plants Trees/Shrubs Deciduous	Prereq: 001-185	F
4	*001-144	3	Floral Design I/Commercial <sup>2</sup>		F
4	801-196	3	OR	OR	F
	801-198		Speech <sup>2</sup>		
5	*001-128	3	Horticulture Marketing		S
5	*001-129	1	Pesticide Applicator Certification		S
5	461-120	3	Small Power Equipment		S
6	*001-111	3	Horticulture Practicum	Prereq: 001-147; 001-151	SU
6	*001-149	3	Horticulture Events		SU
7	*001-104	3	Greenhouse Systems	Prereq: 001-151	F
7	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
7	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
8	*001-154	3	Alternative Growing Methods	Prereq: 001-104; 001-151	S
8	*001-180	1	Horticulture Portfolio	Prereq: 001-130; 001-143; 001-147; 001-151	S
8	*104-104	3	Selling Principles		S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Greenhouse Operations (10-001-6)**

The Greenhouse Operations program trains students in greenhouse growing and operations, hydroponics, and retail garden center and floral shop management. Hands-on experience in a commercial greenhouse, ornamental gardens and an operating urban farm are part of the learning experience. Plant identification, care and culture are key elements of the program, as are technical and graphic skills, sustainable methods for plant care and creative approaches to problem solving and landscape design.

### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
2. Diagnose plant health.
3. Communicate as a horticulture professional.
4. Apply design principles.
5. Provide horticulture maintenance.
6. Apply the principles of plant science.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@qtc.edu](mailto:cfpl@qtc.edu).

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**Human Resources (10-116-1)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Ⓞ Gateway to Success (G2S)		F/S/SU
1	*196-190	3	Leadership Development <sup>2</sup>		F/S/SU
1	*196-191	3	Supervision		F/S/SU
1	*196-137	3	Certified Service Specialist <sup>2</sup>		F/S/SU
	<b>OR</b>		<b>OR</b>		
	*196-136		Safety in the Workplace <sup>2</sup>		
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F/S/SU
2	*196-134	3	Legal Issues for Supervisors		F/S/SU
2	*196-193	3	🎓 Human Resources Management		F/S/SU
2	*196-169	3	Diversity and Change Management		F/S/SU
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F/S/SU
3	801-196	3	Oral/Interpersonal Communication		F/S/SU
	<b>OR</b>		<b>OR</b>		
	801-198		Speech		
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
3	*196-188	3	Project Management		F/S/SU
3	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
4	*196-133	3	Negotiations		F/S/SU
4	*196-189	3	Team Building and Problem Solving		F/S/SU
4	*116-101	3	Compensation & Benefits	Prereq: 196-134; 196-193; 804-135; 801-136	F/S/SU
4	*116-102	3	Training & Development	Prereq: 196-134; 196-193	F/S/SU
5	*116-103	3	Employee Relations & Engagement	Prereq: 196-134; 196-193	F/S/SU
5	*116-104	3	Recruitment and Selection	Prereq: 196-134; 196-193	F/S/SU
5	*101-112	3	Accounting for Business		F/S/SU
5	*116-105	3	Human Resources Capstone	Prereq: Instructor Consent	F/S/SU
	<b>OR</b>		<b>OR</b>		
	*116-106		Human Resources Internship		

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Human Resources (10-116-1)

*Human Resources* is an integral component in the strategic advancement of any organization. This program will allow you the opportunity to gain new skills in specialized areas including recruitment, hiring, training and development, employee records, compensation and benefits. Students will explore employment law, occupational safety and health, equal employment opportunity, wages, healthcare, family leave and retirement plans. You will be well equipped for this rewarding and important field.

### Program Learning Outcomes

Graduates will be able to:

1. Design an organizational workforce plan.
2. Develop training programs.
3. Analyze organizational total rewards programs.
4. Incorporate employment law into business practices.
5. Apply employees relations techniques.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**  
School of Business and Transportation

## Human Resources (10-116-1)

Associate of Applied Science  
**Effective 2024/2025**

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**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	ϕ Gateway to Success (G2S)		F/S/SU
1	*196-190	3	Leadership Development <sup>2</sup>		F/S/SU
1	*196-191	3	Supervision		F/S/SU
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F/S/SU
2	*196-137	3	Certified Service Specialist <sup>2</sup>		F/S/SU
	<b>OR</b>		<b>OR</b>		
2	*196-136	3	Safety in the Workplace <sup>2</sup>		F/S/SU
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F/S/SU
3	*196-134	3	Legal Issues for Supervisors		F/S/SU
3	*196-193	3	🎓 Human Resources Management		F/S/SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
4	*196-169	3	Diversity and Change Management		F/S/SU
4	*196-188	3	Project Management		
4	801-196	3	Oral/Interpersonal Communication		F/S/SU
	<b>OR</b>		<b>OR</b>		
4	801-198	3	Speech		
5	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F/S/SU
5	*196-133	3	Negotiations		F/S/SU
5	*196-189	3	Team Building and Problem Solving		F/S/SU
6	*116-101	3	Compensation & Benefits	Prereq: 196-134; 196-193; 804-135; 801-136	F/S/SU
6	*116-102	3	Training & Development	Prereq: 196-134; 196-193	F/S/SU
6	*101-112	3	Accounting for Business		F/S/SU
7	*116-103	3	Employee Relations & Engagement	Prereq: 196-134; 196-193	F/S/SU
7	*116-104	3	Recruitment and Selection	Prereq: 196-134; 196-193	F/S/SU
7	*116-105	3	Human Resources Capstone	Prereq: Instructor Consent	F/S/SU
	<b>OR</b>		<b>OR</b>		
7	*116-106	3	Human Resources Internship		

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

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## Human Resources (10-116-1)

*Human Resources* is an integral component in the strategic advancement of any organization. This program will allow you the opportunity to gain new skills in specialized areas including recruitment, hiring, training and development, employee records, compensation and benefits. Students will explore employment law, occupational safety and health, equal employment opportunity, wages, healthcare, family leave and retirement plans. You will be well equipped for this rewarding and important field.

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1. Design an organizational workforce plan.
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### Essential Career Competencies

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- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

## Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
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**Full-Time Pathway to Success**  
School of Protective and Human Services

## Human Services Associate (10-520-3)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D = Racine/days, K-D – Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	K-D
1	890-155	1	Gateway to Success (G2S)		F	S
1	103-143	3	Computers for Professionals <sup>2</sup>		F	S
1	*520-101	3	Human Services, Intro to		F	S
1	*520-105	3	Interviewing Principles & Documentation <sup>2</sup>		F	S
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F	S
1	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F	S
2	*520-110	3	Community Resources & Services		S	SU
2	*520-115	3	Counseling, Introduction to <sup>2</sup>	Prereq: 520-105	S	SU
2	*520-127	3	Professional Practices in Human Services <sup>2</sup>		S	SU
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S	SU
2	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S	SU
3	*520-124	3	Field Experience I / Human Services <sup>2</sup>	Prereq: 520-127; 801-136; 804-135; Coreq: 520-140	SU	F
3	*520-140	3	Group Counseling <sup>2</sup>	Prereq: 520-115	SU	F
3	*550-130	3	Alcohol/Drug Abuse Rehabilitation		SU	F
3	801-196	3	Oral/Interpersonal Communication		SU	F
3	*520-102	3	Crisis Intervention		SU	F
4	*520-121	3	Field Experience II / Human Services	Prereq: 520-140; 520-124	F	S
4	*XXX-XXX	3	Elective Course	Take 3 Human Service elective credits <u>only</u> from suggested electives listed on back.	F	S
4	*520-128	3	Child Welfare <sup>1</sup>		F	S
4	*520-151	3	Family Theory and Practice <sup>1</sup>		F	S
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F	S

**Minimum Program Total Credits Required: 61**

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Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Human Services Associate (10-520-3)

*Human Services Associate* is designed to prepare people for entry level positions in a variety of human service agencies and social service programs. The Human Services Associate program includes a unique combination of the study of aspects of human services, general education subjects, and 300 hours of actual field experience in a community human service agency under the supervision of a working professional. If taken full-time, this program may be completed in four semesters of study.

### Program Learning Outcomes

Graduates will be able to:

1. Model a commitment to cultural competence.
2. Uphold the Ethical Standards and Values for Human Service Professionals.
3. Demonstrate professionalism.
4. Utilize community resources.
5. Apply human services interventions and best practices.
6. Cultivate professional relationships.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

550-207 Psychopharmacology	520-150 Gerontology/Intro to
550-154 Family & Chemical Abuse	520-152 Aspects of Disabilities
550-156 Mental Health/Sub Abuse	809-159 Abnormal Psychology
520-161 Child and Adolescent Mental Health	809-188 Developmental Psychology

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**  
School of Protective and Human Services

## Human Services Associate (10-520-3)

Associate of Applied Science  
**Effective 2024/2025**

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All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-E = Elkhorn/evenings, K-E = Kenosha/evenings, R-E = Racine/evenings, K-D = Kenosha/days, R-D = Racine/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq- with)	E-E	K-E	R-E	K-D	R-D
1	890-155	1	📍 Gateway to Success (G2S)		SU	SU	SU	S	F
1	*520-101	3	Human Services, Intro to		SU	SU	SU	S	F
1	*520-105	3	🎓 Interviewing Principles & Documentation <sup>2</sup>		SU	SU	SU	S	F
1	103-143	3	Computers for Professionals <sup>2</sup>		SU	SU	SU	S	F
2	*520-110	3	Community Resources & Services		F	F	F	SU	S
2	*520-115	3	🎓 Counseling, Introduction to <sup>2</sup>	Prereq: 520-105	F	F	F	SU	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F	F	F	SU	S
3	*520-127	3	🎓 Professional Practices in Human Services <sup>2</sup>		S	S	S	F	SU
3	*520-140	3	Group Counseling <sup>2</sup>	Prereq: 520-115	S	S	S	F	SU
3	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S	S	S	F	SU
4	*550-130	3	Alcohol/Drug Abuse Rehabilitation		SU	SU	SU	S	F
4	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	S	F
4	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	S	F
5	*520-128	3	Child Welfare <sup>1</sup>		F	F	F	SU	S
5	*520-151	3	Family Theory and Practice <sup>1</sup>		F	F	F	SU	S
6	*520-102	3	Crisis Intervention		S	S	S	F	SU
6	*520-124	3	Field Experience I / Human Services <sup>2</sup>	Prereq: 520-127; 801-136; 804-135 Coreq: 520-140	S	S	S	F	SU
6	801-196	3	Oral/Interpersonal Communication		S	S	S	F	SU
7	*520-121	3	Field Experience II / Human Services	Prereq: 520-140; 520-124	SU	SU	SU	S	F
7	*XXX-XXX	3	Elective Course	Take 3 Human Service elective credits <u>only</u> from suggested electives listed on back.	SU	SU	SU	S	F
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU	SU	SU	S	F

**Minimum Program Total Credits Required: 61**

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### Human Services Associate (10-520-3)

*Human Services Associate* is designed to prepare people for entry level positions in a variety of human service agencies and social service programs. The Human Services Associate program includes a unique combination of the study of aspects of human services, general education subjects, and 300 hours of actual field experience in a community human service agency under the supervision of a working professional. If taken full-time, this program may be completed in four semesters of study.

### Program Learning Outcomes

Graduates will be able to:

1. Model a commitment to cultural competence.
2. Uphold the Ethical Standards and Values for Human Service Professionals.
3. Demonstrate professionalism.
4. Utilize community resources.
5. Apply human services interventions and best practices.
6. Cultivate professional relationships.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

550-207 Psychopharmacology	520-150 Gerontology/Intro to
550-154 Family & Chemical Abuse	520-152 Aspects of Disabilities
550-156 Mental Health/Sub Abuse	809-159 Abnormal Psychology
520-161 Child and Adolescent Mental Health	809-188 Developmental Psychology

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Individualized Technical Studies – (10-825-1)

Associate of Applied Science  
Effective 2024/2025

### Individualized Technical Studies (10-825-1)

*Individualized Technical Studies* is designed for individuals desiring to combine skills and knowledge from different academic disciplines. The degree is designed to meet specific educational needs of students whose career goals do not align with current academic programs. Career goals are identified with the input of the student, a Gateway advisor, and an occupational mentor. A portfolio is developed to define career goals, document appropriate learning experiences, and formulate a plan for degree completion. Courses from all departments within the college are available for utilization, with a minimum of 20 of these credits being focused in one specific discipline.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must provide a statement of need and summary of career goals, explaining in detail the need to pursue the Individualized Technical Studies program in lieu of an established program.
4. Students must provide proof of an occupational mentor who will provide industry-specific guidance throughout the program.
5. Students must submit an academic plan, designed in conjunction with an academic advisor and occupational mentor.

### Program Requirements

1. The ITS degree is intended for individuals who have a specific career objective in mind that cannot be met by existing college degree programs.
2. The student is required to work under the direction of an occupational mentor so that the student and mentor are in complete agreement as to the curriculum identified, and place value on its contribution to the student and potential employers. These requirements are in place to prevent students or colleges from designing a program around what they perceive to be a workforce need but which employers do not value, leaving the student with an unmarketable set of skills.
3. Critical to a successful experience and graduation from this program will be the input of an occupational mentor. This real-world professional knows about the requirements and skills needed to be successful in the program of study. The mentor, with the assistance of a Gateway advisor, helps the student decide the combination of technical and general studies courses necessary to meet the job requirements of potential employers.
4. Upon completion of admission requirements, the College's Individualized Technical Studies Committee will review program application materials and provide final approval of student acceptance into the Individualized Technical Studies program.

### Graduation Requirements

1. Minimum 60 credits with a cumulative GPA of 2.0 or above.
2. 40 credits Individualized Technical Studies courses (20 *must* be focused in one technical discipline)
3. 15 credits General Studies **required** from the following:
  - 6 credits Communications
  - 3 credits Social Science
  - 3 credits Behavioral Science
  - 3 credits Mathematics and/or Natural Science
4. 25% of the total program credits must be completed at Gateway, and 25% of the 40 Individualized Technical Studies credits must be completed at Gateway.
5. Complete 890-155 Gateway to Success in first semester of program. See an advisor for details.

For a complete list of Graduation Requirements, check the Student Handbook.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Computer Support Specialist (10-154-3)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine/days, E-E Elkhorn/evenings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-E
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*154-119	3	System Software Support <sup>3</sup>	Coreq: 801-136	F	F
1	*107-011	3	IT in Business <sup>3</sup>		F	F
1	*107-193	3	🎓 IT Essentials <sup>3</sup>		F	F
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F	F
2	*154-114	3	🎓 Hardware & Software Support <sup>3</sup>	Prereq: 154-119; 107-193	S	S
2	809-196	3	Sociology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S	S
	OR 809-172		Diversity Studies, Introduction to <sup>1,3</sup>			
2	*154-122	3	🎓 Introduction to Help/Service Desk	Prereq: 107-193 Coreq: 804-135 OR 804-115	S	S
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S	S
	OR 804-115		College Technical Math 1 <sup>1,3</sup>			
3	*150-145	3	IT Scripting		SU	SU
3	801-197	3	Technical Reporting	Prereq: 801-136	SU	SU
3	809-143	3	Microeconomics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU	SU
	OR 809-195		Economics <sup>1,3</sup>			
3	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU	SU
4	*154-113	3	IT Apps Server & Support <sup>3</sup>	Prereq: 154-114	F	F
4	*154-112	3	Data Security & Recovery Support	Prereq: 154-114; 804-135 OR 804-115	F	F
4	*154-120	3	Advanced Help/Service Desk	Prereq: 154-122	F	F
4	*150-182	3	IoT: Connecting Devices		F	F
5	*154-116	2	Emerging Technologies and Apps.	Prereq: 154-112	S	S
5	*154-118	3	CSS Skills Implementation & Career Prep	Prereq: 154-113; 801-197	S	S
5	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S	S
5	*107-177	4	IT Project Management <sup>3</sup>	Prereq: 154-113; 801-197	S	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### IT – Computer Support Specialist (10-154-3)

The *IT – Computer Support Specialist* program has been designed to prepare students for a career in Information Technology, providing end-user service and support in a variety of environments, including small business, not-for-profit and enterprise-sized corporations. Topics include the architecture, use, installation, and upgrading of hardware and software, operating systems, networking, and communications as well as data security and recovery. Students will evaluate user hardware and software needs, function as a liaison between their firm and outside contractors or vendors, research emerging technologies, and provide user training for both hardware and software.

This coursework starts you down the path to earn your A+, Security+, Network+, ITIL, MS Fundamentals and Google IT Support Professional.

#### Program Learning Outcomes

Graduates will be able to:

1. Manage information technology hardware.
2. Manage software.
3. Support computer networks.
4. Provide end user support.
5. Solve information technology problems.
6. Demonstrate customer service skills as an IT professional.
7. Coordinate technology projects.

#### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### Suggested Electives

154-109 IT-Computer Support Specialist Internship	150-114 Network Concepts – CCNA 1
154-130 Google IT Support Professional 1	152-080 Databases
154-131 Google IT Support Professional 2	156-018 Fundamentals of IT

#### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. See your advisor if you have questions about course selection.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**





**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Computer Support Specialist (10-154-3)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

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**R-D = Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*107-011	3	IT in Business <sup>3</sup>		F
1	*107-193	3	🎓 IT Essentials <sup>3</sup>		F
2	801-136	3	English Composition 11. <sup>3</sup>	Prereq: 831-103 OR 851-757	S
2	*154-119	3	System Software Support <sup>3</sup>	Coreq: 801-136	S
3	*154-114	3	🎓 Hardware & Software Support <sup>3</sup>	Prereq: 154-119; 107-193	SU
3	*154-122	3	🎓 Introduction to Help/Service Desk	Prereq: 107-193 Coreq: 804-135 OR 804-115	SU
3	804-135 OR 804-115	3 5	Quantitative Reasoning <sup>1,3</sup> OR College Technical Math 11. <sup>3</sup>	Prereq: 834-109	SU
4	*154-112	3	Data Security & Recovery Support	Prereq: 154-114; 804-135 OR 804-115	F
4	*154-113	3	IT Apps Server & Support <sup>3</sup>	Prereq: 154-114	F
4	*154-120	3	Advanced Help/Service Desk	Prereq: 154-122	F
5	801-197	3	Technical Reporting	Prereq: 801-136	S
5	809-196 OR 809-172	3	Sociology, Introduction to <sup>1,3</sup> OR Diversity Studies, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S
6	*150-145	3	IT Scripting		SU
6	809-143 OR 809-195	3	Microeconomics <sup>1,3</sup> OR Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU
7	*150-182	3	IoT: Connecting Devices		F
7	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
8	*107-177	4	IT Project Management <sup>3</sup>	Prereq: 154-113; 801-197	S
8	*154-116	2	Emerging Technologies and Apps.	Prereq: 154-112	S
8	*154-118	3	CSS Skills Implementation & Career Prep	Prereq: 154-113; 801-197	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### IT – Computer Support Specialist (10-154-3)

The *IT – Computer Support Specialist* program has been designed to prepare students for a career in Information Technology, providing end-user service and support in a variety of environments, including small business, not-for-profit and enterprise-sized corporations. Topics include the architecture, use, installation, and upgrading of hardware and software, operating systems, networking, and communications as well as data security and recovery. Students will evaluate user hardware and software needs, function as a liaison between their firm and outside contractors or vendors, research emerging technologies, and provide user training for both hardware and software.

This coursework starts you down the path to earn your A+, Security+, Network+, ITIL, MS Fundamentals and Google IT Support Professional.

#### Program Learning Outcomes

Graduates will be able to:

1. Manage information technology hardware.
2. Manage software.
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4. Provide end user support.
5. Solve information technology problems.
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#### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### Suggested Electives

154-109 IT-Computer Support Specialist Internship	150-114 Network Concepts – CCNA 1
154-130 Google IT Support Professional 1	152-080 Databases
154-131 Google IT Support Professional 2	156-018 Fundamentals of IT

#### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Cybersecurity Specialist (10-151-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*150-182	3	IoT: Connecting Devices		F
1	*150-194	3	🎓 Network Security <sup>2</sup>		F
1	*150-114	3	🎓 Network Concepts–CCNA 1 <sup>2</sup>	Coreq: 804-135	F
1	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
2	*150-106	3	Intrusion Detection Systems		S
2	*150-119	3	🎓 Network Admin MS I 2019	Coreq: 150-114	S
2	*151-123	3	Cybersecurity		S
2	801-136	3	English Composition 11 <sup>2</sup>	Prereq: 831-103 OR 851-757	S
3	*150-115	3	IoT: Securing Devices	Prereq: 150-182; 804-135	SU
3	*150-124	3	Routing – CCNA 2 <sup>2</sup>	Prereq: 150-114	SU
3	*150-145	3	IT Scripting		SU
3	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*150-150	3	Red Hat Enterprise Linux I <sup>2</sup>	Prereq: 150-119 Coreq: 801-136	F
4	*151-130	3	Cisco CyberOps (SOC)	Prereq: 151-123	F
4	*151-131	3	Managing and Configuring Firewalls	Prereq: 151-123	F
4	801-197	3	Technical Reporting	Prereq: 801-136	F
5	*150-151	3	Red Hat Enterprise Linux II <sup>2</sup>	Prereq: 150-150	S
5	*151-121	3	Cloud Data Security	Prereq: 151-123	S
5	*151-122	3	Computer Security/Pen Test	Prereq: 151-130	S
5	*151-132	3	SOC: Monitor/Secure the Infrastructure	Prereq: 151-130	S

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Cybersecurity Specialist (10-151-2)

*Cybersecurity Specialists* monitor an organization's computer network, maintain system security and upgrade security measures to prevent computer security incidents and cyberattacks. Learn to protect data confidentiality, integrity and availability while learning ways to implement security mechanisms. Emphasis is placed on vigilant security awareness, identifying network threats and deploying appropriate incident responses. Through hands-on lab work, learners will build practical experience with topics such as penetration testing, log analysis, the implementation of firewalls, wireless security and incident response, as well as defenses and countermeasures. Learners will gain an understanding of legal and ethical issues associated with information security. Learners will analyze a variety of network operating systems, firewalls, virtual private networks (VPN), packet filters and intrusion detection systems (IDS) to maximize information security in the network.

### Program Learning Outcomes

Graduates will be able to:

1. Identify security strategies.
2. Implement secure infrastructures.
3. Conduct security testing.
4. Analyze security data.
5. Mitigate risk.
6. Develop security documentation.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 64 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Cybersecurity Specialist (10-151-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-E = Elkhorn/evenings, R-E = Racine/evenings, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-E	R-E	O
1	890-155	1	📍 Gateway to Success (G2S)		F	F	F
1	*150-182	3	IoT: Connecting Devices		F	F	F
1	*150-194	3	🎓 Network Security <sup>2</sup>		F	F	F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F	F	F
2	*150-114	3	🎓 Network Concepts–CCNA 1 <sup>2</sup>	Coreq: 804-135	S	S	S
2	*150-119	3	🎓 Network Admin MS I 2019	Coreq: 150-114	S	S	S
2	*151-123	3	Cybersecurity		S	S	S
3	*150-124	3	Routing – CCNA 2 <sup>2</sup>	Prereq: 150-114	SU	SU	SU
3	*150-145	3	IT Scripting		SU	SU	SU
3	801-136	3	English Composition 11 <sup>2</sup>	Prereq: 831-103 OR 851-757	SU	SU	SU
4	*151-130	3	Cisco CyberOps (SOC)	Prereq: 151-123	F	F	F
4	*151-131	3	Managing and Configuring Firewalls	Prereq: 151-123	F	F	F
5	*150-106	3	Intrusion Detection Systems		S	S	S
5	*151-121	3	Cloud Data Security	Prereq: 151-123	S	S	S
6	*150-115	3	IoT: Securing Devices	Prereq: 150-182; 804-135	SU	SU	SU
6	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU
7	*150-150	3	Red Hat Enterprise Linux I <sup>2</sup>	Prereq: 150-119 Coreq: 801-136	F	F	F
7	801-197	3	Technical Reporting	Prereq: 801-136	F	F	F
7	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F	F	F
8	*150-151	3	Red Hat Enterprise Linux II <sup>2</sup>	Prereq: 150-150	S	S	S
8	*151-122	3	Computer Security/Pen Test	Prereq: 151-130	S	S	S
8	*151-132	3	SOC: Monitor/Secure the Infrastructure	Prereq: 151-130	S	S	S

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Cybersecurity Specialist (10-151-2)

*Cybersecurity Specialists* monitor an organization's computer network, maintain system security and upgrade security measures to prevent computer security incidents and cyberattacks. Learn to protect data confidentiality, integrity and availability while learning ways to implement security mechanisms. Emphasis is placed on vigilant security awareness, identifying network threats and deploying appropriate incident responses. Through hands-on lab work, learners will build practical experience with topics such as penetration testing, log analysis, the implementation of firewalls, wireless security and incident response, as well as defenses and countermeasures. Learners will gain an understanding of legal and ethical issues associated with information security. Learners will analyze a variety of network operating systems, firewalls, virtual private networks (VPN), packet filters and intrusion detection systems (IDS) to maximize information security in the network.

### Program Learning Outcomes

Graduates will be able to:

1. Identify security strategies.
2. Implement secure infrastructures.
3. Conduct security testing.
4. Analyze security data.
5. Mitigate risk.
6. Develop security documentation.

### Essential Career Competencies

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- Communication
- Professionalism and Career Management
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- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 64 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – AI Data Specialist (10-156-3)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*152-080	3	🎓 Databases		F
1	*152-081	3	🎓 Programming in Python		F
1	*156-018	3	Fundamentals of IT	Coreq: 804-135	F
1	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	F
2	*156-100	3	Data Analytics 1	Prereq: 152-081	S
2	*156-102	3	Intro to Artificial Intelligence	Prereq: 152-081	S
2	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	S
2	804-189	3	Statistics <sup>4</sup>	Prereq: 804-135	S
3	*156-019	3	Intro to MIS	Coreq: 801-136	SU
3	*156-103	3	Intro to Machine Learning	Prereq: 152-081	SU
3	801-196 <b>OR</b> 801-198	3	Oral/Interpersonal Communication <b>OR</b> Speech		SU
3	809-198	3	Psychology, Intro to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU
4	*156-101	3	Data Analytics 2	Prereq: 156-100; 152-080	F
4	*156-104	3	Natural Language Processing	Prereq: 156-102; 156-103	F
4	*156-120	3	Programming in R	Prereq: 156-100; 804-189	F
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
5	*156-105	3	AI for Computer Vision	Prereq: 156-102; 156-103	S
5	*156-125	3	Business Intelligence and Visualization	Prereq: 156-101; 156-120	S
5	*156-130	3	Data Analytics Capstone	Prereq: 156-101; 156-120 Coreq: 156-125	S
5	809-195 <b>OR</b> 809-143	3	Economics <sup>1,4</sup> <b>OR</b> Microeconomics <sup>1,4</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.



## IT – AI Data Specialist (10-156-3)

The *IT – AI Data Specialist* program trains students to identify, utilize, and interpret data from various sources, and to visualize that data to resolve business questions that impact data-driven decisions. Topics will include using current technologies to work with large data sets, securing data from various sources, database technologies, computer programming in Python and R, statistical analysis of data, creating visualizations and business intelligence, and completing real-world projects. Typical entry-level positions for this training opportunity include Operations Research Analyst, Computer Systems Analyst, Database Specialist, Data Analyst, and Junior Data Scientist.

### Program Learning Outcomes

Graduates will be able to:

1. Collect large data sets from multiple sources.
2. Organize data using software tools.
3. Create visualizations of data to drive decision making.
4. Communicate technical information to stakeholders.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-182 Web Programming 1	152-097 JavaScript
152-184 Java Programming 1	150-106 Intrusion Detection Systems
138-118 International Bizsquad	152-106 Swift Programming 1
152-107 Swift Programming 2	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution, please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. IT- AI Data Specialist is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – AI Data Specialist (10-156-3)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

O = Online, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*156-018	3	Fundamentals of IT	Coreq: 804-135	F
1	*152-081	3	🎓 Programming in Python		F
1	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	F
2	*156-100	3	Data Analytics 1	Prereq: 152-081	S
2	*156-102	3	Intro to Artificial Intelligence	Prereq: 152-081	S
2	804-189	3	Statistics <sup>4</sup>	Prereq: 804-135	S
3	*152-080	3	🎓 Databases		SU
3	*156-103	3	Intro to Machine Learning	Prereq: 152-081	SU
3	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	SU
4	*156-101	3	Data Analytics 2	Prereq: 156-100; 152-080	F
4	*156-104	3	Natural Language Processing	Prereq: 156-102; 156-103	F
4	*156-120	3	Programming in R	Prereq: 156-100; 804-189	F
5	*156-105	3	AI for Computer Vision	Prereq: 156-102; 156-103	S
5	*156-125	3	Business Intelligence and Visualization	Prereq: 156-101; 156-120	S
5	*156-130	3	Data Analytics Capstone	Prereq: 156-101; 156-120 Coreq: 156-125	S
6	*156-019	3	Intro to MIS	Coreq: 801-136	SU
6	809-198	3	Psychology, Intro to <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU
6	809-195	3	Economics <sup>1,4</sup>		SU
6	<b>OR</b> 809-143	<b>OR</b> 3	<b>OR</b> Microeconomics <sup>1,4</sup>	Prereq: 838-105 OR 851-757	SU
7	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
7	801-196	3	Oral/Interpersonal Communication		F
7	<b>OR</b> 801-198	<b>OR</b> 3	<b>OR</b> Speech		F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

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(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## IT – AI Data Specialist (10-156-3)

The *IT – AI Data Specialist* program trains students to identify, utilize, and interpret data from various sources, and to visualize that data to resolve business questions that impact data-driven decisions. Topics will include using current technologies to work with large data sets, securing data from various sources, database technologies, computer programming in Python and R, statistical analysis of data, creating visualizations and business intelligence, and completing real-world projects. Typical entry-level positions for this training opportunity include Operations Research Analyst, Computer Systems Analyst, Database Specialist, Data Analyst, and Junior Data Scientist.

### Program Learning Outcomes

Graduates will be able to:

1. Collect large data sets from multiple sources.
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4. Communicate technical information to stakeholders.

### Essential Career Competencies

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- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-182 Web Programming 1	152-097 JavaScript
152-184 Java Programming 1	150-106 Intrusion Detection Systems
138-118 International Bizsquad	152-106 Swift Programming 1
152-107 Swift Programming 2	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution, please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. IT- AI Data Specialist is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Network Specialist (10-150-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine/days, E-D = Elkhorn/days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-D	O
1	890-155	1	📍 Gateway to Success (G2S)		F	F	F
1	*107-011	3	IT in Business <sup>2</sup>		F	F	F
1	*150-114	3	🎓 Network Concepts–CCNA 1 <sup>2</sup>	Coreq: 804-135	F	F	F
1	*150-182	3	IoT: Connecting Devices		F	F	F
1	804-135	3	Quantitative Reasoning <sup>1, 2</sup>	Prereq: 834-109	F	F	F
2	*107-193	3	🎓 IT Essentials <sup>2</sup>		S	S	S
2	*150-119	3	🎓 Network Admin MS I 2019	Coreq: 150-114	S	S	S
2	*150-145	3	IT Scripting		S	S	S
2	801-136	3	English Composition 1 <sup>1, 2</sup>	Prereq: 831-103 OR 851-757	S	S	S
2	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S	S	S
3	*150-120	3	Network Admin MS 2 2019	Prereq: 150-119 Coreq: 804-135	SU	SU	SU
3	*150-124	3	Routing – CCNA 2 <sup>2</sup>	Prereq: 150-114	SU	SU	SU
3	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU
4	*150-150	3	Red Hat Enterprise Linux I <sup>2</sup>	Prereq: 150-119	F	F	F
4	*150-181	4	Cloud Technologies <sup>2</sup>	Prereq: 150-124	F	F	F
4	*150-194	3	Network Security <sup>2</sup>		F	F	F
4	801-197	3	Technical Reporting	Prereq: 801-136	F	F	F
5	*150-151	3	Red Hat Enterprise Linux II <sup>2</sup>	Prereq: 150-150	S	S	S
5	*150-136	3	Server Technologies <sup>2</sup>	Prereq: 107-193; 801-197	S	S	S
5	*150-183	3	VCP – Virtualization <sup>2</sup>	Prereq: 150-124	S	S	S
5	*107-013	1	IT Job Skills <sup>2</sup>	Prereq: 801-136	S	S	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Network Specialist (10-150-2)

*IT-Network Specialist* is designed to prepare students for a professional career in the computer network field. The program takes the students from the beginning architectural design process through installation, configuration, administration, and tuning of microcomputer network environments. Additional topics incorporated into the program include cross-platform and enterprise network environments.

### Program Learning Outcomes

Graduates will be able to:

1. Implement computer networks.
2. Implement client systems.
3. Implement server operating systems.
4. Implement network security components.
5. Develop technical documentation.
6. Troubleshoot network systems.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments

### Graduation Requirements

- Minimum 60 credits a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Network Specialist (10-150-2)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

E-D = Elkhorn/days, R-D = Racine/days, O = Online, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D	O
1	890-155	1	Gateway to Success (G2S)		F	F	F
1	*107-193	3	IT Essentials <sup>2</sup>		F	F	F
1	801-136	3	English Composition 1 <sup>1, 2</sup>	Prereq: 831-103 OR 851-757	F	F	F
2	*150-114	3	Network Concepts–CCNA 1 <sup>2</sup>	Coreq: 804-135	S	S	S
2	*150-119	3	Network Admin MS I 2019	Coreq: 150-114	S	S	S
2	804-135	3	Quantitative Reasoning <sup>1, 2</sup>	Prereq: 834-109	S	S	S
3	*107-011	3	IT in Business <sup>2</sup>		SU	SU	SU
3	*150-124	3	Routing – CCNA 2 <sup>2</sup>	Prereq: 150-114	SU	SU	SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU
4	*150-150	3	Red Hat Enterprise Linux I <sup>2</sup>	Prereq: 150-119	F	F	F
4	*150-182	3	IoT: Connecting Devices		F	F	F
4	*150-194	3	Network Security <sup>2</sup>		F	F	F
5	*150-183	3	VCP – Virtualization <sup>2</sup>	Prereq: 150-124	S	S	S
5	801-197	3	Technical Reporting	Prereq: 801-136	S	S	S
6	*150-120	3	Network Admin MS 2 2019	Prereq: 150-119 Coreq: 804-135	SU	SU	SU
6	*150-145	3	IT Scripting		SU	SU	SU
7	*150-181	4	Cloud Technologies <sup>2</sup>	Prereq: 150-124	F	F	F
7	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F	F	F
8	*107-013	1	IT Job Skills <sup>2</sup>	Prereq: 801-136	S	S	S
8	*150-136	3	Server Technologies <sup>2</sup>	Prereq: 107-193; 801-197	S	S	S
8	*150-151	3	Red Hat Enterprise Linux II <sup>2</sup>	Prereq: 150-150	S	S	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 (“C”) or above for these major courses to meet graduation requirements.

## IT – Network Specialist (10-150-2)

*IT-Network Specialist* is designed to prepare students for a professional career in the computer network field. The program takes the students from the beginning architectural design process through installation, configuration, administration, and tuning of microcomputer network environments. Additional topics incorporated into the program include cross-platform and enterprise network environments.

### Program Learning Outcomes

Graduates will be able to:

1. Implement computer networks.
2. Implement client systems.
3. Implement server operating systems.
4. Implement network security components.
5. Develop technical documentation.
6. Troubleshoot network systems.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Software Developer (10-152-1)**

Associate of Applied Science

**Effective 2024/2025**

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Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D= Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*107-011	3	IT in Business <sup>2</sup>		F
1	*152-126	4	🎓 Intro to Prog. & Database Concepts		F
1	*152-105	2	🎓 IBM Enterprise System Concepts <sup>2</sup>	Coreq: 107-011	F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
	<b>OR</b> 804-115	5	<b>OR</b> College Technical Math <sup>1,2</sup>	Prereq: 834-110	
2	*152-133	2	IBM Control Language	Prereq: 152-105	S
2	*152-141	3	🎓 Java Programming – IBM Systems	Prereq: 152-126; 152-105	S
2	*152-145	3	Internet Programming	Prereq: 152-126	S
2	*152-151	3	Microcomputer Prog. Advanced	Prereq: 152-126	S
2	801-136	3	English Composition <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
3	801-197	3	Technical Reporting	Prereq: 801-136	SU
4	*152-122	3	Computer Programming RPG/IV (ILE)	Prereq: 152-133; 152-126	F
4	*152-168	3	IBM and .NET Enterprise Programming	Prereq: 152-151	F
4	*152-093	3	IBM Advanced Java Programming	Prereq: 152-141; 152-145; 801-136; 804-135 OR 804-115	F
4	*152-164	3	Mobile Device Programming	Prereq: 152-126	F
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
5	*152-125	3	Computer Program, RPG/IV (ILE) Adv.	Prereq: 152-122	S
5	*152-131	3	Systems Design / Development	Prereq: 152-122	S
5	*152-167	3	Zend (PHP) Application Programming	Prereq: 152-141	S
5	*152-158	3	DB2/UDB Programming	Prereq: 152-126; 152-105	S
5	809-195	3	Economics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S
	<b>OR</b> 809-143		<b>OR</b> Microeconomics <sup>1,2</sup>		

**Minimum Program Total Credits Required: 63**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

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## IT – Software Developer (10-152-1)

*IT-Software Developer* covers the rapidly changing field of Information Technology with its multiple job opportunities; it may be completed in five semesters if taken full-time. The curriculum includes various types of programming, program analysis, and system software. Typical entry-level positions are entry-level programmer and computer operator.

### Program Learning Outcomes

Graduates will be able to:

1. Design software systems.
2. Implement a team-based software development methodology.
3. Navigate in a software development environment.
4. Integrate data technologies.
5. Develop software applications.
6. Develop technical documentation.

### Essential Career Competencies

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- Cultural Competence
- Critical Thinking and Problem Solving
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### Graduation Requirements

- Minimum 63 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-081 Programming in Python	152-124 Computer Programming C++
152-157 Game Programming I	809-196 Sociology, Intro to
801-198 Speech	809-172 Diversity Studies, Intro to
809-112 Principles of Sustainability	801-196 Oral/Interpersonal Communication

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See and advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. IT-Software Developer is a laptop program. Students will need a Windows-Based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Software Developer (10-152-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O - Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*107-011	3	IT in Business <sup>2</sup>		F
1	*152-126	4	🎓 Intro to Prog. & Database Concepts		F
1	*152-105	2	🎓 IBM Enterprise System Concepts <sup>2</sup>	Coreq: 107-011	F
2	*152-151	3	Microcomputer Prog. Advanced	Prereq: 152-126	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
	<b>OR</b>		<b>OR</b>		
	804-115	5	College Technical Math <sup>1,2</sup>	Prereq: 834-110	
2	*152-133	2	IBM Control Language	Prereq: 152-105	S
3	801-136	3	English Composition <sup>1,2</sup>	Prereq: 831-103 OR 851-757	SU
3	*152-141	3	🎓 Java Programming – IBM Systems	Prereq: 152-126; 152-105	SU
3	*152-145	3	Internet Programming	Prereq: 152-126	SU
4	*152-168	3	IBM and .NET Enterprise Programming	Prereq: 152-151	F
4	*152-093	3	IBM Advanced Java Programming	Prereq: 152-141; 152-145; 801-136; 804-135 OR 804-115	F
4	*152-164	3	Mobile Device Programming	Prereq: 152-126	F
5	*152-158	3	DB2/UDB Programming	Prereq: 152-126; 152-105	S
5	*152-167	3	Zend (PHP) Application Programming	Prereq: 152-141	S
5	801-197	3	Technical Reporting	Prereq: 801-136	S
6	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
6	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU
7	*152-122	3	Computer Programming RPG/IV (ILE)	Prereq: 152-133; 152-126	F
7	809-195	3	Economics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
	<b>OR</b>		<b>OR</b>		
	809-143	Microeconomics <sup>1,2</sup>			
8	*152-125	3	Computer Program, RPG/IV (ILE) Adv.	Prereq: 152-122	S
8	*152-131	3	Systems Design / Development	Prereq: 152-122	S

**Minimum Program Total Credits Required: 63**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Software Developer (10-152-1)

*IT-Software Developer* covers the rapidly changing field of Information Technology with its multiple job opportunities; it may be completed in eight semesters if taken part-time. The curriculum includes various types of programming, program analysis, and system software. Typical entry-level positions are entry-level programmer and computer operator.

### Program Learning Outcomes

Graduates will be able to:

1. Design software systems.
2. Implement a team-based software development technology.
3. Navigate in a software development environment.
4. Integrate data technologies.
5. Develop software applications.
6. Develop technical documentation.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 63 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-081 Programming in Python	152-124 Computer Programming C++
152-157 Game Programming I	809-196 Sociology, Intro to
801-198 Speech	809-172 Diversity Studies, Intro to
809-112 Principles of Sustainability	801-196 Oral/Interpersonal Communication

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. IT-Software Developer is a laptop program. Students will need a Windows-Based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Web Software Developer (10-152-4)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*152-081	3	Programming in Python		F
1	*152-101	4	Web Programming		F
1	*152-184	3	🎓 Java Programming 1 <sup>3</sup>	Coreq: 804-135 OR 804-115	F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F
	<b>OR</b> 804-115	5	<b>OR</b> College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	
2	*152-097	3	🎓 Javascript	Prereq: 152-101 OR 152-182	S
2	*152-080	3	Databases		S
2	*152-174	3	Java Programming 2	Prereq: 152-184	S
2	*152-188	3	PHP Web Programming	Prereq: 152-101 OR 152-182; 152-184 OR 152-081	S
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S
3	*152-102	3	Advanced Web Programming	Prereq: 152-101 OR 152-182; 152-097	SU
3	*152-178	3	Develop ASP.NET Web Apps	Prereq: 152-101 OR 152-182; 152-097 OR 152-184 OR 152-081	SU
3	801-196	3	Oral/Interpersonal Communication		SU
	<b>OR</b> 801-198		<b>OR</b> Speech <sup>3</sup>		
4	*152-001	3	Front-End Development w/ React		F
4	*152-104	3	Web Frameworks	Prereq: 152-080;152-102	F
4	*152-164	3	Mobile Device Programming	Prereq: 152-184	F
4	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	F
5	*152-083	3	Web Developer Project	Prereq: 801-196 OR 801-198; 152-102 OR 152-150; 152-188; 801-136	S
5	*152-103	3	Advanced Programming in Python	Prereq: 152-081; 152-101 OR 152-182	S
5	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S
5	809-143	3	Microeconomics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S
	<b>OR</b> 809-195		<b>OR</b> Economics <sup>1,3</sup>		

**Minimum Program Total Credits Required: 62**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Web Software Developer (10-152-4)

The *IT-Web Software Developer* program trains students in the development and maintenance of business and e-Commerce web sites using a variety of software, programming, and scripting languages. Topics will include web site project management, design, development, deployment, and basic maintenance of back-end databases and websites. Typical entry-level positions for this training opportunity include web developer, web programmer, and web designer.

### Program Learning Outcomes

Graduates will be able to:

1. Plan web-based solutions.
2. Design web applications.
3. Build front-end of web-based software applications.
4. Build back-end of web-based software applications.
5. Integrate database technologies.
6. Develop technical documentation for web applications.
7. Test web applications.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 62 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-140 Web Internship	138-118 International Bizsquad
145-119 Entrepreneurship	809-172 Diversity Studies
152-106 Swift Programming 1	152-107 Swift Programming 2

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. IT-Web Software Developer is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Web Software Developer (10-152-4)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

O = Online, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*152-081	3	Programming in Python		F
1	*152-101	4	Web Programming		F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F
	<b>OR</b> 804-115	5	<b>OR</b> College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	
2	*152-080	3	Databases		S
2	*152-184	3	🎓 Java Programming 1 <sup>3</sup>	Coreq: 804-135 OR 804-115	S
3	*152-097	3	🎓 Javascript	Prereq: 152-101 OR 152-182	SU
3	*152-174	3	Java Programming 2	Prereq: 152-184	SU
3	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	SU
4	*152-102	3	Advanced Web Programming	Prereq: 152-101 OR 152-182; 152-097	F
4	*152-188	3	PHP Web Programming	Prereq: 152-101 OR 152-182; 152-184 OR 152-081	F
4	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F
5	*152-103	3	Advanced Programming in Python	Prereq: 152-081; 152-101 OR 152-182	S
5	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	S
5	801-196	3	Oral/Interpersonal Communication		S
	<b>OR</b> 801-198		<b>OR</b> Speech <sup>3</sup>		
6	*152-164	3	Mobile Device Programming	Prereq: 152-184	SU
6	*152-178	3	Develop ASP.NET Web Apps	Prereq: 152-101 OR 152-182; 152-097 OR 152-184 OR 152-081	SU
6	809-143	3	Microeconomics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU
	<b>OR</b> 809-195		<b>OR</b> Economics <sup>1,3</sup>		
7	*152-001	3	Front-End Development w/ React		F
7	*152-104	3	Web Frameworks	Prereq: 152-080;152-102	F
7	*152-083	3	Web Developer Project	Prereq: 801-196 OR 801-198; 152-102 OR 152-150; 152-188; 801-136	F

**Minimum Program Total Credits Required: 62**

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## IT – Web Software Developer (10-152-4)

The *IT-Web Software Developer* program trains students in the development and maintenance of business and e-Commerce web sites using a variety of software, programming, and scripting languages. Topics will include web site project management, design, development, deployment, and basic maintenance of back-end databases and websites. Typical entry-level positions for this training opportunity include web developer, web programmer, and web designer.

### Program Learning Outcomes

Graduates will be able to:

1. Plan web-based solutions.
2. Design web applications.
3. Build front-end of web-based software applications.
4. Build back-end of web-based software applications.
5. Integrate database technologies.
6. Develop technical documentation for web applications.
7. Test web applications.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

152-140 Web Internship	138-118 International Bizsquad
145-119 Entrepreneurship	809-172 Diversity Studies
152-106 Swift Programming 1	152-107 Swift Programming 2

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Gateway has many articulation agreements with four-year colleges and universities. If you are planning on transferring to a four-year institution please review this information online at [gtc.edu/transfer](http://gtc.edu/transfer). If an institution is not listed, please contact them directly to see which courses transfer. You may also contact your advisor for more information.
3. IT-Web Software Developer is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Interior Design (10-304-1)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*304-101	3	History of Furniture and Decorative Arts		F
1	*304-102	3	Principles of Interior Design		F
1	*304-122	3	Textiles		F
1	*304-128	3	🎓 Basic Architectural Drawing	Coreq: 801-136	F
1	801-136	3	English Composition 12,3	Prereq: 831-103 OR 851-757	F
2	*304-129	3	Visual Communication for Interior Design	Prereq: 304-102; 304-128	S
2	*304-133	3	Sustainable Materials and Finishes		S
2	*304-137	3	🎓 Advanced Architectural Drawing	Prereq: 304-102; 304-128	S
2	*304-156	3	Residential Design Studio 1	Prereq: 304-102; 304-128; Coreq: 804-135	S
2	804-135	3	Quantitative Reasoning <sup>2,3</sup>	Prereq: 834-109	S
3	*304-151	1	Center for Sustainable Living Practicum	Prereq: 304-133	SU
3	801-196	3	Oral/Interpersonal Communication		SU
3	809-198	3	Psychology, Introduction to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU
4	*304-116	3	Kitchen/Bathroom Plan	Prereq: 304-129; 304-137; 304-156; 801-136; 804-135; Coreq: 304-138 OR 304-157	F
4	*304-132	3	Sales and Professional Practice of Interior Design	Prereq: 304-156	F
4	*304-154	2	Interior Elements of Building Const.	Prereq: 304-156	F
4	*304-157	2	Residential Design Studio 2	Prereq: 304-156	F
4	*304-158	1	Commercial Design Software	Coreq: 304-157	F
4	809-195	3	Economics <sup>2,3</sup>	Prereq: 838-105 OR 851-757	F
5	*304-107	2	Internship for Interior Designers <sup>1</sup>	Prereq: 304-156; 304-132; 304-116; 304-154; Coreq: 304-130	S
5	*304-119	1	Portfolio Presentation	Prereq: Instructor Consent	S
5	*304-130	4	Commercial Design Studio	Prereq: 304-116; 304-132; 304-154; 304-156; Coreq: 304-107	S
5	*304-149	3	Advanced Kitchen and Bath	Prereq: 304-116	S
5	809-196	3	Sociology, Introduction to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Interior Design (10-304-1)

The *Interior Design* program emphasizes the design of functional, aesthetic, and technically proficient environments that meet the needs of people in spaces that are both safe and universally accessible. Green/sustainable practices are infused throughout the curriculum. Graduates are prepared with the necessary foundation skills in both manual and computer-aided graphics along with exposure to design studio processes and methodologies. Students are prepared to pursue careers in creative positions, as residential or commercial interior designers, kitchen and bath designers, designers in architectural firms, and more. Requires demonstration of the ability to create and execute a design portfolio, creative problem solving, and sustainability practices.

### Program Learning Outcomes

Graduates will be able to:

1. Integrate Codes that impact the interior environment
2. Integrate industry guidelines that impact the interior environment
3. Apply interior design business practices
4. Apply the design process to interior design projects
5. Design within the parameters of the built environment
6. Apply the fundamentals of design

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 65 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students must complete 72 hours of paid or unpaid internship work at an approved business. Transportation must be provided by the student.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**  
School of Protective and Human Services

**Interior Design (10-304-1)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*304-128	3	🎓 Basic Architectural Drawing	Coreq: 801-136	F
1	*304-102	3	Principles of Interior Design		F
1	801-136	3	English Composition 1 <sup>2,3</sup>	Prereq: 831-103 OR 851-757	F
2	*304-129	3	Visual Communication for Interior Design	Prereq: 304-102; 304-128	S
2	*304-137	3	🎓 Advanced Architectural Drawing	Prereq: 304-102; 304-128	S
2	804-135	3	Quantitative Reasoning <sup>2,3</sup>	Prereq: 834-109	S
3	801-196	3	Oral/Interpersonal Communication		SU
3	809-198	3	Psychology, Introduction to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU
4	*304-122	3	Textiles		F
4	*304-101	3	History of Furniture and Decorative Arts		F
5	*304-133	3	Sustainable Materials and Finishes		S
5	*304-156	3	Residential Design Studio 1	Prereq: 304-102; 304-128; Coreq: 804-135	S
6	*304-151	1	Center for Sustainable Living Practicum	Prereq: 304-133	SU
6	809-196	3	Sociology, Introduction to <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU
6	809-195	3	Economics <sup>2,3</sup>	Prereq: 838-105 OR 851-757	SU
7	*304-116	3	Kitchen/Bathroom Plan	Prereq: 304-129; 304-137; 304-156; 801-136; 804-135; Coreq: 304-138 OR 304-157	F
7	*304-132	3	Sales and Professional Practice of Interior Design	Prereq: 304-156	F
7	*304-154	2	Interior Elements of Building Const.	Prereq: 304-156	F
7	*304-157	2	Residential Design Studio 2	Prereq: 304-156	F
7	*304-158	1	Commercial Design Software	Coreq: 304-157	F
8	*304-107	2	Internship for Interior Designers <sup>1</sup>	Prereq: 304-156; 304-132; 304-116; 304-154; Coreq: 304-130	S
8	*304-119	1	Portfolio Presentation	Prereq: Instructor Consent	S
8	*304-130	4	Commercial Design Studio	Prereq: 304-116; 304-132; 304-154; 304-156; Coreq: 304-107	S
8	*304-149	3	Advanced Kitchen and Bath	Prereq: 304-116	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Interior Design (10-304-1)

The *Interior Design* program emphasizes the design of functional, aesthetic, and technically proficient environments that meet the needs of people in spaces that are both safe and universally accessible. Green/sustainable practices are infused throughout the curriculum. Graduates are prepared with the necessary foundation skills in both manual and computer-aided graphics along with exposure to design studio processes and methodologies. Students are prepared to pursue careers in creative positions, as residential or commercial interior designers, kitchen and bath designers, designers in architectural firms, and more. Requires demonstration of the ability to create and execute a design portfolio, creative problem solving, and sustainability practices.

### Program Learning Outcomes

Graduates will be able to:

1. Integrate Codes that impact the interior environment
2. Integrate industry guidelines that impact the interior environment
3. Apply interior design business practices
4. Apply the design process to interior design projects
5. Design within the parameters of the built environment
6. Apply the fundamentals of design

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 65 credits with an average of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students must complete 72 hours of paid or unpaid internship work at an approved business. Transportation must be provided by the student.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Landscape Horticulture (10-001-4)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*001-143	3	Herbaceous Plants	Coreq: 001-185	F
1	*001-146	1	🎓 Sustainable Landscape		F
1	*001-147	1	🎓 Soils and Plant Nutrition		F
1	*001-148	1	Plant Pests and Beneficials		F
1	*001-185	3	🎓 Intro to Horticulture		F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
2	*001-129	1	Pesticide Applicator Certification		S
2	*001-132	3	Landscape Plants Evergreen	Prereq: 001-185	S
2	*001-142	3	Vegetable Science		S
2	*001-151	3	Greenhouse Crops	Coreq: 804-135; 801-136	S
2	461-120	3	Small Power Equipment		S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
3	*001-111	3	Horticulture Practicum	Prereq: 001-147; 001-151	SU
3	801-196	3	OR 801-198	OR Speech <sup>2</sup>	SU
4	*001-130	3	Landscape Plants Trees/Shrubs Deciduous	Prereq: 001-185	F
4	*001-136	3	Landscape Management		F
4	*001-140	3	Landscape Design/Introduction	Prereq: 001-143; 001-146 Coreq: 001-130	F
4	*001-160	3	Landscape Construction and Enhancements	Prereq: 001-111	F
5	*001-117	3	Landscape Design/Advanced	Prereq: 001-140	S
5	*001-122	3	Horticulture Business Operations	Prereq: 001-136; 001-160	S
5	*001-159	1	3D Landscape Rendering	Coreq: 001-117	S
5	*001-180	1	Horticulture Portfolio	Prereq: 001-130; 001-143; 001-147; 001-151	S
5	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S
5	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 61**

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📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Landscape Horticulture (10-001-4)**

The Landscape Horticulture program trains students in sustainable landscape design and management. Plant identification, plant healthcare, hardscape development, irrigation installation and landscape estimating are important elements of this program. Plant health care explores pest and disease identification, prevention, and control through developing integrated pest- management systems. Learners will complete Pesticide Applicator Training. Technical skills such as proper planting, pruning, use of equipment and weed-control are covered. Sustainable landscape design and management is completed with hands-on, project-based learning all while considering environmental interactions and effects. Advanced skills in digital design, 3-D rendering, and presentation will also be taught. Campus and community projects provide opportunities for learners to engage in sustainable landscape design, installation, retrofits and management.

### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
2. Diagnose plant health.
3. Communicate as a horticulture professional.
4. Apply design principles.
5. Provide horticulture maintenance.
6. Apply the principles of plant science.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
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- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**





**Part-Time Pathway to Success**  
School of Protective and Human Services

## Landscape Horticulture (10-001-4)

Associate of Applied Science  
**Effective 2024/2025**

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Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*001-147	1	🎓 Soils and Plant Nutrition		F
1	*001-148	1	Plant Pests and Beneficials		F
1	*001-185	3	🎓 Intro to Horticulture		F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F
2	*001-151	3	Greenhouse Crops	Coreq: 804-135; 801-136	S
2	461-120	3	Small Power Equipment		S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
3	*001-143	3	Herbaceous Plants	Coreq: 001-185	SU
3	*001-146	1	🎓 Sustainable Landscape		SU
3	801-196	3	Oral/Interpersonal Communication		SU
	<b>OR</b> 801-198	<b>OR</b> 3	<b>OR</b> Speech <sup>2</sup>		
4	*001-130	3	Landscape Plants Trees/Shrubs Deciduous	Prereq: 001-185	F
4	*001-140	3	Landscape Design/Introduction	Prereq: 001-143; 001-146 Coreq: 001-130	F
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5	*001-159	1	3D Landscape Rendering	Coreq: 001-117	S
6	*001-111	3	Horticulture Practicum	Prereq: 001-147; 001-151	SU
6	*001-142	3	Vegetable Science		SU
7	*001-136	3	Landscape Management		F
7	*001-160	3	Landscape Construction and Enhancements	Prereq: 001-111	F
7	809-196	3	Sociology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F
8	*001-122	3	Horticulture Business Operations	Prereq: 001-136; 001-160	S
8	*001-180	1	Horticulture Portfolio	Prereq: 001-130; 001-143; 001-147; 001- 151	S
8	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 61**

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### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
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4. Apply design principles.
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### **Essential Career Competencies**

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- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

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## Leadership Development (10-196-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F/S/SU
1	*196-190	3	Leadership Development <sup>3</sup>		F/S/SU
1	*196-191	3	Supervision		F/S/SU
1	*196-137	3	🎓 Certified Service Specialist <sup>3</sup>		F/S/SU
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F/S/SU
2	*196-134	3	Legal Issues for Supervisors		F/S/SU
2	*196-169	3	Diversity and Change Management		F/S/SU
2	*196-193	3	🎓 Human Resource Management		F/S/SU
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F/S/SU
3	801-196	3	OR		F/S/SU
	801-198		OR		
3	809-198	3	Speech <sup>3</sup>		F/S/SU
3	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F/S/SU
3	809-166	3	Ethics: Theory & Applications, Intro to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F/S/SU
3	809-172	3	Diversity Studies, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F/S/SU
4	*196-136	3	Safety in the Workplace <sup>3</sup>		F/S/SU
4	*196-164	3	Personal Skills for Supervisors	Prereq: 801-136; 804-135	F/S/SU
4	*196-192	3	Managing for Quality <sup>3</sup>		F/S/SU
4	*196-189	3	Team Building and Problem Solving		F/S/SU
5	*196-156	3	Leadership Development Capstone	Prereq: Instructor Consent; 196-137; 164; 192; 193	F/S/SU
5	*196-151	3	Operations Management		F/S/SU
5	*196-133	3	OR		F/S/SU
	*196-188		OR		
5	101-112	3	Project Management		F/S/SU
5	101-112	3	Accounting for Business		F/S/SU

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

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## Leadership Development (10-196-1)

*Leadership Development* provides opportunities for those interested in acquiring or improving managerial/supervisory skills. The curriculum provides a blend of human relations and management development disciplines. This background enables the supervisor or manager to better understand how to attain organizational goals through the positive motivation of employees. Emphasis is placed on the “how-to-approach” which allows the instruction to be transferred from the classroom to the job.

### Program Learning Outcomes

Graduates will be able to:

1. Utilize quality strategies and tactics.
2. Apply effective leadership skills.
3. Apply Human Resource policies and procedures.
4. Perform supervisory management functions to achieve organizational objectives.

### Essential Career Competencies

Gateway’s six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
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## Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 (“C”) or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Enrollment for this program is intended for people currently employed in a position closely related to Supervisory Management or who wish to acquire skills to become a supervisor.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

## Accreditation Statement

Gateway Technical College’s Leadership Development program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

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**Part-Time Pathway to Success**  
School of Business and Transportation

## Leadership Development (10-196-1)

Associate of Applied Science  
**Effective 2024/2025**

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**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F/S/SU
1	*196-190	3	Leadership Development <sup>3</sup>		F/S/SU
1	*196-191	3	Supervision		F/S/SU
1	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	F/S/SU
2	801-196	3	Oral/Interpersonal Communication		F/S/SU
	<b>OR</b>		<b>OR</b>		
	801-198		Speech <sup>3</sup>		
2	*196-137	3	🎓 Certified Service Specialist <sup>3</sup>		F/S/SU
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F/S/SU
3	*196-134	3	Legal Issues for Supervisors		F/S/SU
3	*196-169	3	Diversity and Change Management		F/S/SU
3	*196-193	3	Human Resource Management		F/S/SU
4	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F/S/SU
	*196-164		Personal Skills for Supervisors	Prereq: 801-136; 804-135	
4	*196-189	3	Team Building and Problem Solving		F/S/SU
5	*196-136	3	Safety in the Workplace <sup>3</sup>		F/S/SU
5	*196-192	3	🎓 Managing for Quality <sup>3</sup>		F/S/SU
6	809-166	3	Ethics: Theory & Applications, Intro to <sup>1</sup>	Prereq: 838-105 OR 851-757	F/S/SU
	809-172		Diversity Studies, Introduction to <sup>1</sup>	Prereq: 838-105 OR 851-757	
6	101-112	3	Accounting for Business		F/S/SU
7	*196-156	3	Leadership Development Capstone	Prereq: Instructor Consent; 196-137; 164; 192; 193	F/S/SU
7	*196-151	3	Operations Management		F/S/SU
7	*196-133	3	Negotiations		F/S/SU
	<b>OR</b>		<b>OR</b>		
	*196-188		Project Management		

**Minimum Program Total Credits Required: 61**

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## Leadership Development (10-196-1)

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Graduates will be able to:

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## Admission Requirements

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## Graduation Requirements

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## Notes

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## Accreditation Statement

Gateway Technical College’s Leadership Development program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Legal Studies/Paralegal (10-110-1)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*110-101	3	🎓 Intro to the Paralegal Profession		F
1	*110-102	3	Civil Procedure		F
1	*110-103	3	Family Law		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*110-104	3	Law Office Management and Technology		S
2	*110-105	3	🎓 Legal Research		S
2	*110-106	3	Civil Litigation Procedures	Prereq: 110-102	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
2	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S
3	801-196 <b>OR</b> 801-198	3	Oral/Interpersonal Communication <b>OR</b> Speech <sup>2</sup>		SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*110-107	3	Criminal Law and Procedure		F
4	*110-112	3	Immigration/International Law		F
4	*110-109	3	Estate Planning and Probate		F
4	*110-110 <b>OR</b> *110-111	3	Admin Law/Health Care Public Benefits <b>OR</b> Guardianships and Protective Services		F
5	*110-108	3	Legal Writing	Prereq: 110-105; 801-136; 804-135	S
5	*110-113 <b>OR</b> *110-114	3	Employment Law <b>OR</b> Bankruptcy Law		S
5	*110-115	3	Ethics in the Legal Profession		S
5	*110-116	3	Trial Preparation/E-Discovery and Legal Tools		S
5	*110-117 <b>OR</b> *110-118	2	Paralegal Career Readiness <b>OR</b> Paralegal Internship	Prereq: 110-108	S

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.



### Legal Studies/Paralegal (10-110-1)

The Paralegal Program prepares students for responsible, entry-level paralegal positions. Working under the supervision of an attorney, paralegals serve as legal assistants who perform administrative and support tasks. Paralegals may work in the public sector or private law firms and may engage in a wide variety of legal duties. Graduates of this program will be qualified to perform specifically delegated substantive legal work for which a lawyer is responsible.

#### Program Learning Outcomes

Graduates will be able to:

1. Apply ethical principles in a legal environment.
2. Process legal documents.
3. Perform legal research.
4. Synthesize various sources into a supportable legal conclusion.
5. Demonstrate professionalism as a member of a legal team.

#### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Legal Studies/Paralegal (10-110-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*110-101	3	🎓 Intro to the Paralegal Profession		F
1	*110-102	3	Civil Procedure		F
1	*110-103	3	Family Law		F
2	*110-104	3	Law Office Management and Technology		S
2	*110-105	3	🎓 Legal Research		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	801-136	3	English Composition <sup>1,2</sup>	Prereq: 831-103 OR 851-757	SU
3	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*110-107	3	Criminal Law and Procedure		F
4	*110-109	3	Estate Planning and Probate		F
5	*110-106	3	Civil Litigation Procedures	Prereq: 110-102	S
5	*110-108	3	Legal Writing	Prereq: 110-105; 801-136; 804-135	S
5	*110-113	3	Employment Law		S
	<b>OR</b>		<b>OR</b>		
6	801-196	3	Oral/Interpersonal Communication		SU
	<b>OR</b>		<b>OR</b>		
6	801-198	3	Speech <sup>2</sup>		SU
	809-198		Psychology, Introduction to <sup>1,2</sup>		
7	*110-112	3	Immigration/International Law		F
7	*110-110	3	Admin Law/Health Care Public Benefits		F
	<b>OR</b>		<b>OR</b>		
8	*110-111	3	Guardianships and Protective Services		S
	<b>OR</b>		<b>OR</b>		
8	*110-115	3	Ethics in the Legal Profession		S
8	*110-116	3	Trial Preparation/E-Discovery and Legal Tools		S
8	*110-117	2	Paralegal Career Readiness	Prereq: 110-108	S
	<b>OR</b>		<b>OR</b>		
	*110-118		Paralegal Internship		

**Minimum Program Total Credits Required: 60**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

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🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Legal Studies/Paralegal (10-110-1)

The Paralegal Program prepares students for responsible, entry-level paralegal positions. Working under the supervision of an attorney, paralegals serve as legal assistants who perform administrative and support tasks. Paralegals may work in the public sector or private law firms and may engage in a wide variety of legal duties. Graduates of this program will be qualified to perform specifically delegated substantive legal work for which a lawyer is responsible.

### Program Learning Outcomes

Graduates will be able to:

1. Apply ethical principles in a legal environment.
2. Process legal documents.
3. Perform legal research.
4. Synthesize various sources into a supportable legal conclusion.
5. Demonstrate professionalism as a member of a legal team.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Liberal Arts - Associate of Arts (20-800-1) Effective 2024/2025

### Program Description

The Liberal Arts - Associate of Arts degree (AA) prepares students with the necessary academic and practical skills to complete a program of general education study and successfully transfer to a four-year college/university or to the workforce. The Associate of Arts requires coursework to prepare students to enter into many different areas of study, emphasizing humanities and social sciences.

### Program Learning Outcomes

Graduates will be able to:

1. Interface with diverse audiences in the target language using effective speaking, writing, listening, and nonverbal skills.
2. Incorporate critical analysis, logic, and rational thinking to solve problems, develop well-reasoned arguments, and make decisions.
3. Integrate an awareness of the social, political, economic, interdisciplinary, and multicultural nature of knowledge in diverse cultures.
4. Develop self-awareness and self-management skills necessary to succeed in academic and professional endeavors.
5. Combine effective teamwork and collaborative methods to achieve shared goals.
6. Integrate knowledge of current technologies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must submit official high school, GED or HSED transcript including a graduation or passing date.

### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Program Offerings

A student may start this degree program in the fall, spring, or summer semester. In order to graduate, students must complete the required number of credits in each stated category. Although there are a variety of course options which fulfill the credit requirements in each category, including daytime, evening, and online offerings, some of these course options are confined to specific campuses, times of day, or semesters. Travel between campuses may be required for select courses.

### Notes

1. Students who wish to take a course at UW-Parkside and apply it towards their degree requirements need to apply to UW-Parkside as a non-degree seeking student using the [UW System Application](#). UW-Parkside tuition and fee rates will apply.
2. Students planning to transfer to UW-Parkside upon completion of this degree should complete the Guaranteed Transfer form prior to completing 30 program credits at Gateway.
3. For guaranteed admission to UW-Parkside upon completion of this degree, students must complete the program with a minimum 2.0 cumulative GPA. Some academic programs may require a higher GPA for specific courses in the major. Students should consult with the UW-Parkside college advisor for their intended major.
4. Some courses offered in this program may be required to be completed online live via a video conferencing platform (set day and set time each week) or may be required to be completed online asynchronously (no set day or time each week) or completed hybrid (combination of in-person and online each week).
5. Students planning on transferring this degree to another institution are strongly encouraged to reach out to their transfer institution to confirm which Gateway Technical College courses will transfer most appropriately into their intended major of study.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Liberal Arts - Associate of Arts (20-800-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Full-Time Pathway to Success

Term	Suggested Sequencing
1	📍 Gateway to Success (G2S) – 1 credit
1	*801-136 English Composition – 3 credits
1	*809-172 Introduction to Diversity – 3 credits
1	*Humanities – take 3 credits
1	*Social Science – take 3 credits
2	*Communications – take 3 credits
2	*804-135 Quantitative Reasoning – 3 credits
2	*Social Science – take 3 credits
2	*Elective – take 3 credits
3	*World Languages – take 4 credits
3	*Speech – take 3 credits
3	*Health/Wellness – take 1 credit
3	*Elective – take 3 credits
4	*Social Science – take 3 credits
4	*Natural Science – take 4 credits
4	*Humanities – take 3 credits
4	*Elective – take 3 credits
5	*Natural Science – take 3-4 credits
5	*Humanities – take 3 credits
5	*Social Science – take 3 credits
5	*Elective – take 3 credits

### Part-Time Pathway to Success

Term	Suggested Sequencing
1	📍 Gateway to Success (G2S) – 1 credit
1	*801-136 English Composition – 3 credits
1	*809-172 Introduction to Diversity – 3 credits
2	*Communications – take 3 credits
2	*804-135 Quantitative Reasoning – 3 credits
3	*Natural Science – take 4 credits
3	*Speech – take 3 credits
4	*Social Science – take 3 credits
4	*Elective- take 3 credits
4	*Health/Wellness – take 1 credit
5	*Natural Science – take 3-4 credits
5	*Social Science – take 3 credits
6	*World Languages – take 4 credits
6	*Elective – take 3 credits
7	*Humanities – take 3 credits
7	*Elective – take 3 credits
7	*Social Science – take 3 credits
8	*Social Science – take 3 credits
8	*Humanities – take 3 credits
9	*Humanities – take 3 credits
9	*Elective – take 3 credits

**Minimum Program Total Credits Required: 60**

**NOTE: Visit [www.gtc.edu/la-arts](http://www.gtc.edu/la-arts) for additional course information. See an advisor for more details.**

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Liberal Arts - Associate of Science (20-800-2) Effective 2024/2025

### Program Description

The Liberal Arts - Associate of Science degree (AS) prepares students with the necessary academic and practical skills to complete a program of general education study and successfully transfer to a four-year college/university or to the workforce. The Associate of Science requires coursework to prepare students to enter into many different areas of study, emphasizing math and sciences.

### Program Learning Outcomes

Graduates will be able to:

1. Interface with diverse audiences in the target language using effective speaking, writing, listening, and nonverbal skills.
2. Incorporate critical analysis, logic, and rational thinking to solve problems, develop well-reasoned arguments, and make decisions.
3. Integrate an awareness of the social, political, economic, interdisciplinary, and multicultural nature of knowledge in diverse cultures.
4. Develop self-awareness and self-management skills necessary to succeed in academic and professional endeavors.
5. Combine effective teamwork and collaborative methods to achieve shared goals.
6. Integrate knowledge of current technologies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must submit official high school, GED or HSED transcript including a graduation or passing date.

### Graduation Requirements

- Minimum 60 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Program Offerings

A student may start this degree program in the fall, spring, or summer semester. In order to graduate, students must complete the required number of credits in each stated category. Although there are a variety of course options which fulfill the credit requirements in each category, including daytime, evening, and online offerings, some of these course options are confined to specific campuses, times of day, or semesters. Travel between campuses may be required for select courses.

### Notes

1. Students who wish to take a course at UW-Parkside and apply it towards their degree requirements need to apply to UW-Parkside as a non-degree seeking student using the [UW System Application](#). UW-Parkside tuition and fee rates will apply.
2. Students planning to transfer to UW-Parkside upon completion of this degree should complete the Guaranteed Transfer form prior to completing 30 program credits at Gateway.
3. For guaranteed admission to UW-Parkside upon completion of this degree, students must complete the program with a minimum 2.0 cumulative GPA. Some academic programs may require a higher GPA for specific courses in the major. Students should consult with the UW-Parkside college advisor for their intended major.
4. Some courses offered in this program may be required to be completed online live via a video conferencing platform (set day and set time each week) or may be required to be completed online asynchronously (no set day or time each week) or completed hybrid (combination of in-person and online each week).
5. Students planning on transferring this degree to another institution are strongly encouraged to reach out to their transfer institution to confirm which Gateway Technical College courses will transfer most appropriately into their intended major of study.

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## Liberal Arts - Associate of Science (20-800-2) Effective 2024/2025

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*Taking courses in the order shown will help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

### Full-Time Pathway to Success

Term	Suggested Sequencing
1	📍 Gateway to Success (G2S) – 1 credit
1	*804-115 College Technical Math 1 – 5 credits
1	*809-172 Introduction to Diversity – 3 credits
1	*801-136 English Composition – 3 credits
2	*Social Science – take 3 credits
2	*Communications – take 3 credits
2	*804-197 College Algebra & Trig w Apps – 5 credits
2	*Elective take 3-5 credits
3	*Speech – take 3 credits
3	*Health/Wellness – take 1 credit
3	*World Languages – take 4 credits
3	*Math/Natural Science Core 1 (see link) 3-5 credits
4	*Math/Natural Science Core 2 (see link) 3-5 credits
4	*Math/Natural Science Core 3 (see link) 3-5 credits
4	*Math/Natural Science Core 4 (see link) 3-5 credits
5	*Math/Natural Science Core 5 (see link) 3-5 credits
5	*Humanities – take 3 credits
5	*Elective take 3-5 credits

### Part-Time Pathway to Success

Term	Suggested Sequencing
1	📍 Gateway to Success (G2S) – 1 credit
1	*804-115 College Technical Math 1 – 5 credits
1	*Social Science – take 3 credits
2	*804-197 College Algebra & Trig w Apps – 5 credits
2	*Elective take 3-5 credits
3	*Math/Natural Science Core 1 (see link) 3-5 credits
3	*Health/Wellness – take 1 credit
4	*Math/Natural Science Core 2 (see link) 3-5 credits
4	*Math/Natural Science Core 3 (see link) 3-5 credits
5	*Math/Natural Science Core 4 (see link) 3-5 credits
5	*World Languages – take 4 credits
6	*801-136 English Composition – 3 credits
6	*809-172 Introduction to Diversity – 3 credits
7	*Math/Natural Science Core 5 (see link) 3-5 credits
7	*Elective take 3-5 credits
8	*Humanities – take 3 credits
8	*Speech – take 3 credits
8	*Communications – take 3 credits

**Minimum Program Total Credits Required: 60**

**NOTE: Visit [www.gtc.edu/la-science](http://www.gtc.edu/la-science) for additional course information. See an advisor for more details.**

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.  
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**Full-Time Pathway to Success**  
School of Business and Transportation

**Marketing (10-104-3)**  
Associate of Applied Science  
**Effective 2024/2025**

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Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, R-D = Racine/days, E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O	R-D	E-D
1	890-155	1	Gateway to Success (G2S)		F	F	F
1	*104-101	3	Marketing Principles		F	F	F
1	*102-137	3	Introduction to Business		F	F	F
	<b>OR</b>	<b>3</b>	<b>OR</b>				
	*102-160		Business Law <sup>2</sup>				
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F	F	F
1	103-143	3	Computers for Professionals <sup>2</sup>		F	F	F
2	*104-104	3	Selling Principles		S	S	S
2	*104-105	3	Promotion Principles		S	S	S
2	*104-194	3	International Marketing		S	S	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S	S	S
3	801-196	3	Oral/Interpersonal Communication		SU	SU	SU
	<b>OR</b>	<b>3</b>	<b>OR</b>				
	801-198		Speech <sup>2</sup>				
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU
4	*104-133	3	Social Media Strategies		F	F	F
4	*104-109	3	Marketing/Sports & Event Intro		F	F	F
4	*104-173	3	Marketing Research		F	F	F
4	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F	F	F
5	*104-137	3	Digital Marketing		S	S	S
5	101-112	3	Accounting for Business		S	S	S
	<b>OR</b>	<b>4</b>	<b>OR</b>				
	101-114		Accounting Principles <sup>2</sup>				
5	*104-115	3	Marketing Capstone/Internship	Prereq: Instructor Consent	S	S	S
5	*104-172	3	Marketing Management	Prereq: 801-136; 804-135	S	S	S
6	809-143	3	Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU
6	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU	SU	SU

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.  
 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
 (\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Marketing (10-104-3)

*Marketing* is a two-year associate degree program if taken full-time. Project-based learning applications prepare graduates for work in marketing and sales positions with opportunities to advance throughout their career. Students will develop an understanding of marketing strategies for consumers and business customers. Marketing skills acquired are in the emerging areas of promotion, sales, digital, social media, data analysis, and business strategies along with the creation of a complete written marketing plan.

### Program Learning Outcomes

Graduates will be able to:

1. Develop strategies to satisfy market needs.
2. Promote products to achieve a desired outcome.
3. Analyze market research to inform business decisions.
4. Apply selling strategies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

105-106 Business Communications	102-160 Business Law
145-119 Entrepreneurship	104-127 Retailing
201-101 Computer Illustration and Drawing Tech	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu)
3. Some courses are standard length for a semester while others are offered in an accelerated format.
4. Students will complete 144 hours of paid or unpaid internship work at an approved business.

### Accreditation Statement

Gateway Technical College's Marketing program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**  
School of Business and Transportation

**Marketing (10-104-3)**  
Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, K-E = Kenosha/evenings, R-D = Racine/days, E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O	K-E	R-D	E-D
1	890-155	1	Gateway to Success (G2S)		F	F	F	F
1	103-143	3	Computers for Professionals <sup>2</sup>		F	F	F	F
1	*104-101	3	Marketing Principles		F	F	F	F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F	F	F	F
2	*104-104	3	Selling Principles		S	S	S	S
2	*104-105	3	Promotion Principles		S	S	S	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S	S	S	S
3	801-196 OR 801-198	3	Oral/Interpersonal Communication OR Speech <sup>2</sup>		SU	SU	SU	SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	SU
4	*102-137 OR *102-160	3	Introduction to Business OR Business Law <sup>2</sup>		F	F	F	F
4	*104-133	3	Social Media Strategies		F	F	F	F
5	*104-137	3	Digital Marketing		S	S	S	S
5	*104-194	3	International Marketing		S	S	S	S
5	101-112 OR 101-114	3 4	Accounting for Business OR Accounting Principles <sup>2</sup>		S	S	S	S
6	809-143	3	Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU	SU	SU	SU
6	XXX-XXX	3	Elective Course	Take 3 credits at the associate degree level. Suggested electives listed on back.	SU	SU	SU	SU
7	*104-109	3	Marketing/Sports & Event Intro		F	F	F	F
7	*104-173	3	Marketing Research		F	F	F	F
7	809-172	3	Diversity Studies, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	F	F	F	F
8	*104-172	3	Marketing Management	Prereq: 801-136; 804-135	S	S	S	S
8	*104-115	3	Marketing Capstone/Internship	Prereq: Instructor Consent	S	S	S	S

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Marketing (10-104-3)

*Marketing* is a two-year associate degree program if taken full-time. Project-based learning applications prepare graduates for work in marketing and sales positions with opportunities to advance throughout their career. Students will develop an understanding of marketing strategies for consumers and business customers. Marketing skills acquired are in the emerging areas of promotion, sales, digital, social media, data analysis, and business strategies along with the creation of a complete written marketing plan.

### Program Learning Outcomes

Graduates will be able to:

1. Develop strategies to satisfy market needs.
2. Promote products to achieve a desired outcome.
3. Analyze market research to inform business decisions.
4. Apply selling strategies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Suggested Electives

105-106 Business Communications	102-160 Business Law
145-119 Entrepreneurship	104-127 Retailing
201-101 Computer Illustration and Drawing Tech	

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu)
3. Some courses are standard length for a semester while others are offered in an accelerated format.
4. Students will complete 144 hours of paid or unpaid internship work at an approved business.

### Accreditation Statement

Gateway Technical College's Marketing program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Mechanical Design Technology (10-606-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F+
1	*606-149	2	Introduction to MET <sup>3</sup>	Coreq: 606-128	F
1	*606-103	2	Material Properties		F
1	*606-128	2	CAD – Solidworks <sup>3</sup>		F
1	*606-141	3	AutoCAD – Mech Design Tech <sup>3</sup>		F
1	804-115	5	🎓 College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	F+
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S+
2	*606-129	2	CAD Solids / Advanced <sup>3</sup>	Prereq: 606-128	S
2	*606-151	3	🎓 Statics	Coreq: 804-115	S
2	*606-152	2	🎓 Engineering Graphics w/ CAD1 <sup>3</sup>	Prereq: 606-128; 606-149	S
2	*606-159	2	Manufacturing Processes	Prereq: 606-103 OR 606-136; Coreq: 801-136	S
3	*606-137	2	Manufacturing Process Appl <sup>2</sup>	Prereq: 606-159	SU
3	801-198	3	Speech <sup>3</sup>		SU+
3	806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	SU+
3	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+
4	*606-153	2	Engineering Graphics w/ CAD 2	Prereq: 606-152	F
4	*606-119	3	Motor Controls <sup>2</sup>		F
4	*606-131	3	Strength of Materials <sup>2</sup>	Prereq: 606-151	F
4	*606-142	2	Creo/Pro Engineer, Introduction to <sup>3</sup>		F
4	*606-118	2	Mechanisms	Prereq: 806-154	F
5	*606-138	2	Design Problems	Prereq: Instructor Consent; 801-136	S
5	*606-154	2	Engineering Graphics w/ CAD 3	Prereq: 606-152	S
5	*606-160	3	Fluid Power and Design <sup>2</sup>		S
5	*606-116	3	Machine Design / Elements of	Prereq: 606-131	S
5	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	S+

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Mechanical Design Technology (10-606-1)

In *Mechanical Design Technology*, comprehensive instruction is given and practical experience gained in mechanical design, drafting, and computer aided design (CAD). Extensive experience is gained with dimensioning practices, allowances, sections, drafting standards, auxiliary views, exploded views, fabrication drawings detail and assembly drawings, gears and cams, structural shapes, and intersections. Other topics covered through classroom study include practical geometry, basic fabrication methods, engineering geometry, strength of materials, engineering materials and properties, kinematics of machinery, and manufacturing processes.

### Program Learning Outcomes

Graduates will be able to:

1. Prepare detail and assembly drawings for documentation of mechanical components and products.
2. Create CAD geometry, parts, and assemblies.
3. Design mechanical components and products.
4. Analyze mechanical engineering problems.
5. Select purchase parts.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 64 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Mechanical Design Technology (10-606-1)**

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-E = iMET Center/evenings, I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	I-E
1	890-155	1	📍 Gateway to Success (G2S)		F+	F+
1	*606-128	2	CAD – Solidworks <sup>3</sup>		F	F
1	*606-149	2	Introduction to MET <sup>3</sup>	Coreq: 606-128	F	F
1	804-115	5	🎓 College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	F+	F+
2	*606-129	2	CAD Solids / Advanced <sup>3</sup>	Prereq: 606-128	S	S
2	*606-151	3	🎓 Statics	Coreq: 804-115	S	S
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S+	S+
3	806-154	4	General Physics 1 <sup>3</sup>	Prereq: 804-115 OR 804-197 OR 804-198	SU+	SU+
3	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+	SU+
4	*606-103	2	Material Properties		F	F
4	*606-118	2	Mechanisms	Prereq: 806-154	F	F
4	*606-131	3	Strength of Materials <sup>2</sup>	Prereq: 606-151	F	F
4	*606-142	2	Creo/Pro Engineer, Introduction to <sup>3</sup>		F	F
5	*606-116	3	Machine Design / Elements of	Prereq: 606-131	S	S
5	*606-152	2	🎓 Engineering Graphics w/ CAD <sup>1,3</sup>	Prereq: 606-128; 606-149	S	S
5	*606-159	2	Manufacturing Processes	Prereq: 606-103 OR 606-136 Coreq: 801-136	S	S
6	*606-137	2	Manufacturing Process Appl <sup>2</sup>	Prereq: 606-159	SU	SU
6	801-198	3	Speech <sup>3</sup>		SU+	SU+
6	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+	SU+
7	*606-119	3	Motor Controls <sup>2</sup>		F	F
7	*606-141	3	AutoCAD – Mech Design Tech <sup>3</sup>		F	F
7	*606-153	2	Engineering Graphics w/ CAD 2	Prereq: 606-152	F	F
8	*606-138	2	Design Problems	Prereq: Instructor Consent; 801-136	S	S
8	*606-154	2	Engineering Graphics w/ CAD 3	Prereq: 606-152	S	S
8	*606-160	3	Fluid Power and Design <sup>2</sup>		S	S

**Minimum Program Total Credits Required: 64**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.



## Mechanical Design Technology (10-606-1)

In *Mechanical Design Technology*, comprehensive instruction is given and practical experience gained in mechanical design, drafting, and computer aided design (CAD). Extensive experience is gained with dimensioning practices, allowances, sections, drafting standards, auxiliary views, exploded views, fabrication drawings detail and assembly drawings, gears and cams, structural shapes, and intersections. Other topics covered through classroom study include practical geometry, basic fabrication methods, engineering geometry, strength of materials, engineering materials and properties, kinematics of machinery, and manufacturing processes.

### Program Learning Outcomes

Graduates will be able to:

1. Prepare detail and assembly drawings for documentation of mechanical components and products.
2. Create CAD geometry, parts, and assemblies.
3. Design mechanical components and products.
4. Analyze mechanical engineering problems.
5. Select purchase parts.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 64 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Medical Laboratory Technician (10-513-1)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*513-110	1	Basic Lab Skills	Prereq: Program Admission	F
1	*513-111	2	Phlebotomy	Prereq: Program Admission	F
1	*513-113	1	🎓 QA Lab Math		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
1	806-177	4	General Anatomy and Physiology <sup>1,2,8</sup>		F
2	801-196 OR 801-198	3	Oral/Interpersonal Communication OR Speech <sup>2</sup>		S
2	806-186	4	🎓 Introduction to Biochemistry	Prereq: 806-134 OR 806-177 OR 806-209 OR 806-212	S
2	806-197	4	🎓 Microbiology <sup>1,2</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	S
2	809-166	3	Ethics: Theory & Applications, Intro to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S
3	*513-114	2	Urinalysis <sup>10</sup>	Prereq: 806-177; Advisor Consent	F
3	*513-115	2	Basic Immunology Concepts <sup>10</sup>	Prereq: 806-177; 806-197	F
3	*513-116	4	Clinical Chemistry <sup>11</sup>	Prereq: 806-186; Advisor Consent	F
3	*513-120	3	Basic Hematology <sup>10</sup>	Prereq: 806-177; Advisor Consent	F
3	*513-133	4	Clinical Microbiology <sup>12</sup>	Prereq: 806-197; Advisor Consent	F
4	*513-109	4	Blood Bank	Prereq: Instructor Consent	S
4	*513-121	1	Coagulation	Prereq: 513-120	S
4	*513-130	2	Advanced Hematology	Prereq: 513-120	S
4	*513-140	2	Advanced Microbiology	Prereq: 513-133	S
4	*513-170	2	Introduction to Molecular Diagnostics	Prereq: 513-116	S
4	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S
5	*513-151	3	Clinical Experience I	Prereq: 513-114; 513-115; 513-116; 513- 120; 513-133	SU
5	*513-152	4	Clinical Experience II <sup>5,8,9</sup>	Prereq: 513-151	SU

**Minimum Program Total Credits Required: 62**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Medical Laboratory Technician (10-513-1)

At career entry, the medical laboratory technician/medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communications skills will extend to frequent interactions with members of the healthcare team, external relations, customer service and patient education. The level of analysis ranges from waived and point of care testing to complex testing encompassing all major areas of the medical laboratory. The medical laboratory technician will have diverse functions in areas of preanalytical, analytical, post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training, and quality control monitoring wherever medical laboratory testing is performed.

### Program Learning Outcomes

Graduates will be able to:

1. Practice laboratory safety and regulatory compliance.
2. Collect and process biological specimens.
3. Monitor and evaluate quality control in the laboratory.
4. Apply modern clinical methodologies including problem solving and trouble shooting according to predetermined criteria.
5. Perform information processing in the clinical laboratory.
6. Model professional behaviors, ethics and appearance.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading and writing placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.

### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Students are selected based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information. Students must meet current petition requirements at the time they are eligible to enroll in 513 courses.
4. A liability insurance fee per semester is required.
5. A physical examination and immunization are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance.
6. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager and/or Drug Testing.
7. Must be completed to be eligible to take the MLT (ASCP) exam.
8. Course 806-151 Supplemental Chemistry for Healthcare is a recommended course to provide supplemental chemistry and math knowledge that is needed for this program.
9. Students must complete 288 hours of unpaid clinical experience at a clinical site. Students will be required to travel to the assigned clinical site for 7 weeks to complete rotations in each area of the clinical laboratory.
10. Students must have received a "B-" or better in 806-177 General Anatomy & Physiology before they can enroll in this course.
11. Students must have received a "B-" or better in 806-186 Introduction to Biochemistry before they can enroll in this course.
12. Students must have received a "B-" or better in 806-197 Microbiology before they can enroll in this course.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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## Medical Laboratory Technician (10-513-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*513-110	1	Basic Lab Skills	Prereq: Program Admission	F
1	*513-111	2	Phlebotomy	Prereq: Program Admission	F
1	*513-113	1	🎓 QA Lab Math		F
1	806-177	4	General Anatomy and Physiology <sup>1,3,8</sup>		F
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S
2	806-186	4	🎓 Introduction to Biochemistry	Prereq: 806-134 OR 806-177 OR 806-209 OR 806-212	S
3	801-196 OR 801-198	3	Oral/Interpersonal Communication OR Speech <sup>3</sup>		SU
3	806-197	4	🎓 Microbiology <sup>1,3</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	SU
4	*513-120	3	Basic Hematology <sup>10</sup>	Prereq: 806-177; Advisor Consent	F
4	*513-133	4	Clinical Microbiology <sup>12</sup>	Prereq: 806-197; Advisor Consent	F
5	*513-109	4	Blood Bank	Prereq: Instructor Consent	S
5	*513-121	1	Coagulation	Prereq: 513-120	S
5	*513-130	2	Advanced Hematology	Prereq: 513-120	S
6	809-166	3	Ethics: Theory & Applications, Intro to <sup>1</sup>	Prereq: 838-105 OR 851-757	SU
6	809-198	3	Psychology, Introduction to <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU
7	*513-114	2	Urinalysis <sup>10</sup>	Prereq: 806-177; Advisor Consent	F
7	*513-116	4	Clinical Chemistry <sup>11</sup>	Prereq: 806-186; Advisor Consent	F
8	*513-115	2	Basic Immunology Concepts <sup>10</sup>	Prereq: 806-177; 806-197	S
8	*513-140	2	Advanced Microbiology	Prereq: 513-133	S
8	*513-170	2	Introduction to Molecular Diagnostics	Prereq: 513-116	S
9	*513-151	3	Clinical Experience I	Prereq: 513-114; 513-115; 513-116; 513-120; 513-133	SU
9	*513-152	4	Clinical Experience II <sup>6,2,9</sup>	Prereq: 513-151	SU

**Minimum Program Total Credits Required: 62**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Medical Laboratory Technician (10-513-1)

At career entry, the medical laboratory technician/medical laboratory technician will be able to perform routine clinical laboratory tests (such as hematology, clinical chemistry, immunohematology, microbiology, serology/immunology, coagulation, molecular, and other emerging diagnostics) as the primary analyst making specimen-oriented decisions on predetermined criteria, including a working knowledge of critical values. Communications skills will extend to frequent interactions with members of the healthcare team, external relations, customer service and patient education. The level of analysis ranges from waived and point of care testing to complex testing encompassing all major areas of the medical laboratory. The medical laboratory technician will have diverse functions in areas of preanalytical, analytical, post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training, and quality control monitoring wherever medical laboratory testing is performed.

### Program Learning Outcomes

Graduates will be able to:

1. Practice laboratory safety and regulatory compliance.
2. Collect and process biological specimens.
3. Monitor and evaluate quality control in the laboratory.
4. Apply modern clinical methodologies including problem solving and trouble shooting according to predetermined criteria.
5. Perform information processing in the clinical laboratory.
6. Model professional behaviors, ethics and appearance.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading and writing placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.

### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Must be completed to be eligible to take the MLT (ASCP) exam.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students are selected based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information. Students must meet current petition requirements at the time they are eligible to enroll in 513 courses.
5. A liability insurance fee per semester is required.
6. A physical examination and immunization are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance.
7. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager and/or Drug Testing.
8. Course 806-151 Supplemental Chemistry for Healthcare is a recommended course to provide supplemental chemistry and math knowledge that is needed for this program.
9. Students must complete 288 hours of unpaid clinical experience at a clinical site. Students will be required to travel to the assigned clinical site for 7 weeks to complete rotations in each area of the clinical laboratory.
10. Students must have received a "B-" or better in 806-177 General Anatomy & Physiology before they can enroll in this course.
11. Students must have received a "B-" or better in 806-186 Introduction to Biochemistry before they can enroll in this course.
12. Students must have received a "B-" or better in 806-197 Microbiology before they can enroll in this course.

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## Nursing – Associate Degree (10-543-1)

Associate of Applied Science

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha, R-D = Racine/days, E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D	R-D
1	890-155	1	Gateway to Success (G2S)		F/S/SU	F/S/SU	F/S/SU
1	§*806-177	4	General Anatomy and Physiology <sup>5,9</sup>		F/S/SU	F/S/SU	F/S/SU
1	§801-136	3	English Composition <sup>12,9</sup>	Prereq: 831-103 OR 851-757	F/S/SU	F/S/SU	F/S/SU
1	§809-188	3	Psychology, Developmental <sup>2,9</sup>	Prereq: 838-105 OR 851-757	F/S/SU	F/S/SU	F/S/SU
1	§801-198	3	Speech <sup>9</sup>		F/S/SU	F/S/SU	F/S/SU
2	§*543-101	2	Nursing Fundamentals <sup>1,5</sup>	Prereq: Program Admission; Advisor Consent; 806-177; Coreq: 801-136	F/S/SU	F/S	F/S/SU
2	§*543-102	3	Nursing Skills <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S/SU	F/S	F/S/SU
2	§*543-103	2	Nursing Pharmacology <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S/SU	F/S	F/S/SU
2	§*543-104	2	Nsg: Intro Clinical Practice <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177; Coreq: 543-101; 543-102; 543-103	F/S/SU	F/S	F/S/SU
2	*806-179	4	Anatomy & Physiology, Adv. <sup>8,9</sup>	Prereq: 806-177	F/S/SU	F/S	F/S/SU
3	§*543-105	3	Nursing Health Alterations	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; 801-136	F/S/SU	S/F	F/S/SU
3	§*543-106	3	Nursing Health Promotion	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; 809-188; 801-136	F/S/SU	S/F	F/S/SU
3	§*543-107	2	Nsg: Clin Care Across Lifespan	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; Coreq: 543-106	F/S/SU	S/F	F/S/SU
3	§*543-108	2	Nsg: Intro Clinical Care Mgt.	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; Coreq: 543-105	F/S/SU	S/F	F/S/SU
3	809-198	3	Psychology, Introduction to <sup>2,9</sup>	Prereq: 838-105 OR 851-757	F/S/SU	S/F	F/S/SU
4	*543-109	3	Nursing Complx Health Alter I <sup>8</sup>	Prereq: Program Admission; 543-105; 543-106; 543-107; 543-108; 806-179; Coreq: 806-197	F/S/SU	F/S	F/S/SU
4	*543-110	2	Nursing Mental Health Comm <sup>8</sup>	Prereq: Program Admission; 543-105; 543-106; 543-107; 543-108; 806-179; Coreq: 809-198	F/S/SU	F/S	F/S/SU
4	*543-111	3	Nursing Intrmdt Clinical <sup>8</sup>	Prereq: Program Admission; 543-105; 543-106; 543-107; 543-108; Coreq: 543-109; 543-110; 543-112	F/S/SU	F/S	F/S/SU
4	*543-112	1	Nursing Advanced Skills <sup>8</sup>	Prereq: Program Admission; 543-105; 543-106; 543-107; 543-108; 806-179	F/S/SU	F/S	F/S/SU
4	*806-197	4	Microbiology <sup>2,7,9</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	F/S/SU	F/S	F/S/SU
5	*543-113	3	Nursing Cmplx Health Alter II	Prereq: Program Admission; 543-109; 543-110; 543-111; 543-112; 806-197	F/S/SU	S/F	F/S/SU
5	*543-114	2	Nursing Management Concepts	Prereq: Program Admission; 543-109; 543-110; 543-111; 543-112	F/S/SU	S/F	F/S/SU
5	*543-115	3	Nursing Advanced Clinical	Prereq: Program Admission; 543-109; 543-110; 543-111; 543-112; Coreq: 543-113; 543-114	F/S/SU	S/F	F/S/SU
5	*543-116	2	Nursing Clinical Trans.	Prereq: Program Admission; 543-109; 543-110; 543-111; 543-112; Coreq: 543-113; 114; 115	F/S/SU	S/F	F/S/SU
5	809-196	3	Sociology, Introduction to <sup>2,9</sup>	Prereq: 838-105 OR 851-757	F/S/SU	S/F	F/S/SU

**Minimum Program Total Credits Required: 66**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Nursing – Associate Degree (10-543-1)

*Nursing-Associate Degree* program is the dynamic interpersonal goal-directed process that seeks to promote optimal health within the context of individuals, family, community and society. The concept of caring, which is central to nursing, is communicated through both attitude and action. Nursing uses the nursing process, a problem solving approach to provide holistic care to individuals, families, and groups within the health care system. Nurses assess health and make clinical decisions to provide safe and effective nursing care according to standards of practice within legal, ethical and regulatory frameworks. Nursing practice is based on its own body of knowledge. Through collaboration with other health care professionals, nursing is responsive to the needs of the community across the health-illness continuum. The program may be completed in two academic years of full-time study. Individuals who are Licensed Practical Nurses should contact Gateway for information regarding advanced standing opportunities.

### Program Learning Outcomes

Graduates will be able to:

1. Integrate professional nursing identity reflecting integrity, responsibility and nursing standards.
2. Communicate comprehensive information using multiple sources in nursing practice.
3. Integrate theoretical knowledge to support decision making.
4. Integrate the nursing process into patient care across diverse populations.
5. Function as a healthcare team member to provide safe and effective care.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.
4. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated on all available evidence provided to the college.
5. Students must view the Nursing Information Video online and submit the corresponding electronic form verifying understanding of information presented.

### Graduation Requirements

1. Minimum 66 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. § Must be completed to be eligible to take the NCLEX-PN exam.
4. Complete 890-155 Gateway to Success (G2S) in the first semester. Gateway credits may transfer to colleges and universities offering adv. nurse ed. programs.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students are selected based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information. Students must meet current petition requirements at the time they are eligible to enroll in 543 courses.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A liability insurance fee per semester is required.
4. A physical examination and immunization are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance.
5. Beginning in January 2015, students must have received a "B-" or better in 806-177 General Anatomy & Physiology before they can enroll in this course.
6. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
7. It is preferred that students in this program complete 806-177 as the prereq for this course.
8. Beginning in May 2016, students must have received a "B-" or better in 806-179 Anatomy and Physiology, Advanced before they can enroll in this course.
9. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
10. The core 543 nursing courses require students to have a laptop computer available for use in the classroom. The computer must meet minimum MS Windows laptop specifications - see your advisor for details.
11. Students must have completed 543-300 or equivalent of certified nursing assistant course prior to admission into program.

### Accreditation Statement

The Nursing program is fully accredited by the Accreditation Commission for Education in Nursing; 3390 Peachtree Rd NE Suite #1400, Atlanta, GA 30326. For more information, call (404) 975-5000.

**Eligibility for Licensure Exam:** Student must be a graduate of a state-approved school, be a U.S. citizen, or submit proof of intention to become a citizen or a permanent resident alien.

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## Nursing – Associate Degree (10-543-1)

### Associate of Applied Science





### Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.


Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).


**K-E = Kenosha/evenings, R-D Racine/days, E-D Elkhorn/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E	R-D	E-D
1	890-155	1	 Gateway to Success (G2S)		F/S	F/S/SU	F/S
1	§801-136	3	English Composition 1 <sup>2,9</sup>	Prereq: 831-103 OR 851-757	F/S	F/S/SU	F/S
1	§*806-177	4	General Anatomy and Physiology <sup>5,9</sup>		F/S	F/S/SU	F/S
2	§*543-101	2	 Nursing Fundamentals <sup>1,5</sup>	Prereq: Program Admission; Advisor Consent; 806-177; Coreq: 801-136	F/S	F/S/SU	F/S
2	§*543-103	2	 Nursing Pharmacology <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S	F/S/SU	F/S
2	809-188	3	Psychology, Developmental	Prereq: 838-105 OR 851-757	F/S	F/S/SU	F/S
3	§*543-102	3	Nursing Skills <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S	F/S/SU	F/S
3	§*543-104	2	Nsg: Intro Clinical Practice <sup>1,5,9</sup>	Prereq: Program Admission; Advisor Consent; 806-177; Coreq: 543-101; 543-102; 543-103	F/S	F/S/SU	F/S
3	*806-179	4	Anatomy & Physiology, Adv. <sup>8,9</sup>	Prereq: 806-177	F/S	F/S/SU	F/S
4	§*543-106	3	Nursing Health Promotion	Prereq: 543-101; 543-102, 543-103; 543-104; 809-188; 801-136	F/S	F/S/SU	F/S
4	§*543-107	2	Nsg: Clin Care Across Lifespan	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; Coreq: 543-106	F/S	F/S/SU	F/S
5	§*543-105	3	 Nursing Health Alterations	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; 801-136	F/S	F/S/SU	F/S
5	§*543-108	2	Nsg: Intro Clinical Care Mgt.	Prereq: Program Admission; 543-101; 543-102; 543-103; 543-104; Coreq: 543-105	F/S	F/S/SU	F/S
5	*806-197	4	Microbiology <sup>2,7,9</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	F/S	F/S/SU	F/S
6	*543-109	3	Nursing Complx Health Alter <sup>8</sup>	Prereq: Program Admission; 543-105;106; 107; 543-108; 806-179; Coreq: 806-197	F/S	F/S/SU	F/S
6	*543-112	1	Nursing Advanced Skills <sup>8</sup>	Prereq: Program Admission; 543-105;106;107; 543-108; 806-179	F/S	F/S/SU	F/S
6	809-198	3	Psychology, Introduction to <sup>2,9</sup>	Prereq: 838-105 OR 851-757	F/S	F/S/SU	F/S
7	*543-110	2	Nursing Mental Health Comm <sup>8</sup>	Prereq: Program Admission; 543-105;106;107; 108; 806-179; Coreq: 809-198	F/S	F/S/SU	F/S
7	*543-111	3	Nursing Intrmtd Clinical <sup>8</sup>	Prereq: Program Admission; 543-105;106;107; 108; Coreq: 543-109; 543-110; 543-112	F/S	F/S/SU	F/S
7	§801-198	3	Speech <sup>9</sup>		F/S	F/S/SU	F/S
8	*543-113	3	Nursing Cmplx Health Alter II	Prereq: Prog. Admission; 543-109;110;111; 543-112; 806-197	F/S	F/S/SU	F/S
8	*543-114	2	Nursing Management Concepts	Prereq: Prog. Admission; 543-109;110;111;112	F/S	F/S/SU	F/S
8	809-196	3	Sociology, Introduction to <sup>2,9</sup>	Prereq: 838-105 OR 851-757	F/S	F/S/SU	F/S
9	*543-115	3	Nursing Advanced Clinical	Prereq: Program Admission; 543-109;110;111; 543-112; Coreq: 543-113;114	F/S	F/S/SU	F/S
9	*543-116	2	Nursing Clinical Trans.	Prereq: Program Admission; 543-109;110;111; 112; Coreq: 543-113; 543-114; 543-115	F/S	F/S/SU	F/S

**Minimum Program Total Credits Required: 66**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

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 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

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### Program Learning Outcomes

Graduates will be able to:

1. Integrate professional nursing identity reflecting integrity, responsibility and nursing standards.
2. Communicate comprehensive information using multiple sources in nursing practice.
3. Integrate theoretical knowledge to support decision making.
4. Integrate the nursing process into patient care across diverse populations.
5. Function as a healthcare team member to provide safe and effective care.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

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- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.
5. Students must view the Nursing Information Video online and submit the corresponding electronic form verifying understanding of information presented.

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### Graduation Requirements

1. Minimum 66 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. § Must be completed to be eligible to take the NCLEX-PN exam.
4. Complete 890-155 Gateway to Success (G2S) in the first semester.

Gateway credits may transfer to colleges and universities offering adv. nurse ed. programs.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students are selected based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information. Students must meet current petition requirements at the time they are eligible to enroll in 543 courses.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A liability insurance fee per semester is required.
4. A physical examination and immunization are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance.
5. Beginning in January 2015, students must have received a "B-" or better in 806-177 General Anatomy & Physiology before they can enroll in this course.
6. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
7. It is preferred that students in this program complete 806-177 as the prereq for this course.
8. Beginning in May 2016, students must have received a "B-" or better in 806-179 Anatomy and Physiology, Advanced before they can enroll in this course.
9. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
10. The core 543 nursing courses require students to have a laptop computer available for use in the classroom. The computer must meet minimum MS Windows laptop specifications - see your advisor for details.
11. Students must have completed 543-300 or equivalent of certified nursing assistant course prior to admission into program.

### Accreditation Statement

The Nursing program is fully accredited by the Accreditation Commission for Education in Nursing; 3390 Peachtree Rd NE Suite #1400, Atlanta, GA 30326. For more information, call (404) 975-5000.

**Eligibility for Licensure Exam:** Student must be a graduate of a state-approved school, be a U.S. citizen, or submit proof of intention to become a citizen or a permanent resident alien.



## Paramedic Technician (10-531-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HE-D = HERO Center/days, HE-E = HERO Center/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D	HE-E
1	890-155	1	Gateway to Success (G2S)		SU+	SU+
1	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	SU+	SU+
1	*531-911	2	EMS Fundamental <sup>1,2,6</sup>	Prereq: 838-105 OR 851-757; Program Admission	SU	SU
2	*531-912	4	Paramedic Medical Principles <sup>6</sup>	Coreq: 531-911	F	F
2	*531-913	3	Adv. Patient Asses. Principles <sup>6</sup>	Coreq: 531-911	F	F
2	*531-914	3	Adv. Pre-Hospital Pharmacology <sup>6</sup>	Coreq: 531-911	F	F
2	*531-915	2	Paramedic Respiratory Mgt. <sup>6</sup>	Coreq: 531-914	F	F
2	*531-925	4	Paramedic HPS Lab <sup>6</sup>	Coreq: 531-912	F	F
2	*531-926	1	Paramedic Hospital Field <sup>3,4,6</sup>	Coreq: 531-912	F	F
2	*531-955	2	Paramedic Cardiology <sup>1,6</sup>	Coreq: 531-915	F	F
3	*531-956	2	Paramedic Cardiology <sup>2,6</sup>	Prereq: 531-955	S	S
3	*531-918	1	Adv. Emergency Resuscitation <sup>6</sup>	Coreq: 531-955	S	S
3	*531-919	4	Paramedic Medical Emergencies <sup>6</sup>	Coreq: 531-955	S	S
3	*531-920	3	Paramedic Trauma <sup>6</sup>	Coreq: 531-955	S	S
3	*531-921	3	Special Patient Populations <sup>6</sup>	Coreq: 531-955	S	S
3	*531-922	1	EMS Operations <sup>6</sup>	Coreq: 531-955	S	S
3	*531-923	1	Paramedic Capstone <sup>6</sup>	Coreq: 531-955	S	S
3	*531-927	2	Paramedic Hospital Field II <sup>3,4,6</sup>	Coreq: 531-955	S	S
4	801-136	3	English Composition 1 <sup>1,7</sup>	Prereq: 831-103 OR 851-757	SU+	SU+
4	801-196	3	Oral/Interpersonal Communication		SU+	SU+
	<b>OR</b>	<b>3</b>	<b>OR</b>			
	801-198	3	Speech		SU+	SU+
4	806-177	4	General Anatomy and Physiology <sup>6</sup>		SU+	SU+
4	809-198	3	Psychology, Introduction to <sup>1,6</sup>	Prereq: 838-105 OR 851-757	SU+	SU+
5	806-179	4	Anatomy & Physiology, Advanced <sup>6</sup>	Prereq: 806-177	F+	F+
5	809-166	3	Ethics: Theory & Applications, Intro to <sup>1</sup>		F+	F+
	<b>OR</b>	<b>3</b>	<b>OR</b>	Prereq: 838-105 OR 851-757		
	809-172	3	Diversity Studies, Introduction to <sup>1</sup>		F+	F+
5	809-188	3	Psychology, Developmental <sup>1</sup>	Prereq: 838-105 OR 851-757	F+	F+
	<b>OR</b>	<b>3</b>	<b>OR</b>			
	809-159	3	Psychology, Abnormal <sup>1</sup>	Prereq: 809-198	F+	F+

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Paramedic Technician (10-531-1)

*Paramedic Technician* requires students to be licensed in Wisconsin at the Emergency Medical Technician (EMT), Advanced EMT (EMT Intermediate Technician), or EMT Intermediate level and be current in Healthcare Provider CPR. Paramedics can perform more acute care and administer advanced drug therapies. They can also perform surgical procedures to open airways and provide resuscitative drugs. Paramedics have an increased knowledge of lifesaving skills as well as advanced emergency assessment expertise. At the end of the program, students will take a final Gateway Technical College written and practical exam, and after successful completion students will be eligible to test and credential through the National Registry of Emergency Medical Technicians®. The program includes approximately 650 hours of classroom lecture and skills lab, and approximately 500 hours of supervised hospital clinical and field time. Satisfactory completion of clinical/field time is competency based so actual number of hours may vary from student to student. Graduates of this program can expect to find employment with private ambulance companies, fire departments, or hospital emergency rooms. Students finishing the first two semesters of the program (the 531 courses) are eligible to receive the Paramedic Technical Diploma (31-531-1). All courses in the EMT-Paramedic diploma program can be applied to the Paramedic Technician associate degree.

### Program Goal

To prepare competent entry-level Emergency Medical Technician-Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with or without exit points at the Emergency Medical Technician-Intermediate and/or Emergency Medical Technician-Basic, and/or First Responder levels.

### Program Learning Outcomes

Graduates will be able to:

1. Prepare for incident response and EMS operations.
2. Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
3. Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
4. Communicate effectively with others.
5. Demonstrate professional behavior.
6. Meet state and national competencies listed for paramedic credentialing.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must have current CPR certification.
4. Students must have current Wisconsin EMS licensure.

## Graduation Requirements

1. Minimum 65 credits with a cumulative GPA of 2.0 or above.
  2. \*Minimum of 2.0 ("C") or above for these major courses.
  3. Complete 890-155 Gateway to Success (G2S) in the first semester.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Prior to enrolling in paramedic level courses, a student must satisfactorily complete an EMS specific pre-admission screening which includes both written and practical components at the Emergency Medical Technician level (EMT) and attend an informational orientation with the program staff.
3. Drug testing and immunizations are required prior to admission to the first clinical course (531-926 or 531-927).
4. Applicants of this program are subject to a review of their criminal backgrounds as part of the training center training permit process. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College.
5. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. Paramedic students must attend an informational orientation with the program staff before the start of the program.
8. It is recommended that applicants re-enroll in the Paramedic program within one year of exiting due to possible curriculum changes and degradation of skill competency/knowledge.
9. COVID-19 policy at field and clinical sites are subject to change at the discretion of the sites themselves. Paramedic program students must abide by field and clinical site COVID-19 policies while participating in clinical field time at these sites.

## Accreditation Statement

The EMT Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs  
25400 US Highway 19 N., Suite 158  
Clearwater, FL 33763  
727-210-2350  
[www.caahep.org](http://www.caahep.org)

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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## Physical Therapist Assistant (10-524-1)

Associate of Applied Science




**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*


*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*


**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	 Gateway to Success (G2S)		F/S/SU
1	*806-177	4	 General Anatomy & Physiology <sup>6,7</sup>		F/S/SU
1	801-136	3	English Composition 1 <sup>2,6,7</sup>	Prereq: 831-103 OR 851-757	F/S/SU
1	801-196	3	Oral/Interpersonal Communication <sup>8</sup>		F/S/SU
1	809-198	3	Psychology, Introduction to <sup>2,6,8</sup>	Prereq: 838-105 OR 851-757	F/S/SU
2	*524-156	4	 PTA Applied Kinesiology 1 <sup>3</sup>	Prereq: Instructor Consent; 801-136	F
2	*524-139	4	PTA Patient Interventions <sup>3</sup>	Prereq: Instructor Consent	F
2	*524-140	2	PTA Professional Issues 1 <sup>3</sup>	Prereq: Instructor Consent	F
2	*524-143	4	PTA Biophysical Agents <sup>3</sup>	Prereq: Instructor Consent Coreq: 524-139	F
3	*524-157	3	PTA Applied Kinesiology 2	Prereq: 524-156	S
3	*524-147	2	PTA Clinical Practice 1 <sup>5</sup>	Coreq: 524-143; 524-157	S
3	*524-142	3	PTA Therapeutic Exerc.	Prereq: 806-177; Coreq: 524-156	S
3	*524-145	4	PTA Principles of Musculoskeletal Rehab.	Prereq: 524-139; Coreq: 524-142; 524-157	S
4	*524-144	4	PTA Princ of Neuro Rehab.	Prereq: 524-139; 524-142; 524-157	F
4	*524-146	3	PTA Cardio & Integ Mgmt	Prereq: 524-139; 524-142; 524-157	F
4	*524-148	3	PTA Clinical Practice 2 <sup>5</sup>	Prereq: 524-147	F
4	809-188	3	Psychology, Developmental <sup>2,6,8</sup>	Prereq: 838-105 OR 851-757	F
5	*524-149	2	PTA Rehabilitation Across the Lifespan	Prereq: 524-144; 524-145; 524-148 Coreq: 524-146	S
5	*524-150	2	PTA Professional Issues 2	Prereq: 524-140; Coreq: 524-148	S
5	*524-151	5	PTA Clinical Practice 3 <sup>5</sup>	Prereq: 524-144; 524-145; 524-146; 524-148	S
5	809-172	3	Diversity Studies, Introduction to <sup>2,8</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 65**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Physical Therapist Assistant (10-524-1)

*Physical Therapist Assistant* is a health profession with the primary purpose of promoting optimal human health and function through the application of scientific principles to prevent, identify, assess, correct, or alleviate acute or prolonged movement dysfunction. The physical therapist assistant (PTA) is a technical health care worker who carries out many patient treatments under the supervision of a physical therapist. PTAs find employment in clinics, hospitals, nursing homes, rehabilitation centers, home care agencies, schools, private health and fitness centers, and other settings.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate clear and collaborative communication with patients, families, and health care team.
2. Exhibit behaviors and conduct that reflect respect and sensitivity according to PT practice standards.
3. Function under the supervision of a physical therapist in a safe, legal, professional, and ethical manner to ensure the safety of patient, self and others throughout the clinical interaction.
4. Produce documentation to support the delivery physical therapy services.
5. Demonstrate critical thinking skills to implement and modify treatment within a plan of care under the direction and supervision of a physical therapist.
6. Perform data collection essential for carrying out the plan of care under the direction and supervision of the physical therapist.
7. Perform technically competent, evidence based physical therapy interventions under the direction and supervision of the physical therapist.
8. Educate patients, families, and other health providers.
9. Integrate components of operational and fiscal practices of physical therapy service in a variety of settings.
10. Implement a self-directed plan for career development, credentialing, and lifelong learning.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.

### Graduation Requirements

- Minimum 65 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. This program may require additional fee(s) for: Criminal background Check, Medical Document Manager, and/or Drug Testing.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. This program uses a petition process for clinical/practicum/program courses. Students are selected based on completion of academic eligibility requirements and district residency status. See [gtc.edu/petitioning](http://gtc.edu/petitioning) on the website for additional information.
4. CPR certification must be obtained and maintained. See advisor for specific requirements.
5. The grading system for the following courses will be pass/fail: 524-147 PTA Clinical Practice 1, 524-148 PTA Clinical Practice 2, and 524-151 PTA Clinical Practice 3.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. This course must be completed prior to petitioning. See "What is Petitioning?" on the website or an advisor for additional information.
8. Students may take this course while waiting to petition. See "What is Petitioning?" on the website or an advisor for additional information.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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## Radiography (10-526-1) Shared Program with LTC Associate of Applied Science Effective 2024/2025

### Radiography (10-526-1)

*This is a shared program with Lakeshore Technical College (LTC).*  
Radiography prepares individuals for a career in diagnostic radiology (x-ray) as a radiographer. The radiographer is a technologist who produces images of the human body to aid physicians in the diagnosis of injuries and diseases. Graduates of the program are eligible to take the entry-level certification examination administered by the American Registry of Radiography Technologists (ARRT) and may obtain employment in x-ray departments associated with hospitals, medical clinics, veterinary clinics, and private offices.

Program curriculum focuses on theoretical and applied radiography and includes a clinical experience in a radiographic department. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students learn to use x-ray imaging machines to demonstrate body parts on x-ray films for diagnostic purposes, including diagnostic radiology, bedside and trauma procedures, pediatric radiography, and special procedures.

### Program Requirements

Consult the LTC website for program and admission requirements at <https://gotoltc.edu/programs-and-courses/degree-programs/radiography>

### Graduation Requirements

Consult the LTC website for graduation requirements at <https://gotoltc.edu/index.html>.

### Program Admission Requirements

#### To be completed with Lakeshore Technical College

1. Submit online application by visiting <https://gotoltc.edu/>.
2. Complete the background check and \$20 processing fee.
3. Complete the Student Success Questionnaire.
4. Complete the Technical Standards form.
5. Watch the Radiography informational video prior to your program Counseling Session.
6. Schedule your First Time Program Counseling/Registration session with your assigned program counselor.

For questions with the Admissions steps at Lakeshore Technical college please visit [gotoltc.edu](https://gotoltc.edu) or contact 920-693-1162 or [admissions@gotoltc.edu](mailto:admissions@gotoltc.edu).

AND

#### To be completed with Gateway Technical College

1. Submit a free program application with Gateway Technical College at [gtc.edu/apply](https://gtc.edu/apply)
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading and writing placement assessments; or earned technical diploma or higher. Transcripts or test scores can be submitted to Gateway.
3. 3. Students must complete a Release of Information Form to allow GTC to share academic and student record information with LTC.

\*For assistance with steps at Gateway Technical College please contact 800-247-7122 or [newstudentspecialists@gtc.edu](mailto:newstudentspecialists@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

### Program Learning Outcomes

Graduates will be able to:

1. Carryout the production and evaluation of radiographic images.
2. Practice radiation safety principles.
3. Provide quality patient care.
4. Model professional and ethical behavior consistent with the A.R.R.T. Code of Ethics.
5. Apply critical thinking and problem-solving skills in the practice of diagnostic radiography.

### Gateway Course Requirements

Students choosing the shared Radiography program at Gateway are able to complete all required credits towards the degree at LTC. All courses will satisfy program requirements in the Radiography program under the shared agreement as long as minimum requirements have been met. Consult the LTC website for requirements at <https://gotoltc.edu/programs-and-courses/degree-programs/radiography>

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Students will be admitted through the program and receive financial aid through LTC. To apply visit <https://gotoltc.edu/how-to-apply/index.html>
4. Students completing the shared program will receive their degree from LTC.
5. Courses are provided by LTC via Video Conferencing.
6. Courses are provided by off-site Health Care centers.
7. This is a high demand program with limited seats. Students are selected by Lakeshore Technical College based on completion of academic eligibility requirements and district residency. Students must meet current petition requirements at the time they are eligible to enroll in core program courses
8. Health requirements and immunization records are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance. Students are responsible for the cost of immunizations.
9. As the student progresses through the program, a variety of clinical hours are provided to ensure the student a variety of exposure including evenings, weekends, and summer clinical assignments. Beginning with the radiography clinical practice 2 course, students will be scheduled for one PM assignment per week on a rotational basis. Students may not be assigned to more than 40 hours per week or more than 10 hours a day. The clinical coordinator will assign a day off the week that you are assigned to a weekend shift. Students must complete the designated number of weekend shifts for the specific course to complete the objective for clinical experience.





**Radiography (10-526-1)**  
**Shared Program with LTC**  
 Associate of Applied Science  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine/days, FA=Fall, SP=Spring, SU=Summer**

Term	Course Number	Course Title	Credits	Requisites
1 – FA	501-101	Medical Terminology <sup>1,2</sup>	3	Prereq: 838-105
1 – FA	806-134	General Chemistry	4	
1 – FA	806-177	General Anatomy and Physiology	4	
2 – SP	*526-149	Radiographic Procedures 1	5	Prereq: 806-177 Coreq: 526-158; 526-159; 526-168
2 – SP	*526-158	Introduction to Radiography <sup>5</sup>	3	Prereq: 806-177 Coreq: 526-149; 526-159; 526-168
2 – SP	*526-159	Radiographic Imaging <sup>5</sup>	3	Prereq: 806-177 Coreq: 526-149; 526-158; 526-168
2 – SP	*526-168	Radiography Clinical 1 <sup>6</sup>	2	Prereq: 806-177 Coreq: 526-149; 526-158; 526-159
3 – SU	*526-192	Radiography Clinical 2 <sup>6</sup>	3	Prereq: 526-149; 526-158; 526-159; 526-168 Coreq: 526-230; 526-191
4 – FA	*526-230	Advanced Radiographic Imaging <sup>5</sup>	2	Prereq: 526-149; 526-158; 526-159; 526-168 Coreq: 526-191; 526-192
4 – FA	*526-191	Radiographic Procedures 2 <sup>5</sup>	5	Prereq: 526-149; 526-158; 526-159; 526-168 Coreq: 526-230; 526-192
4 – FA	*526-193	Radiography Clinical 3 <sup>6</sup>	3	Prereq: 526-230; 526-191; 526-192
4 – FA	801-196	Oral/Interpersonal Communication	3	
5 – SP	*526-194	Imaging Equipment Operations <sup>5</sup>	3	Prereq: 526-193 Coreq: 526-231; 526-199
5 – SP	*526-231	Imaging Modalities <sup>5</sup>	2	Prereq: 526-193 Coreq: 526-194; 526-199
5 – SP	*526-199	Radiography Clinical 4 <sup>6</sup>	3	Prereq: 526-193 Coreq: 526-194; 526-231
5 – SP	*526-189	Radiographic Pathology <sup>5</sup>	1	Prereq: 526-199 Coreq: 526-174; 526-190; 526-195; 526-197
5 – SP	809-198	Introduction to Psychology <sup>1,2</sup>	3	Prereq: 838-105 OR 851-757
6 – SU	*526-190	Radiography Clinical 5 <sup>6</sup>	2	Prereq: 526-199 Coreq: 526-174; 526-189; 526-195; 526-197
6 – SU	801-136	English Composition 1 <sup>1</sup>	3	Prereq: 838-105 OR 851-757
7 – FA	*526-174	ARRT Certification Seminar <sup>5</sup>	2	Prereq: 526-199 Coreq: 526-189; 526-190; 526-195
7 – FA	*526-195	Radiographic Image Analysis <sup>5</sup>	2	Prereq: 526-199 Coreq: 526-174; 526-189; 526-190; 526-197
7 – FA	*526-197	Radiation Protection & Biology <sup>5</sup>	3	Prereq: 526-199 Coreq: 526-174; 526-189; 529-190; 526-195
7 – FA	*526-198	Radiography Clinical 6 <sup>6</sup>	2	Prereq: 526-190
7 – FA	809-196	Introduction to Sociology <sup>1,2</sup>	3	Prereq: 838-105 OR 851-757

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of this sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Small Business Entrepreneurship (10-145-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*145-123	3	Intrapreneurial Mindset		F
1	*196-191	3	Supervision <sup>2</sup>		F
1	103-143	3	Computers for Professionals <sup>2</sup>		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*101-112	3	Accounting for Business		S
	<b>OR</b>	<b>OR</b>			
	*101-114	4	Accounting Principles <sup>2</sup>		
2	*104-137	3	Digital Marketing		S
2	*145-119	3	Entrepreneurship		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	*101-128	3	QuickBooks Online <sup>2</sup>	Coreq: 101-114 OR 101-112	SU
3	801-196	3	Oral/Interpersonal		SU
	<b>OR</b>	<b>OR</b>	Communication		
	801-198	3	Speech <sup>2</sup>		
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*102-160	3	Business Law <sup>2</sup>		F
4	*104-133	3	Social Media Strategies		F
4	*145-106	3	Entrepreneurship 3 – Operations MGMT		F
4	*145-120	3	Business Planning and Development	Prereq: 145-119	F
4	*196-193	3	Human Resource Management		F
5	*104-104	3	Selling Principles		S
5	*145-121	3	Small Business Ownership	Coreq: 145-120	S
5	*145-122	3	Financial Management for Entrepreneurs	Prereq: 101-154; 804-135; 801-136	S
5	809-195	3	Economics <sup>1,2</sup>		S
	<b>OR</b>	<b>OR</b>		Prereq: 838-105 OR 851-757	
	809-143	3	Microeconomics <sup>1,2</sup>		

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Small Business Entrepreneurship (10-145-1)

This program is for anyone who wants to start a new business, working on a side hustle, or wants to be a part of the development team of an existing company. The coursework will introduce how to think and act like an entrepreneur and how to apply these values to a variety of different organizations. You will learn the business planning process, day-to-day operations, financial management and the steps to start a business. Students will also master how to use digital marketing tools, manage staff, and oversee the financials of an organization.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate an entrepreneurial and leadership skills.
2. Develop a business plan.
3. Perform marketing functions to meet small business goals.
4. Develop a small business operational plan.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments

### Graduation Requirements

- Minimum 61 credits a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

Gateway Technical College's Small Business Entrepreneurship program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

Accreditation Council for Business Schools and Programs (ACBSP)  
11520 West 119th Street  
Overland Park, KS 66213  
Phone: (913) 339-9356  
[www.acbsp.org](http://www.acbsp.org)

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Part-Time Pathway to Success**  
School of Business and Transportation

## Small Business Entrepreneurship (10-145-1)

Associate of Applied Science  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*145-123	3	Intrapreneurial Mindset		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*145-119	3	Entrepreneurship		S
2	103-143	3	Computers for Professionals <sup>2</sup>		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	*101-112	3	Accounting for Business		SU
	OR	OR	OR		
3	*101-114	4	Accounting Principles <sup>2</sup>		SU
	OR	OR	OR		
3	801-196	3	Oral/Interpersonal Communication		SU
3	801-198	3	Speech <sup>2</sup>		SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*104-133	3	Social Media Strategies		F
4	*145-106	3	Entrepreneurship 3 – Operations MGMT		F
4	*196-191	3	Supervision <sup>2</sup>		F
5	*101-128	3	QuickBooks Online <sup>2</sup>	Coreq: 101-114 OR 101-112	S
5	*104-137	3	Digital Marketing		S
5	*145-120	3	Business Planning and Development	Prereq: 145-119	S
6	*104-104	3	Selling Principles		SU
6	*196-193	3	Human Resource Management		SU
6	809-195	3	Economics <sup>1,2</sup>		SU
	OR	OR	OR	Prereq: 838-105 OR 851-757	
6	809-143	3	Microeconomics <sup>1,2</sup>		SU
7	*102-160	3	Business Law <sup>2</sup>		F
7	*145-121	3	Small Business Ownership	Coreq: 145-120	F
7	*145-122	3	Financial Management for Entrepreneurs	Prereq: 101-154; 804-135; 801-136	F

**Minimum Program Total Credits Required: 61**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

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### Small Business Entrepreneurship (10-145-1)

This program is for anyone who wants to start a new business, working on a side hustle, or wants to be a part of the development team of an existing company. The coursework will introduce how to think and act like an entrepreneur and how to apply these values to a variety of different organizations. You will learn the business planning process, day-to-day operations, financial management and the steps to start a business. Students will also master how to use digital marketing tools, manage staff, and oversee the financials of an organization.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate an entrepreneurial and leadership skills.
2. Develop a business plan.
3. Perform marketing functions to meet small business goals.
4. Develop a small business operational plan.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments

### Graduation Requirements

- Minimum 61 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

### Accreditation Statement

Gateway Technical College's Small Business Entrepreneurship program is fully accredited and in good standing with the Accreditation Council for Business Schools and programs [[www.acbsp.org](http://www.acbsp.org)].

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11520 West 119th Street  
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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Supply Chain Management (10-182-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
1	*102-137	3	Intro to Business <sup>2</sup>		F
1	*182-101	3	Supply Chain Management		F
1	*182-102	3	Introduction to Logistics		F
2	101-114	4	Principles of Accounting		S
2	*182-103	3	Global Supply Chain Management	Prereq: 182-101	S
2	*182-115	3	Manufacturing & Robotics, Intro to		S
2	*182-182	3	Transportation Management		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	801-196 <b>OR</b> 801-198	3	Oral/Interpersonal Communications <b>OR</b> Speech <sup>2</sup>		SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*182-106	3	Enterprise Resource Planning and Control	Prereq: 182-101; 804-135; 801-136	F
4	*182-183	3	Distribution Management		F
4	*196-151	3	Operations Management		F
4	*196-133	3	Negotiations		F
5	102-160	3	Business Law <sup>2</sup>		S
5	*182-107 <b>OR</b> *196-188	3	Supply Chain Internship <b>OR</b> Project Management	Prereq: Instructor Consent	S
5	*182-108	3	Purchasing		S
5	*196-190	3	Leadership Development <sup>1,2</sup>		S
5	809-195 <b>OR</b> 809-143	3	Economics <sup>1,2</sup> <b>OR</b> Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	S

**Minimum Program Total Credits Required: 62**

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= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Supply Chain Management (10-182-1)

*Supply Chain Management* is the efficient movement of materials and products including all logistical activities involved in the flow of goods - from point of origin to point of consumption. This program focuses on operations, transportation, procurement and distribution of materials and products. Workers in this field are prepared to analyze and improve processes within their area. Skills in planning, decision making, continuous improvement, problem solving, and leadership will be learned. Possible careers in Supply Chain include manager, claims analyst, customer service representative, dispatcher, inventory analyst, inventory control specialist, logistics technician, materials planner, master production scheduler, purchasing assistant, shipping and receiving specialist, transportation planner/coordinator, warehouse specialist and international logistics technician.

### Program Learning Outcomes

Graduates will be able to:

1. Implement Supply Management practices in a global environment
2. Demonstrate operations management techniques across product and service industries
3. Analyze logistic interfaces and activities in a supply chain
4. Evaluate demand management techniques and customer service policies

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
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### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

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**Part-Time Pathway to Success**  
School of Business and Transportation

## Supply Chain Management (10-182-1)

Associate of Applied Science

**Effective 2024/2025**

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**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*182-101	3	Supply Chain Management		F
1	*182-102	3	Introduction to Logistics		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*102-137	3	Intro to Business <sup>2</sup>		S
2	*182-182	3	Transportation Management		S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	801-196 <b>OR</b> 801-198	3	Oral/Interpersonal Communications <b>OR</b> Speech <sup>2</sup>		SU
3	809-198	3	Psychology, Introduction to <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
4	*182-106	3	Enterprise Resource Planning and Control	Prereq: 182-101; 804-135; 801-136	F
4	*182-183	3	Distribution Management		F
4	*196-151	3	Operations Management		F
5	101-114	4	Principles of Accounting		S
5	*182-103	3	Global Supply Chain Management	Prereq: 182-101	S
5	*182-115	3	Manufacturing & Robotics, Intro to		S
6	809-195 <b>OR</b> 809-143	3	Economics <sup>1,2</sup> <b>OR</b> Microeconomics <sup>1,2</sup>	Prereq: 838-105 OR 851-757	SU
6	*196-190	3	Leadership Development <sup>1,2</sup>		SU
7	102-160	3	Business Law <sup>2</sup>		F
7	*196-133	3	Negotiations		F
8	*182-107 <b>OR</b> *196-188	3	Supply Chain Internship <b>OR</b> Project Management	Prereq: Instructor Consent	S
8	*182-108	3	Purchasing		S

**Minimum Program Total Credits Required: 62**

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Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Supply Chain Management (10-182-1)

*Supply Chain Management* is the efficient movement of materials and products including all logistical activities involved in the flow of goods - from point of origin to point of consumption. This program focuses on operations, transportation, procurement and distribution of materials and products. Workers in this field are prepared to analyze and improve processes within their area. Skills in planning, decision making, continuous improvement, problem solving, and leadership will be learned. Possible careers in Supply Chain include manager, claims analyst, customer service representative, dispatcher, inventory analyst, inventory control specialist, logistics technician, materials planner, master production scheduler, purchasing assistant, shipping and receiving specialist, transportation planner/coordinator, warehouse specialist and international logistics technician.

### Program Learning Outcomes

Graduates will be able to:

1. Implement Supply Management practices in a global environment
2. Demonstrate operations management techniques across product and service industries
3. Analyze logistic interfaces and activities in a supply chain
4. Evaluate demand management techniques and customer service policies

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 62 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Surgical Technology (10-512-1)

Associate of Applied Science  
**Effective 2024/2025**

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**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		SU
1	*806-177	4	General Anatomy & Physiology <sup>1,11</sup>		SU
1	801-196	3	Oral/Interpersonal Communication		SU
1	*501-101	3	Medical Terminology <sup>1,11</sup>	Prereq: 838-105	SU
2	*512-125	4	🎓 Intro to Surgical Technology <sup>10,11</sup>	Prereq: Advisor Consent; 806-177; Coreq: 501-101	F
2	*512-126	4	Surgical Tech Fundamentals 1 <sup>11</sup>	Prereq: Advisor Consent; 806-177; 512-125 Coreq: 501-101	F
2	*512-127	2	Exploring Surgical Issues <sup>11</sup>	Prereq: Advisor Consent; Coreq: 512-125	F
2	*806-179	4	Anatomy and Physiology, Advanced <sup>7, 11</sup>	Prereq: 806-177	F
3	*512-128	4	🎓 Surgical Tech Fundamentals 2 <sup>11</sup>	Prereq: 512-126; 512-125; 512-127; 501-101; Coreq: 806-179; 512-129; 512-130	S
3	*512-129	2	Surgical Pharmacology <sup>11</sup>	Prereq: 512-125; 512-126	S
3	*512-130	2	🎓 Surgical Skills Applications 1 <sup>2,3,9,11</sup>	Prereq: Advisor Consent; 512-125; 512-126; 512-127; Coreq: 512-128; 512-129	S
3	801-136	3	English Composition 1 <sup>1,11</sup>	Prereq: 831-103 OR 851-757	S
4	*806-197	4	Microbiology <sup>1,7,10,11</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	SU
4	809-198	3	Psychology, Introduction to <sup>1,9,11</sup>	Prereq: 838-105 OR 851-757	SU
4	809-196	3	Sociology, Introduction to <sup>1,9,11</sup>	Prereq: 838-105 OR 851-757	SU
5	*512-132	3	Surgical Technology Clinical 1 <sup>2,3, 8,9,11</sup>	Prereq: Advisor Consent; 512-128, 512-129; 512-130; Coreq: 512-131	F
5	*512-131	4	Surgical Interventions 1 <sup>11</sup>	Prereq: 512-128; 512-130; 801-136	F
5	*512-133	3	Surgical Technology Clinical 2 <sup>2,3, 8,9,11</sup>	Prereq: Advisor Consent; 512-129; 512-130; 512-132; Coreq: 512-131	F
6	*512-142	4	Surgical Interventions II <sup>11,13</sup>	Prereq: 512-131; 512-133 Coreq: 512-135; 512-136	S
6	*512-135	3	Surgical Technology Clinical 3 <sup>2,3, 8,9,11</sup>	Prereq: Advisor Consent; 512-131; 512-133; Coreq: 512-142	S
6	*512-136	3	Surgical Technology Clinical 4 <sup>2,3, 8,9, 12</sup>	Prereq: Advisor Consent; 512-135 Coreq: 512-142	S

**Minimum Program Total Credits Required: 66**

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## Surgical Technology (10-512-1)

*Surgical Technology* graduates are allied health professionals who are an integral part of the team of medical practitioners providing surgical care to patients in a variety of settings. The surgical technologist works under medical supervision to facilitate the safe and effective conduct of invasive surgical procedures. This individual works to ensure that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. A surgical technologist possesses expertise in the theory and application of sterile and aseptic technique and combines the knowledge of human anatomy, surgical procedures, and implementation tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

### Program Learning Outcomes

Graduates will be able to:

1. Apply healthcare and technological science principles to the perioperative environment.
2. Maintain principles of sterile technique in the surgical environment.
3. Provide a safe, efficient, and supportive environment for the patient.
4. Prepare the patient, operating room, and surgical team for the preoperative phase.
5. Perform intraoperative case management in the scrub role.
6. Perform postoperative case management.
7. Function as an ethical, legal, and professional member of the healthcare team as determined by governing bodies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.

### Graduation Requirements

- Minimum 66 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A liability fee is assessed on all clinical courses.
3. Clinical sites may require proof of insurance.
4. There is a daily exposure to latex products in this program. Those with latex sensitivity may find exposure to latex impossible to avoid in this environment.
5. Students will be selected for their initial core 512 courses and clinical/practicum/program courses using a petitioning process. Students are selected based on completion of academic eligibility requirements and district residency status. See "What is Petitioning?" on the website for additional information.
6. Students will be required to provide annual tuberculosis test results, proof of immunizations, and a 10 panel drug screen before clinical placements can occur. Additionally, students will be required to remain CPR certified BLS for the HealthCare Provider with American Heart Association during the entire duration of the program.
7. The prereq for this course must have been completed with a minimum grade of "C".
8. Students must complete a total of 120 surgical procedures (80 that are first scrub and 40 second scrub) during the clinical rotation per ARC-STSA requirements.
9. Please note that your program requires additional fee(s) for: Criminal Background Check, Medical Document Manager, and Drug Testing.
10. It is required that students in this program complete 806-177 as the prereq for this course.
11. A credit for prior learning assessment is available for this course. For more information, please contact [gtc.edu/petitioning](http://gtc.edu/petitioning).
12. This course is graded on a Pass/Fail basis.
13. Students must complete the Certified Surgical Technologist exam upon completion of the program which includes an extra fee that the student is required to pay in addition to their normal tuition fees. This exam is an accreditation requirement per ARC-STSA and most employers located in this area require their surgical technology staff to have this certification within a year.
14. The core 512 courses require students to have a laptop computer available for use in the classroom. The computer must meet minimum MS Windows laptop specifications - see your advisor for details.

### Accreditation Statement

The Surgical Technology program is fully accredited by the Commission on Accreditation of Allied Health Education Programs:

9355 – 113<sup>th</sup> St. N. #7709 Seminole, FL 33775

Phone: (727) 210-2350 Fax: (727) 210-2354  
mail@caahep.org

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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## Technical Studies – Journeyworker (10-499-5)

Associate of Applied Science  
Effective 2024/2025

### Technical Studies - Journeyworker (10-499-5)

In response to requests for academic recognition of registered apprenticeship training in the state of Wisconsin, the WTCS provides a TECHNICAL STUDIES – JOURNEYWORKER ASSOCIATE IN APPLIED SCIENCE DEGREE. This degree recognizes the goals, general principles and procedures of the WTCS Credit for Prior Learning Policy (WTCS #323, revised July 2005). The Technical Studies Journeyworker AAS degree is designed to support lifelong learning and accelerate the achievement of individual career goals. Transferability of the Technical Studies portion of the AAS degree to four year institutions will be based on the accepting institution's policies.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Program Requirements

1. For admission, students must meet the following requirements: submit an application and \$30 fee; complete reading, writing, and math placement assessments; and submit official high school, GED, or HSED transcript.
2. Students must possess a Wisconsin Apprenticeship Completion Certificate issued by the Department of Workforce Development-Bureau of Apprenticeship Standards registered program which includes a minimum of 400 hours of prescribed apprentice related instruction in the Wisconsin Technical College System.
3. Complete all prescribed WTCS apprentice related technical instruction. Possession of the DWD-BAS Wisconsin Apprenticeship Completion Certificate AND successful completion of all prescribed coursework fulfills the Technical Studies requirement of the Technical Studies-Journeyworker Associate of Applied Science degree.

### Graduation Requirements

1. 60 Credit Hours
  2. 39 credits Technical Studies courses (awarded as advanced standing)
  3. 21 credits General Studies required from the following:
    - 6 credits Communications
    - 3 credits Social Science
    - 3 credits Behavioral Science
    - 3 credits Mathematics and/or Natural Science
    - 6 credits additional from General Studies area
  4. 25% of the total program credits must be completed at Gateway
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Part-Time Pathway to Success**  
School of Protective and Human Services

## Veterinary Technician (10-091-1)

Associate of Applied Science

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D
1	890-155	1	Gateway to Success (G2S)		F/S
1	806-105	4	Principles of Animal Biology <sup>13</sup>		F/S
1	091-123	2	Veterinary Medical Terminology	Prereq: Program Admission	F/S
2	*091-120	1	Animal Behavior	Prereq: Program Admission	S/SU
2	801-136	3	English Composition <sup>11,13</sup>	Prereq: 831-103 OR 851-757	S/SU
2	806-197	4	Microbiology <sup>2,13</sup>	Prereq: 806-105 OR 806-177 OR 806-196 OR 806-238	S/SU
3	809-166	3	Ethics: Theory and Apps, Intro to <sup>1</sup>	Prereq: 838-105 OR 851-757	SU/F
3	809-198	3	Psychology, Introduction to <sup>1,13</sup>	Prereq: 838-105 OR 851-757	SU/F
3	801-196	3	Oral/Interpersonal Communication		SU/F
3	<b>OR</b> 801-198	<b>OR</b> 3	<b>OR</b> Speech <sup>13</sup>		SU/F
4	*091-101	3	Animal Care and Management	Prereq: Instructor Consent Coreq: 806-105; 091-120	F/S
4	*091-102	3	Veterinary Business Practices	Coreq: 091-101	F/S
5	*091-103	4	Clinical Pathology I for Vet Sciences <sup>11</sup>	Prereq: 091-101; 091-102; 806-105	S/SU
5	*091-105	3	Surgical Procedures I for Vet Sciences	Coreq: 091-103	S/SU
5	*091-107	3	Imaging for Veterinary Sciences	Coreq: 091-103	S/SU
6	*091-104	4	Clinical Pathology II for Vet Sciences	Coreq: 091-108; 806-197	SU/F
6	*091-108	3	Veterinary Pharmacology <sup>1</sup>	Prereq: 834-109; Coreq: 091-110	SU/F
6	*091-110	2	Clinical Skills I for Vet Sciences	Prereq: Instructor Consent	SU/F
7	*091-106	3	Surgical Procedures II for Vet Sciences	Prereq: 091-108; 091-110 Coreq: 091-113	F/S
7	*091-113	3	Anesthesia for Veterinary Technicians	Prereq: 091-108; 091-110; Coreq: 091-106	F/S
7	*091-124	3	Large Animal Care & Medicine	Prereq: 091-108; 091-110	F/S
8	*091-109	2	Lab Animals and Non-Traditional Pets	Prereq: 091-106; 091-113	S/SU
8	*091-114	4	Veterinary Tech. Clinical Internship	Prereq: 091-106; 091-113	S/SU
8	*091-125	2	Diseases of Domestic Animals	Prereq: 091-106; 091-113; 091-124	S/SU

**Minimum Program Total Credits Required: 66**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Veterinary Technician (10-091-1)

In this program, students learn veterinary technical skills such as how to care for and handle animals, provide medical and surgical nursing including anesthesiology and dental prophylaxis, and perform radiography and clinical laboratory procedures. Applicable federal, state, and local law and ethical guidelines are presented to students throughout the program. Students complete clinical work under the direction of certified veterinary technicians and veterinarians.

Graduates will be eligible to take the Veterinary Technician National Exam (VTNE) administered by the Veterinary Examining Board of the Wisconsin Department of Agriculture, Trade, and Consumer Protection. Certified Veterinary Technicians provide professional support to veterinarians in veterinary clinics and hospitals, biological research settings, animal control and humane organizations, zoos, and educational facilities.

### Program Learning Outcomes

Graduates will be able to:

1. Manage veterinary business functions.
2. Integrate all aspects of patient management for anesthetic, surgical, and medical nursing procedures.
3. Produce diagnostic radiographic images.
4. Perform laboratory procedures.
5. Administer prescribed drugs.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### Graduation Requirements

- Minimum 66 credits with a cumulative GPA of 2.0 or above.
- \*Minimum grade of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. It is preferred that students in this program complete 806-105 as the prereq for this course.
3. Students must maintain minimum course grades of "C" or better for all courses marked with an (\*) to remain in the program.
4. A laptop computer, stethoscope, uniform, and other supplies will be needed.
5. Nearly daily exposure to latex and/or animal fur and dander will occur in this program. Those with sensitivities may find exposure impossible to avoid.
6. Immunocompromised individuals should consult their physician before enrollment.
7. Clinical sites are located throughout and potentially outside the district. Students are responsible for their own transportation.
8. Some clinical sites require TB testing and immunizations against tetanus and hepatitis B. Rabies immunization is required.
9. This program is full-time. Students should expect to be in class Monday-Friday 8 am-5 pm.
10. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
11. Students must receive a "B" or better in 806-105 before they can enroll in this course.
12. The prerequisite for 806-197 (806-105 OR 806-177) must have been completed with a "C" or better.
13. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
14. Students are selected for core courses based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information.
15. Students admitted to the program must complete a volunteer shadowing experience in an approved clinical setting prior to registering for a Veterinary Technician course. Documentation requirements will be included in the program admission packet. This is a high demand program with petitioning required. See the program adviser for details.

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**Advanced EMT (30-531-6)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HE-D = HERO Center/days, HE-E = HERO Center/evenings, F=Fall, S=Spring**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D	HE-E
1	*531-327	4	Advanced EMT <sup>1</sup>	Prereq: Program Admission	F	S

**Minimum Program Total Credits Required: 4**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
 (\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Advanced EMT (30-531-6)

If you currently hold a State of Wisconsin licensure as an Emergency Medical Technician (EMT), you can pursue additional training in intravenous access, fluid and medication administration, clinical decision making skills, and patient assessment at this advanced level. Upon completion of the didactic, lab, and clinical components of this program, the participant will be eligible for testing and credentialing through the National Registry of Emergency Medical Technicians®.

### Program Learning Outcomes

Graduates will be able to:

1. Understand the legal liabilities and requirements of professional conduct to operate as an Advanced EMT as outlined in HSS 110 of the Wisconsin Administrative Code.
2. Perform a successful assessment, treatment plan, and packaging for both a trauma and medical patient.
3. Perform cardiac arrest management and airway management of the adult and pediatric patient.
4. Demonstrates the ability to interact with patient with patients in a compassionate and professional manner.
5. Understand and demonstrate safe practice in the administration of approved medications via the enteral and parenteral routes.
6. Integrate the appropriate use of intravenous fluids, and demonstrate safe administration of medication in the treatment of adult and pediatric patients.
7. Prepare for incident response and EMS operations
8. Integrate pathophysiological principles and assessment findings to provide appropriate patient care
9. Demonstrate AEMT skills associated with established standards and procedures for a variety of patient encounters
10. Communicate effectively with others
11. Demonstrate professional behavior
12. Meet state competencies for AEMT certification

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must submit a current CPR certification.
3. Students must have current Wisconsin EMS licensure.

### Graduation Requirements

1. Minimum 4 credits with a cumulative GPA of 2.0 or above.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. A valid Wisconsin EMT license will be accepted in place of 531-326.
2. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
3. COVID-19 policy at field and clinical sites are subject to change at the discretion of the sites themselves. EMT program students must abide by field and clinical site COVID-19 policies while participating in clinical or field time at these sites.
4. Applicants of this program are subject to a review of their criminal backgrounds as a part of the training center training permit process. Positive background checks may negatively impact your ability to pursue EMS education at Gateway Technical College.
5. Drug testing and/or immunizations are required prior to clinical practice during the program.

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## Accounting Assistant (31-101-1)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D = Racine/days, K-D = Kenosha/days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	K-D	O
1	890-155	1	Gateway to Success (G2S)		F	F	F/S/SU
1	*101-114	4	Accounting Principles <sup>2</sup>		F	F	F/S/SU
1	*101-128	3	QuickBooks Online <sup>2</sup>	Coreq: 101-114 OR 101-112	F	F	F/S/SU
1	103-143	3	Computers for Professionals <sup>2</sup>		F	F	F/S/SU
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F	F	F/S/SU
2	*101-119	3	Payroll Accounting <sup>2</sup>		S	S	F/S/SU
2	*101-106	3	Accounting Spreadsheet Apps. <sup>2</sup>	Prereq: 103-143 OR 103-102	S	S	F/S/SU
2	*101-104	4	Income Tax Accounting <sup>2</sup>		S	S	F/S/SU
2	*101-116	3	Corporate Accounting	Prereq: 101-114; Coreq: 804-135; 801-136;103-143 OR 103-102	S	S	F/S/SU
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S	S	F/S/SU

**Minimum Program Total Credits Required: 30**

Students who are interested in continuing into the 10-101-1 Accounting Program can earn their associate degree by completing an additional 34 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Accounting Assistant (31-101-1)

Students who complete this one-year technical diploma will be able to compute, classify and record accounting information to keep financial records complete. They will proficiently be able to perform any routine calculating, posting and verifying duties primary to maintaining accurate financial records. Additionally, students will be able to perform general office duties including filing and handling routine correspondence to employees, customers and vendors. Students who complete this technical diploma will be able to obtain employment as an office manager, accounting clerk, bookkeeper, accounting assistant, or accounting associate.

### Program Learning Outcomes

Graduates will be able to:

1. Process financial transactions throughout the accounting cycle.
2. Analyze basic financial and business information to support planning and decision-making.
3. Perform payroll preparation, reporting, and analysis tasks.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 30 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Accounting is a laptop program. Students will need a Windows-Based computer (with a hard drive) for use in the classroom. Please note MAC computers are not compatible with some of the required software.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Accounting Assistant (31-101-1)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-E = Racine/evenings, K-E = Kenosha/evenings, E-E = Elkhorn/evenings**  
**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-E	K-E	E-E	O
1	890-155	1	Gateway to Success (G2S)		F	F	F	F/S/SU
1	*101-114	4	Accounting Principles <sup>2</sup>		F	F	F	F/S/SU
1	103-143	3	Computers for Professionals <sup>2</sup>		F	F	F	F/S/SU
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S	S	S	F/S/SU
2	*101-119	3	Payroll Accounting <sup>2</sup>		S	S	S	F/S/SU
2	*101-128	3	QuickBooks Online <sup>2</sup>	Coreq: 101-114 OR 101-112	S	S	S	F/S/SU
3	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	SU	SU	SU	F/S/SU
3	*101-116	3	Corporate Accounting	Prereq: 101-114; Coreq: 804-135; 801-136; 103-143 OR 103-102	SU	SU	SU	F/S/SU
4	*101-106	3	Accounting Spreadsheet Apps. <sup>2</sup>	Prereq:103-143 OR 103-102	F	F	F	F/S/SU
4	*101-104	4	Income Tax Accounting <sup>2</sup>		F	F	F	F/S/SU

**Minimum Program Total Credits Required: 30**

Students who are interested in continuing into the 10-101-1 Accounting Program can earn their associate degree by completing an additional 34 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Accounting Assistant (31-101-1)

Students who complete this one-year technical diploma will be able to compute, classify and record accounting information to keep financial records complete. They will proficiently be able to perform any routine calculating, posting and verifying duties primary to maintaining accurate financial records. Additionally, students will be able to perform general office duties including filing and handling routine correspondence to employees, customers and vendors. Students who complete this technical diploma will be able to obtain employment as an office manager, accounting clerk, bookkeeper, accounting assistant, or accounting associate.

### Program Learning Outcomes

Graduates will be able to:

1. Process financial transactions throughout the accounting cycle.
2. Analyze basic financial and business information to support planning and decision-making.
3. Perform payroll preparation, reporting, and analysis tasks.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 30 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Accounting is a laptop program. Students will need a Windows-Based computer (with a hard drive) for use in the classroom. Please note MAC computers are not compatible with some of the required software.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Automotive Maintenance Technician (31-404-3)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*602-130	3	Auto Shop Essentials		F
1	*602-107	2	Auto Service Fundamentals <sup>4</sup>	Prereq: 602-130	F
1	*602-104	3	Brake Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
1	*602-124	3	Steering & Suspension Systems <sup>4</sup>	Prereq: 602-107; 602-130	F
2	*602-125	2	Electrical & Electronic Systems 1 <sup>4</sup>	Prereq: 602-107; 602-130 Coreq: 804-135	S
2	*602-127	3	Electrical & Electronic Systems 2	Prereq: 602-125	S
2	*602-196	3	Climate Control Systems <sup>4</sup>	Prereq: 602-127	S
2	*602-204	3	Engine Repair 1 <sup>4</sup>	Prereq: 602-107; 602-130	S
2	804-135	3	Quantitative Reasoning <sup>1,4</sup>	Prereq: 834-109	S+
3	801-136	3	English Composition 1 <sup>1,4</sup>	Prereq: 831-103 OR 851-757	SU+
3	801-196	3	Oral/Interpersonal Communication		SU+

**Minimum Program Total Credits Required: 32**

Students interested in continuing into the 10-602-3 Automotive Technology program can earn their associate degree by completing an additional 33 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.



### **Automotive Maintenance Technician (31-404-3)**

*Automotive Maintenance Technician* gives an overview of essential servicing techniques, including the testing, repairing, and rebuilding of basic automotive systems. Graduates of this program have the skills necessary for entry-level employment at automotive repair facilities and retail service centers or to pursue an Associate of Applied Science degree in a two-year automotive program. The student will be prepared to take up to four ASE tests in the following areas: brakes, suspension and steering, heating and air conditioning, and electrical systems. Special emphasis will be placed on mechanical relationships and basic engine performance. Students will be able to apply the techniques learned in lectures in an automotive shop laboratory setting. This will be accomplished in a simulated work environment.

### **Program Learning Outcomes**

Graduates will be able to:

1. Diagnose, service, and repair Suspension and Steering systems of light duty vehicles.
2. Diagnose, service, and repair Brake systems of light duty vehicles.
3. Diagnose, service, and repair Heating, Ventilating and Air Conditioning systems of light duty vehicles.
4. Diagnose and service Gasoline Engines of light duty vehicles.
5. Service Engine Performance related systems of light duty vehicles.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are needed, allow at least 90 days before the program start to obtain prescription and glasses.
3. A student supplied tablet computer is required for all 602 courses. Please contact the department prior to purchasing a computer for the minimum specification sheet.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**  
School of Protective and Human Services

## Barber Technologist (30-502-5)

### Technical Diploma

### Effective 2024/2025

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, B-D = Burlington Center/days, R-D = Racine/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	B-D	R-D
1	*502-736	2	Barber Industry	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-742	1	Intro to Barbering	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-738	2	Basic Haircutting	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-735	2	Advanced Haircutting	Prereq: 502-738	S	S	S
1	*502-741	2	Hairstyling	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-740	2	Hair Color	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-743	2	Shaving	Prereq: Advisor OR Instructor Consent	S	S	S
1	*502-739	2	Chemical Texturing	Prereq: Advisor OR Instructor Consent	S	S	S
2	*502-730	2	Client Services 1 Haircutting	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU	SU	SU
2	*502-731	2	Client Services 2 Chemical Services	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU	SU	SU
2	*502-732	2	Client Services 3 Male Facial/Shaving	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU	SU	SU
2	*502-733	2	Client Services 4 Mock Board Skills	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU	SU	SU
2	*502-734	2	Client Services 5 State Board Prep	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU	SU	SU

**Minimum Program Total Credits Required: 25**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
 (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Barber Technologist (30-502-5)

The *Barber Technologist* program offers a variety of courses such as Haircutting, Shaving, Styling, Color, Chemical Texture Services, and Male Facials. In addition to barber ownership or barber management, one can choose from positions in sales, advertising, research, and education.

### Program Learning Outcomes

Graduates will be able to:

1. Adhere to current state and federal administrative codes and statutes for barbers.
2. Perform shampoo, haircut, and style service.
3. Demonstrate facial hair removal techniques.
4. Perform male facial procedures.
5. Perform chemical services.
6. Develop business practices for industry success.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following to indicate reading readiness for the program: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or submit proof of minimum test scores (15 ACT Reading; 19 SAT Reading, 237 Accuplacer Reading)
3. Students must view the Information Video online and submit the corresponding electronic form verifying understanding of information presented.

### Graduation Requirements

1. Minimum 25 credits with a cumulative GPA of 2.0 or above.
  2. \*A Minimum of 2.0 ("C") or above for these major courses.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. This is a high-demand program with limited openings.
2. Supplies and materials are required for this program. All kits, books, workbooks, Milady CIMA Online Student Learning, and the required uniform smock must be purchased prior to beginning the first day of the program from the campus bookstore. Full black scrubs are also required and must be purchased independently prior to the beginning of the program.
3. Students must be 18 years of age or a high school graduate to take the state licensure exam.
4. Students must complete all classroom portions of instruction except 502-742 and 502-736 before beginning any of the client services courses.
5. Prospective students should apply to the program to be assigned an advisor, who will provide consent to enroll in 502 program courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Barber Technologist (30-502-5)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-E = Kenosha/evenings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E
1	*502-742	1	Intro to Barbering	Prereq: Advisor OR Instructor Consent	F
1	*502-738	2	Basic Haircutting	Prereq: Advisor OR Instructor Consent	F
1	*502-735	2	Advanced Haircutting	Prereq: 502-738	F
1	*502-741	2	Hairstyling	Prereq: Advisor OR Instructor Consent	F
2	*502-739	2	Chemical Texturing	Prereq: Advisor OR Instructor Consent	S
2	*502-740	2	Hair Color	Prereq: Advisor OR Instructor Consent	S
2	*502-743	2	Shaving	Prereq: Advisor OR Instructor Consent	S
3	*502-736	2	Barber Industry	Prereq: Advisor OR Instructor Consent	SU
3	*502-730	2	Client Services 1 Haircutting	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU
3	*502-731	2	Client Services 2 Chemical Services	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	SU
4	*502-732	2	Client Services 3 Male Facial/Shaving	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	F
4	*502-733	2	Client Services 4 Mock Board Skills	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	F
4	*502-734	2	Client Services 5 State Board Prep	Prereq: Advisor OR Instructor Consent; 502-738; 502-735; 502-741; 502-740; 502-743; 502-739	F

**Minimum Program Total Credits Required: 25**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
 (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Barber Technologist (30-502-5)

The *Barber Technologist* program offers a variety of courses such as Haircutting, Shaving, Styling, Color, Chemical Texture Services, and Male Facials. In addition to barber ownership or barber management, one can choose from positions in sales, advertising, research, and education.

### Program Learning Outcomes

Graduates will be able to:

1. Adhere to current state and federal administrative codes and statutes for barbers.
2. Perform shampoo, haircut, and style service.
3. Demonstrate facial hair removal techniques.
4. Perform male facial procedures.
5. Perform chemical services.
6. Develop business practices for industry success.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following to indicate reading readiness for the program: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or submit proof of minimum test scores (15 ACT Reading; 19 SAT Reading, 237 Accuplacer Reading)
3. Students must view the Information Video online and submit the corresponding electronic form verifying understanding of information presented.

### Graduation Requirements

1. Minimum 25 credits with a cumulative GPA of 2.0 or above.
  2. \*A Minimum of 2.0 ("C") or above for these major courses.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. This is a high-demand program with limited openings.
2. Supplies and materials are required for this program. All kits, books, workbooks, Milady CIMA Online Student Learning, and the required uniform smock must be purchased prior to beginning the first day of the program from the campus bookstore. Full black scrubs are also required and must be purchased independently prior to the beginning of the program.
3. Students must be 18 years of age or a high school graduate to take the state licensure exam.
4. Students must complete all classroom portions of instruction except 502-742 and 502-736 before beginning any of the client services courses.
5. Prospective students should apply to the program to be assigned an advisor, who will provide consent to enroll in 502 program courses.

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Building Trades - Carpentry (31-475-1)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	Gateway to Success (G2S)		F
1	*475-300	3	Building Construction, Intro		F
1	*475-302	2	Residential Print Reading		F
1	*475-303	3	Framing Techniques 1		F
1	804-370	2	Mathematics I / Applied <sup>2</sup>	Prereq: 854-760	F
2	*475-305	3	Framing Techniques 2	Prereq: 475-303	S
2	*475-308	3	Fundamentals of Wood Construction		S
2	*475-310	3	Interior Finish Trim		S
2	801-301	1	Writing Principles <sup>2</sup>	Prereq: 851-760	S
2	801-302	1	Speaking Principles		S
3	*475-304	1	Commercial Print Reading	Prereq: 475-302	SU
3	*475-306	3	Exterior Trim		SU
3	*475-309	3	Fundamentals of Concrete Construction		SU
3	*475-311	3	Interior Coverings		SU

**Minimum Program Total Credits Required: 32**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Building Trades - Carpentry (31-475-1)

The *Building Trades - Carpentry* program provides the student with the knowledge and skills necessary for job success in the industry. Fundamentals of industry materials, building design, and layout operation are taught in the classroom. The use of hand and power tools is developed in the shop. Construction techniques are developed in the shop. Related mathematics, blueprint reading and welding are included in the training.

### Program Learning Outcomes

Graduates will be able to:

1. Use hand and power tools and equipment.
2. Apply industry recognized safety practices and procedures.
3. Analyze sustainable building practices.
4. Interpret construction drawings.
5. Interpret building codes.
6. Demonstrate industry building practices and material application.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students will be required to purchase a variety of personal safety items that will be utilized throughout the program.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.





## Business Services Manager (31-102-5)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F/S/SU
1	*101-114	4	Accounting Principles <sup>1</sup>		F/S/SU
1	*102-137	3	Business / Intro to <sup>1</sup>		F/S/SU
1	*102-160	3	Business Law <sup>1</sup>		F/S/SU
1	*103-143	3	Computers for Professionals <sup>1</sup>		F/S/SU
2	801-198	3	Speech <sup>1</sup>		F/S/SU
2	*104-101	3	Marketing Principles <sup>1</sup>		F/S/SU
2	*104-104	3	Selling Principles		F/S/SU
2	*104-105	3	Promotion Principles		F/S/SU
2	*196-191	3	Supervision <sup>1</sup>		F/S/SU

<b>Minimum Program Total Credits Required: 29</b>
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Students interested in continuing into the 10-102-3 Business Management program can earn their associate degree by completing an additional 33 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Business Services Manager (31-102-5)**

The focus of the *Business Services Manager* diploma is to provide the learner with knowledge in the major functional areas of a business including law, accounting, information technology, and marketing. Students will develop competence in the business functions of planning organizing, directing and controlling. Graduates will be prepared to supervise the work of office administrative, or customer service employees to ensure adherence to quality standards, deadlines, and proper procedures, and will be equipped to implement corporate or departmental policies, procedures, and service standards in conjunction with management.

### **Program Learning Outcomes**

Graduates will be able to:

1. Plan the operations of a business across functional areas.
2. Organize resources to achieve the goals of the organization.
3. Direct individuals and/or processes to meet organizational goals.
4. Control business processes.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Business Services Manager (31-102-5)

Technical Diploma  
**Effective 2024/2025**

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All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-D = Elkhorn/days, R-D=Racine/days, K-D=Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D	K-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F	F
1	*102-137	3	Business / Intro to <sup>2</sup>		F	F	F
1	*196-191	3	Supervision <sup>2</sup>		F	F	F
2	*102-160	3	🎓 Business Law <sup>2</sup>		S	S	S
2	*104-101	3	Marketing Principles <sup>2</sup>		S	S	S
2	*104-104	3	Selling Principles		S	S	S
2	*104-105	3	Promotion Principles		S	S	S
3	*101-114	4	Accounting Principles <sup>2</sup>		F	F	F
3	*103-143	3	Computers for Professionals <sup>2</sup>		F	F	F
3	801-198	3	Speech <sup>2</sup>		F	F	F

**Minimum Program Total Credits Required: 29**

Students interested in continuing into the 10-102-3 Business Management program can earn their associate degree by completing an additional 33 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Business Services Manager (31-102-5)**

The focus of the *Business Services Manager* diploma is to provide the learner with knowledge in the major functional areas of a business including law, accounting, information technology, and marketing. Students will develop competence in the business functions of planning organizing, directing and controlling. Graduates will be prepared to supervise the work of office administrative, or customer service employees to ensure adherence to quality standards, deadlines, and proper procedures, and will be equipped to implement corporate or departmental policies, procedures, and service standards in conjunction with management.

### **Program Learning Outcomes**

Graduates will be able to:

1. Plan the operations of a business across functional areas.
2. Organize resources to achieve the goals of the organization.
3. Direct individuals and/or processes to meet organizational goals.
4. Control business processes.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**CNC Production Technician (31-444-2)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, I-D = iMET/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-D
1	890-155	1	Gateway to Success (G2S)		F	F
1	*444-316	3	Foundations of CNC Machining		F	F
1	*444-331	3	CNC Machining Technology		F	F
1	*444-337	3	Fund. of Blueprint and Shop Safety		F	F
1	*444-339	3	Gauging and Quality Control <sup>4</sup>		F	F
2	*444-333	3	Fund. of CNC Turning Applications	Prereq: 444-331	S	S
2	*444-334	3	Fund. Of CNC Milling Applications		S	S
2	*444-335	3	CNC Lathe Set-Up		S	S
2	*444-336	3	CNC Mill Set-Up		S	S
2	804-370	2	Mathematics I, Applied <sup>1</sup>	Prereq: 854-760	S	S

**Minimum Program Total Credits Required: 27**

Students interested in continuing into the 31-444-3 CNC Programmer program can earn their technical diploma by completing an additional 12 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **CNC Production Technician (31-444-2)**

*CNC Production Technician* is a well-rounded approach to becoming a CNC Technician. We teach the skills necessary for students to become qualified set-up technicians. Students are taught the basics of G-Code programming, proper M-Code usage, and the required steps to efficiently set fixture and tool offsets. Students create their own CNC programs and DNC to the proper machine tool. An excellent overall knowledge of CNC Controls is achieved by working on several different brand name controls. Overall, students will be proficient at programming, set-up, operation, editing, and part inspection.

### **Program Learning Outcomes**

Graduates will be able to:

1. Apply basic safety practices in the machine shop.
2. Interpret industrial/engineering drawings.
3. Apply precision measuring methods to part inspection.
4. Perform basic machine tool equipment set-up and operation.
5. Perform programming, set-up, and operations of CNC machine tools.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 27 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A hand calculator capable of trigonometric functions is required for 804-370; the cost is approximately \$25.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**CNC Production Technician (31-444-2)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, I-E = iMET Center/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-E
1	890-155	1	Gateway to Success (G2S)		F	F+
1	*444-331	3	CNC Machining Technology		F	F
1	*444-337	3	Fund. of Blueprint and Shop Safety		F	F
1	*444-339	3	Gauging and Quality Control <sup>‡</sup>		F	F+
2	*444-316	3	Foundations of CNC Machining		S	S
2	*444-334	3	Fund. Of CNC Milling Applications		S	S
2	804-370	2	Mathematics I, Applied <sup>‡</sup>	Prereq: 854-760	S	S+
3	*444-333	3	Fund. of CNC Turning Applications	Prereq: 444-331	SU	SU
3	*444-335	3	CNC Lathe Set-Up		SU	SU
3	*444-336	3	CNC Mill Set-Up		SU	SU

**Minimum Program Total Credits Required: 27**

Students interested in continuing into the 31-444-3 CNC Programmer program can earn their technical diploma by completing an additional 12 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.



## **CNC Production Technician (31-444-2)**

*CNC Production Technician* is a well-rounded approach to becoming a CNC Technician. We teach the skills necessary for students to become qualified set-up technicians. Students are taught the basics of G-Code programming, proper M-Code usage, and the required steps to efficiently set fixture and tool offsets. Students create their own CNC programs and DNC to the proper machine tool. An excellent overall knowledge of CNC Controls is achieved by working on several different brand name controls. Overall, students will be proficient at programming, set-up, operation, editing, and part inspection.

### **Program Learning Outcomes**

Graduates will be able to:

1. Apply basic safety practices in the machine shop.
2. Interpret industrial/engineering drawings.
3. Apply precision measuring methods to part inspection.
4. Perform basic machine tool equipment set-up and operation.
5. Perform programming, set-up, and operations of CNC machine tools.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 27 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A hand calculator capable of trigonometric functions is required for 804-370; the cost is approximately \$25.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**CNC Programmer (31-444-3)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, I-D = iMET/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*444-316	3	Foundations of CNC Machining		F	F
1	*444-331	3	🎓 CNC Machining Technology		F	F
1	*444-337	3	🎓 Fund. of Blueprint and Shop Safety		F	F
1	*444-339	3	Gauging and Quality Control <sup>4</sup>		F	F
2	*444-333	3	Fund. of CNC Turning Applications	Prereq: 444-331	S	S
2	*444-334	3	Fund. of CNC Milling Applications		S	S
2	*444-335	3	CNC Lathe Set-Up		S	S
2	*444-336	3	CNC Mill Set-Up		S	S
2	804-370	2	Mathematics I, Applied <sup>1</sup>	Prereq: 854-760	S	S
3	*444-307	3	Fund. of Swiss CNC Turning		SU	SU
	<b>OR</b>		<b>OR</b>			
3	*444-308	3	Fund. of Live Tooling		SU	SU
	<b>OR</b>		<b>OR</b>			
3	*444-306	3	Swiss CNC Setup and Operation		SU	SU
3	*444-309	3	Live Tooling Setup and Operation		SU	SU
3	*444-311	3	CNC Lathe Process	Prereq: 444-335	SU	SU
3	*444-314	3	CNC Mill Process	Prereq: 444-336	SU	SU

**Minimum Program Total Credits Required: 39**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **CNC Programmer (31-444-3)**

The *CNC Programmer* technical diploma program gives an overview of essential machine shop practices including machine safety, blueprint reading and part inspection methods. CNC Machine programming, set-up and operation will also be covered in-depth. Graduates of this program will have the skills necessary for entry-level employment in a machine shop setting. Machinists already employed will find the program a great way to improve their skill set. Special emphasis will be placed on learning the skills necessary to transform raw material into a finished part. Students will be able to apply the techniques learned in lectures within a machine shop setting. Overall this program is intended to introduce students to many different aspects within a machine shop setting.

### **Program Learning Outcomes**

Graduates will be able to:

1. Apply basic safety practices in the machine shop.
2. Interpret industrial/engineering drawings.
3. Apply precision measuring methods to part inspection.
4. Perform basic machine tool equipment set-up and operation.
5. Perform programming, set-up, and operation on CNC milling centers.
6. Perform programming, set-up, and operation on CNC turning centers.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 39 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A hand calculator capable of trigonometric functions is required for 804-370; the cost is approximately \$25.
4. A credit for prior learning assessment is available for this course.

For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**CNC Programmer (31-444-3)**

Technical Diploma

**Effective 2024/2025**

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Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	I-D	I-E
1	890-155	1	📍 Gateway to Success (G2S)		F	F+	F+
1	*444-331	3	🎓 CNC Machining Technology		F	F	F
1	*444-337	3	🎓 Fund. of Blueprint and Shop Safety		F	F	F
1	*444-339	3	Gauging and Quality Control <sup>4</sup>		F	F	F
2	*444-316	3	Foundations of CNC Machining		S	S	S
2	*444-334	3	Fund. of CNC Milling Applications		S	S	S
2	804-370	2	Mathematics I, Applied <sup>1</sup>	Prereq: 854-760	S	S+	S+
3	*444-307	3	Fund. of Swiss CNC Turning		SU	SU	SU
	<b>OR</b>		<b>OR</b>				
3	*444-308	3	Fund. of Live Tooling		SU	SU	SU
	*444-306		<b>OR</b>				
3	*444-309	3	Swiss CNC Setup and Operation		SU	SU	SU
	<b>OR</b>		<b>OR</b>				
3	*444-333	3	Live Tooling Setup and Operation	Prereq: 444-331	SU	SU	SU
4	*444-335	3	Fund. of CNC Turning Applications		F	F	F
4	*444-336	3	CNC Lathe Set-Up		F	F	F
5	*444-311	3	CNC Mill Set-Up	Prereq: 444-335	S	S	S
5	*444-314	3	CNC Lathe Process	Prereq: 444-336	S	S	S

**Minimum Program Total Credits Required: 39**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **CNC Programmer (31-444-3)**

The *CNC Programmer* technical diploma program gives an overview of essential machine shop practices including machine safety, blueprint reading and part inspection methods. CNC Machine programming, set-up and operation will also be covered in-depth. Graduates of this program will have the skills necessary for entry-level employment in a machine shop setting. Machinists already employed will find the program a great way to improve their skill set. Special emphasis will be placed on learning the skills necessary to transform raw material into a finished part. Students will be able to apply the techniques learned in lectures within a machine shop setting. Overall this program is intended to introduce students to many different aspects within a machine shop setting.

### **Program Learning Outcomes**

Graduates will be able to:

1. Apply basic safety practices in the machine shop.
2. Interpret industrial/engineering drawings.
3. Apply precision measuring methods to part inspection.
4. Perform basic machine tool equipment set-up and operation.
5. Perform programming, set-up, and operation on CNC milling centers.
6. Perform programming, set-up, and operation on CNC turning centers.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 39 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses (marked Z-87) are required in labs. If prescription glasses are needed, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A hand calculator capable of trigonometric functions is required for 804-370; the cost is approximately \$25.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Construction Management Technician (31-455-1)**

Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, I-E = iMET Center/evenings, E-D = Elkhorn/days, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	I-E	E-D	E-E
1	890-155	1	Gateway to Success (G2S)		F+	F+	F	F
1	*607-104	3	Building Material & Construction Method <sup>2</sup>		F	F	F	F
1	*607-136	2	Construction Project Management <sup>2</sup>		F	F	F	F
1	*607-141	2	Construction Basics <sup>2</sup>		F	F	F	F
1	*607-170	2	AutoCAD for Construction Sciences <sup>2,3</sup>		F	F	F	F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F+	F+	F	F
2	*607-102	2	Conflict Resolution in CET <sup>2,3</sup>		S+	S+	S	S
2	*607-128	3	Construction Estimating <sup>2</sup>	Coreq: 801-136; 804-135 OR 804-115	S	S	S	S
2	*607-129	2	Future Trends Civil/Archi Tech <sup>2</sup>	Prereq: 607-104; 607-141	S	S	S	S
2	*614-102	2	Capstone: Construction Project Management <sup>2</sup>	Prereq: 607-136	S	S	S	S
2	801-136	3	English Composition <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S+	S+	S	S
3	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	SU+	SU+	SU	SU
3	*607-169	2	Surveying Basics <sup>2</sup>		SU	SU	SU	SU
3	*607-187	2	3D CAD: Dig Terrain Model <sup>2</sup>		SU	SU	SU	SU
3	*614-150	2	3D CAD: Building Information Modeling <sup>2</sup>		SU	SU	SU	SU

**Minimum Program Total Credits Required: 34**

Students interested in continuing into the 10-614-6 Architectural-Structural Engineering Technician program can earn their associate degree by completing an additional 31 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Racine.

### **Construction Management Technician (31-455-1)**

The Construction Management Technician diploma prepares learners to assist construction project managers and senior staff with the scheduling, supervision and coordination of construction tasks or trade workers. Learners will gain skills in reading specifications and blueprints to determine construction requirements or to plan procedures, inspect work progress, equipment, or construction sites to ensure that specifications are met.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Develop construction schedules.
2. Evaluate building materials.
3. Analyze risk in a construction project.
4. Explore building modeling and construction related software.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 34 credits with a cumulative GPA of 2.0 or above in all courses.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Classes offered at Elkhorn Campus via NODAL delivery. See [www.gtc.edu](http://www.gtc.edu) for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2<sup>nd</sup> semester.

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Construction Management Technician (31-455-1)**

Technical Diploma

**Effective 2024/2025**

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All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**I-D = iMET Center/days, I-E = iMET Center/evenings, E-D = Elkhorn/days, E-E = Elkhorn/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	I-E	E-D	E-E
1	890-155	1	📍 Gateway to Success (G2S)		F+	F+	F	F
1	*607-141	2	Construction Basics <sup>2</sup>		F	F	F	F
1	*607-104	3	🎓 Building Material & Construction Method <sup>2</sup>		F	F	F	F
2	*607-102	2	Conflict Resolution in CET <sup>2</sup>		S	S	S	S
2	801-136	3	English Composition 1 <sup>1,3</sup>	Prereq: 831-103 OR 851-757	S+	S+	S	S
2	804-135	3	🎓 Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S+	S+	S	S
3	*607-169	2	Surveying Basics <sup>2</sup>		SU	SU	SU	SU
3	*607-187	2	3D CAD: Dig Terrain Model <sup>2</sup>		SU	SU	SU	SU
3	*614-150	2	3D CAD: Building Information Modeling <sup>2</sup>		SU	SU	SU	SU
4	*607-136	2	Construction Project Management <sup>2</sup>		F	F	F	F
4	*607-170	2	AutoCAD for Construction Sciences <sup>2,3</sup>		F	F	F	F
4	809-195	3	Economics <sup>1,3</sup>	Prereq: 838-105 OR 851-757	F+	F+	F	F
5	*614-102	2	Capstone: Construction Project Management 2 <sup>2</sup>	Prereq: 607-136	S	S	S	S
5	*607-128	3	Construction Estimating <sup>2</sup>	Coreq: 801-136; 804-135 OR 804-115	S	S	S	S
5	*607-129	2	Future Trends Civil/Archi Tech <sup>2</sup>	Prereq: 607-104; 607-141	S	S	S	S

**Minimum Program Total Credits Required: 34**

Students interested in continuing into the 10-614-6 Architectural-Structural Engineering Technician program can earn their associate degree by completing an additional 31 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Construction Management Technician (31-455-1)**

The Construction Management Technician diploma prepares learners to assist construction project managers and senior staff with the scheduling, supervision and coordination of construction tasks or trade workers. Learners will gain skills in reading specifications and blueprints to determine construction requirements or to plan procedures, inspect work progress, equipment, or construction sites to ensure that specifications are met.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Develop construction schedules.
2. Evaluate building materials.
3. Analyze risk in a construction project.
4. Explore building modeling and construction related software.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 34 credits with a cumulative GPA of 2.0 or above in all courses.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Classes offered at Elkhorn Campus via NODAL delivery. See [www.gtc.edu](http://www.gtc.edu) for details.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Safety glasses may be required in various classes after the first semester. If prescription safety glasses are required, please allow sufficient time to obtain your glasses prior to the start of the 2<sup>nd</sup> semester.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**  
School of Protective and Human Services

**Cosmetology (31-502-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**B-D = Burlington/days, R-D = Racine/days, K-D = Kenosha/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	B-D	R-D	K-D
1	*502-312	1	Intro to Barber/Cosmetology <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-301	1	Shampoo Treatment <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-324	2	Barber/Cosmetology Industry <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-366	2	Women's Haircutting <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-352	2	Men's Haircutting <sup>7,8</sup>	Prereq: 502-366	F/S	F/S	F/S
1	*502-353	2	Perm Techniques <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-345	2	Basic Hair Color <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-349	2	Facials <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
1	*502-350	2	Hair Design 1 <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F/S	F/S	F/S
2	*502-320	1	Basic Manicuring <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-348	2	Chemical Straightening <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent; 502-353	S/SU	S/SU	S/SU
2	*502-347	2	Bleaching <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent; 502-345	S/SU	S/SU	S/SU
2	*502-351	2	Hair Design 2 <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-354	1	Salon Service 1 Facial Skin Care <sup>8</sup>	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-355	1	Salon Service 2 Nail Skills <sup>8</sup>	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-356	1	Salon Service 3 Long Hair Design	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-367	1	Salon Service 4 Women's Haircutting	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-308	1	Salon Service 5 Perming	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
2	*502-309	1	Salon Service 6 Men's Haircutting	Prereq: Advisor OR Instructor Consent	S/SU	S/SU	S/SU
3	*502-310	1	Salon Service 7 Hair Color	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-361	1	Salon Service 8 Hairstyling	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-362	1	Salon Service 9 Chemical Relaxing	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-311	1	Salon Service 10 Interpersonal Skills	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-364	1	Salon Service 11 Bleaching	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-365	1	Salon Service 12 Shampoo	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-371	1	Mock Board Theory	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F
3	*502-370	2	Mock Board Skills	Prereq: Advisor OR Instructor Consent	SU/F	SU/F	SU/F

**Minimum Program Total Credits Required: 38**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Cosmetology (31-502-1)

Exciting careers are open to the licensed, experienced Cosmetologists. In addition to salon ownership, salon management, and specialization of a service, one can choose from positions in sales, advertising, research, education, and makeup artistry. The possibilities are unlimited and so is the income potential. Students receive instruction in Cosmetology skills such as hair designing, haircutting, hair coloring, permanent waving, and manicuring. Classes in makeup artistry, sculptured nails, color analysis, and salon management are also included.

### Program Learning Outcomes

Graduates will be able to:

1. Perform shampoo, haircut, and style services.
2. Perform skin care services.
3. Perform chemical services.
4. Perform nail services.
5. Develop business practices for industry success.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following to indicate reading readiness for the program: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or submit proof of minimum test scores (15 ACT Reading; 19 SAT Reading, 237 Accuplacer Reading).
3. Students must view the Information Video online and submit the corresponding electronic form verifying understanding of information presented.

### Graduation Requirements

1. Minimum 38 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. This is a high demand program with limited openings.
2. Supplies and materials are required for this program. All kits, books, workbooks, Milady CIMA Online Student Learning, and the required uniform smock must be purchased prior to beginning the first day of the program from the campus bookstore. Full black scrubs are also required and must be purchased independently prior to the beginning of the program.
3. Students must be 18 years of age or a high school graduate to take the state licensure exam.
4. Students must complete both 502-337 Manicure/Nail Technician I and 502-338 Manicure/Nail Technician II to be eligible to take the Wisconsin Manicurist/Nail Technician license exam.
5. Students must complete all classroom portions of a course except 502-312 or 502-324 before beginning any of the Salon Services or Mock Board courses.
6. These courses require the following prerequisites: 502-301; 502-345; 502-320; 502-347; 502-348; 502-349; 502-350; 502-351; 502-352; 502-353; and 502-366.
7. A credit for prior learning assessment is available for this course. For more information, please contact [gtc.edu/cfpl](http://gtc.edu/cfpl).
8. Prospective students should apply to the program to be assigned an advisor, who will provide consent to enroll in 502 program courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Cosmetology (31-502-1)

### Technical Diploma

### Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-E = Kenosha/evenings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E
1	*502-312	1	Intro to Barber/Cosmetology <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
1	*502-301	1	Shampoo Treatment <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
1	*502-350	2	Hair Design 1 <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
1	*502-366	2	Women's Haircutting <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
1	*502-352	2	Men's Haircutting <sup>8</sup>	Prereq: 502-366	F
2	*502-353	2	Perm Techniques <sup>8</sup>	Prereq: Advisor OR Instructor Consent	S
2	*502-345	2	Basic Hair Color <sup>8</sup>	Prereq: Advisor OR Instructor Consent	S
2	*502-349	2	Facials <sup>8</sup>	Prereq: Advisor OR Instructor Consent	S
3	*502-324	2	Barber/Cosmetology Industry <sup>8</sup>	Prereq: Advisor OR Instructor Consent	SU
3	*502-348	2	Chemical Straightening <sup>8</sup>	Prereq: Advisor OR Instructor Consent; 502-353	SU
3	*502-347	2	Bleaching <sup>8</sup>	Prereq: Advisor OR Instructor Consent; 502-345	SU
4	*502-320	1	Basic Manicuring <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
4	*502-351	2	Hair Design 2 <sup>8</sup>	Prereq: Advisor OR Instructor Consent	F
4	*502-354	1	Salon Service 1 Facial Skin Care <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F
4	*502-355	1	Salon Service 2 Nail Skills <sup>7,8</sup>	Prereq: Advisor OR Instructor Consent	F
4	*502-356	1	Salon Service 3 Long Hair Design <sup>7</sup>	Prereq: Advisor OR Instructor Consent	F
5	*502-367	1	Salon Service 4 Women's Haircutting <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
5	*502-308	1	Salon Service 5 Perming <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
5	*502-309	1	Salon Service 6 Men's Haircutting <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
5	*502-310	1	Salon Service 7 Hair Color <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
5	*502-361	1	Salon Service 8 Hairstyling <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
5	*502-362	1	Salon Service 9 Chemical Relaxing <sup>7</sup>	Prereq: Advisor OR Instructor Consent	S
6	*502-311	1	Salon Service 10 Interpersonal Skills <sup>7</sup>	Prereq: Advisor OR Instructor Consent	SU
6	*502-364	1	Salon Service 11 Bleaching <sup>7</sup>	Prereq: Advisor OR Instructor Consent	SU
6	*502-365	1	Salon Service 12 Shampoo <sup>7</sup>	Prereq: Advisor OR Instructor Consent	SU
6	*502-370	2	Mock Board Skills	Prereq: Advisor OR Instructor Consent	SU
6	*502-371	1	Mock Board Theory	Prereq: Advisor OR Instructor Consent	SU

**Minimum Program Total Credits Required: 38**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Cosmetology (31-502-1)

Exciting careers are open to the licensed, experienced Cosmetologists. In addition to salon ownership, salon management, and specialization of a service, one can choose from positions in sales, advertising, research, education, and makeup artistry. The possibilities are unlimited and so is the income potential. Students receive instruction in Cosmetology skills such as hair designing, haircutting, hair coloring, permanent waving, and manicuring. Classes in makeup artistry, sculptured nails, color analysis, and salon management are also included.

### Program Learning Outcomes

Graduates will be able to:

1. Perform shampoo, haircut, and style services.
2. Perform skin care services.
3. Perform chemical services.
4. Perform nail services.
5. Develop business practices for industry success.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following to indicate reading readiness for the program: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or submit proof of minimum test scores (15 ACT Reading; 19 SAT Reading, 237 Accuplacer Reading).
3. Students must view the Information Video online and submit the corresponding electronic form verifying understanding of information presented.

## Graduation Requirements

1. Minimum 38 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. This is a high demand program with limited openings.
2. Supplies and materials are required for this program. All kits, books, workbooks, Milady CIMA Online Student Learning, and the required uniform smock must be purchased prior to beginning the first day of the program from the campus bookstore. Full black scrubs are also required and must be purchased independently prior to the beginning of the program.
3. Students must be 18 years of age or a high school graduate to take the state licensure exam.
4. Students must complete both 502-337 Manicure/Nail Technician I and 502-338 Manicure/Nail Technician II to be eligible to take the Wisconsin Manicurist/Nail Technician license exam.
5. Students must complete all classroom portions of a course except 502-312 or 502-324 before beginning any of the Salon Services or Mock Board courses.
6. These courses require the following prerequisites: 502-301; 502-345; 502-320; 502-347; 502-348; 502-349; 502-350; 502-351; 502-352; 502-353; and 502-366.
7. A credit for prior learning assessment is available for this course. For more information, please contact [gtc.edu/cfpl](http://gtc.edu/cfpl).
8. Prospective students should apply to the program to be assigned an advisor, who will provide consent to enroll in 502 program courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Full-Time Pathway to Success**  
School of Protective and Human Services

## Criminal Justice – Law Enforcement 720 Academy (30-504-2)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	504-500	2	Overview of Patrol Response		F/S/SU
1	504-501	1	Physical Fitness		F/S/SU
1	504-502	1	Application of Investigations		F/S/SU
1	504-503	1	Overview of Criminal Justice		F/S/SU
1	504-504	2	Principles of Emergency Vehicle Response		F/S/SU
1	504-505	2	Sensitive Crimes		F/S/SU
1	504-506	2	Overview of Investigation		F/S/SU
1	504-507	3	Application of Traffic Response		F/S/SU
1	504-508	1	Principles of Investigations		F/S/SU
1	504-509	5	Principles of Tactics		F/S/SU
1	504-510	1	Overview of Tactics		F/S/SU
2	504-511	1	Law Enforcement Academy Scenario Week		F/S/SU

<b>Minimum Program Total Credits Required: 22</b>
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Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## **Criminal Justice – Law Enforcement 720 Academy (30-504-2)**

The *720 Hour Law Enforcement Academy* is designed to prepare the candidate to perform the essential functions of a law enforcement officer in the State of Wisconsin. The competency-based instruction meets the criteria set forth by the Wisconsin Department of Justice, Training and Standards Bureau. Training is delivered in three phases through a combination of lecture, labs, interactive group discussion, hands-on instruction, and integration exercises. The Academy meets daily Monday through Friday for 18 weeks.

### **Program Learning Outcomes**

Graduates will be able to:

1. Think critically.
2. Manage emergencies.
3. Communicate effectively.
4. Demonstrate professionalism.
5. Conduct investigations.
6. Interact with others.
7. Demonstrate tactical skills.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

#### **Step 1:**

1. Students must submit an application and pay \$30 fee.
2. Students must submit an official college transcript verifying an associate degree or higher in Criminal Justice or at least 40 postsecondary credits earned. Students earning credits at Gateway Technical College do not need a Gateway transcript but should note the completion of credits on their application.
3. Students must request and pay for a background check. Applicants of this program are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must complete DJLE-327 Application for Enrollment form.
5. Students must submit a copy of a valid driver's license.
6. Students must submit Verification of Age and Citizenship form.
7. Students must submit an abstract copy of their driving record from their state's Department of Motor Vehicles.
8. Students must pass the Physical Readiness Test.

#### **Step 2:**

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

1. Students will participate in an interview. Selected candidates will need to submit a DJLE-332 Medical Assessment form, LEA Medical Clearance form, and Responsibility for Personal Medical Needs form.

### **Graduation Requirements**

1. Minimum grade of 2.0 ("C") or above in all courses.
  2. Satisfactorily demonstrate proficiency in all hands-on unified tactical areas of training (DAAT, EVOC, Firearms, Vehicle Contacts).
  3. Pass the scenario-based final assessment exercise.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. For detailed information about this program please visit the Law Enforcement website: [www.gtc.edu/LEAcademy](http://www.gtc.edu/LEAcademy)
2. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Documentation Manager, and/or Drug Testing.
3. Background checks for the Law Enforcement Academy program are valid for 6 months. Students must request a current background check every 6 months they are enrolled or re-apply.
4. In order to be admitted to the academy candidates must pass a Physical Readiness Test administered by academy staff. This test must be completed before an interview can be scheduled.



**Culinary Assistant (31-316-1)**  
Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, R-D = Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D
1	890-155	1	ϕ Gateway to Success (G2S)		F	F
1	*316-150	4	🎓 Culinary Basics 1 <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-151	4	Basic Baking <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-170	1	🎓 Sanitation and Hygiene <sup>3,4</sup>		F	F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F	F
2	*316-152	4	Culinary Basics 2 <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	*316-153	3	Garde Manger/Cold Kitchen <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	*316-154	3	Advanced Baking <sup>2,4</sup>	Prereq: 316-170; 316-151 OR 316-140	S	S
2	801-196	3	Oral Interpersonal Communication		S	S

**Minimum Program Total Credits Required: 26**

Students interested in continuing into the 10-316-1 Culinary Arts program can earn their associate degree by completing an additional 34 credits.  
Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Culinary Assistant (31-316-1)**

The *Culinary Assistant* diploma prepares individuals to serve under the supervision of chefs and other food service professionals as kitchen support staff and commercial food preparation workers. Coursework includes instruction in kitchen organization and operations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance, and quantity food measurement and monitoring.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Apply principles of safety and sanitation in food service operations.
2. Apply basic principles of nutrition.
3. Demonstrate basic culinary skills.
4. Assist in food service management.
5. Plan menus.
6. Explore food service financial information.

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 26 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A uniform and knife kit is required for this course. Please contact your advisor for more information.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students must pass all 316 Culinary courses with a C or better to move on to the next course.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Culinary Assistant (31-316-1)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-D = Elkhorn/days, R-D = Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D
1	890-155	1	ϕ Gateway to Success (G2S)		F	F
1	*316-150	4	🎓 Culinary Basics 1 <sup>2,4</sup>	Coreq: 316-170	F	F
1	*316-170	1	🎓 Sanitation and Hygiene <sup>3,4</sup>		F	F
2	*316-152	4	Culinary Basics 2 <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	S	S
3	*316-151	4	Basic Baking <sup>2,4</sup>	Coreq: 316-170	F	F
3	801-196	3	Oral Interpersonal Communication		F	F
2	*316-153	3	Garde Manger/Cold Kitchen <sup>2,4</sup>	Prereq: 316-170; 316-150 OR 316-131	S	S
2	*316-154	3	Advanced Baking <sup>2,4</sup>	Prereq: 316-170; 316-151 OR 316-140	S	S

**Minimum Program Total Credits Required: 26**

Students interested in continuing into the 10-316-1 Culinary Arts program can earn their associate degree by completing an additional 34 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Culinary Assistant (31-316-1)**

The *Culinary Assistant* diploma prepares individuals to serve under the supervision of chefs and other food service professionals as kitchen support staff and commercial food preparation workers. Coursework includes instruction in kitchen organization and operations, sanitation and quality control, basic food preparation and cooking skills, kitchen and kitchen equipment maintenance, and quantity food measurement and monitoring.

### **Program Learning Outcomes**

Graduates will be able to:

1. Apply principles of safety and sanitation in food service operations.
2. Apply basic principles of nutrition.
3. Demonstrate basic culinary skills.
4. Assist in food service management.
5. Plan menus.
6. Explore food service financial information.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 26 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A uniform and knife kit is required for this course. Please contact your advisor for more information.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students must pass all 316 Culinary courses with a C or better to move on to the next course.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Dental Assistant (31-508-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D
1	890-155	1	📍 Gateway to Success (G2S)		SU
1	*508-101	1	Dental Health Safety <sup>4</sup>	Prereq: Advisor Consent	SU
1	801-301	1	Writing Principles <sup>2</sup>	Prereq: 851-756	SU
1	801-302	1	Speaking Principles		SU
2	*508-103	2	Dental Radiography <sup>4</sup>	Prereq: Advisor Consent; 508-101 Coreq: 508-304	F
2	*508-113	2	Dental Materials <sup>4</sup>	Prereq: Advisor Consent	F
2	*508-302	5	🎓 Dental Chairside <sup>4</sup>	Prereq: Advisor Consent; 508-101 Coreq: 508-304; 508-113	F
2	*508-304	2	🎓 Dental and General Anatomy <sup>4</sup>	Prereq: Advisor Consent	F
2	*508-306	3	Dental Assistant Clinical <sup>4,6,8</sup>	Prereq: Advisor Consent; 508-101 Coreq: 508-103; 508-113; 508-302; 508-304; 508-307	F
2	*508-307	1	Dental Assistant Professionalism <sup>1,4</sup>	Prereq: Advisor Consent	F
3	*508-120	2	Dental Office Management <sup>1</sup>	Prereq: 508-307	S
3	*508-308	5	Dental Chairside – Advanced	Prereq: 508-302	S
3	*508-309	4	Dental Laboratory Procedure	Prereq: 508-113	S
3	*508-310	1	Dental Radiography – Advanced	Prereq: 508-103	S
3	*508-311	2	Dental Assistant Clinical – Advanced <sup>6,7,8</sup>	Prereq: 508-306	S

**Minimum Program Total Credits Required: 33**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Dental Assistant (31-508-1)

*Dental Assistant* program prepares graduates to work with dentists as they examine and treat patients. Dental Assistants with documented skills also may carry out a variety of laboratory, clinical and office duties. Some dental assistants manage the office and are responsible for patient scheduling and bookkeeping functions. Graduates receive a technical diploma and are eligible to write the certification examination of the Dental Assisting National Board. Most dental assistants work in general or specialized dental offices, either for individual dentists or for groups of dentists. Some dental assistants may choose to work for insurance companies, dental laboratories, or dental supply companies. The dental assistant also may find employment with federal agencies such as the Veterans' Administration, United States Public Health Services, the Armed Forces, or a state, county or city health facility.

## Program Learning Outcomes

Graduates will be able to:

1. Perform a variety of advanced supportive dental procedures.
2. Manage infection and hazard control.
3. Produce diagnostic intraoral and extraoral radiographs on a variety of patients.
4. Perform advanced dental laboratory procedures.
5. Demonstrate professional behaviors, ethics, and appearance.
6. Perform dental office business procedures.

## Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

## Graduation Requirements

1. Minimum 33 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. This course will be taught online. Basic computer literacy and Blackboard knowledge are highly recommended.
2. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. Any non-508 course may be taken prior to entry in the program, assuming requisites have been satisfied (or waived with departmental approval).
4. Students are selected based on completion of academic eligibility requirements and district residency. Students will be selected for their initial core 508 courses using a petition process. Students must meet petition requirements prior to enrolling in 508 courses. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information.
5. The Dental Assistant Program is only offered on a full-time basis, Monday through Friday. Travel is required to clinical sites. Students must provide their own transportation.
6. Students must have a valid CPR certification on file with the college to be eligible to register for this course. Must be completed prior to taking this course.
7. Course 508-311 Dental Assistant Clinical - Advanced utilizes a Pass/Fail grading system.
8. Please note that your program may require one or all of the following additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.

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## Diesel Equipment Mechanic (31-412-1)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	890-155	1	Gateway to Success (G2S)		F+
1	*412-111	2	Diesel Maintenance Fundamentals		F
1	*412-116	3	Diesel Preventative Maintenance <sup>6</sup>	Prereq: 412-111	F
1	*412-106	4	Diesel Brake Systems <sup>6</sup>	Prereq: 412-111	F
1	*412-117	3	Diesel Suspension & Steering Systems <sup>6</sup>	Prereq: 412-111	F
2	*412-112	4	Diesel Drive Trains <sup>6</sup>	Coreq: 804-135	S
2	*412-107	4	Diesel Electricity 1 <sup>6</sup>	Prereq: 412-111	S
2	801-196	3	Oral/Interpersonal Communication		S+
2	804-135	3	Quantitative Reasoning <sup>1,6</sup>	Prereq: 834-109	S+
3	801-136	3	English Composition 1 <sup>1,6</sup>	Prereq: 831-103 OR 851-757	SU+
3	*412-114	3	Diesel Heating, Cooling & Air Cond. <sup>6</sup>	Prereq: 412-107; Coreq: 801-136	SU

**Minimum Program Total Credits Required: 33**

Students interested in continuing into the 10-412-1 Diesel Equipment Technology program can earn their associate degree by completing an additional 32 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## **Diesel Equipment Mechanic (31-412-1)**

*Diesel Equipment Mechanic* is a one-year repair and maintenance program designed to prepare an entry level diesel technician. This program is the first year of the associate degree Diesel Equipment Technology program. Program instruction will include over the road, off road and stationary applications. Emphasis will be placed on the fundamentals and repair of diesel engines, and basic diesel vehicle systems including brakes, heating, cooling, and electrical/electronic.

### **Program Learning Outcomes**

Graduates will be able to:

1. Diagnose major systems in diesel and heavy equipment industry.
2. Repair major systems in diesel and heavy equipment industry.
3. Service major systems in diesel and heavy equipment industry.
4. Practice personal and professional work habits.
5. Document complaint, cause, and correction.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 33 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Tablet computer required for this program. See an advisor for a fact sheet describing minimum requirement.
3. Work uniform is required. See an advisor for details.
4. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
5. A state issued Commercial Driver License (CDL) is not required for the program but highly recommended. Gateway Technical College will offer CDL training starting May 2019.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electromechanical Maintenance Technician (31-620-3)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET Center/days, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*612-102	3	Pneumatic/Hydraulics, Intro		F
1	*628-109	3	Mechanical Skills for Technicians		F
1	*664-100	2	Industrial Control Systems, Intro to		F
1	*664-105	2	Intro to Industrial Robots		F
1	*664-110	2	Mechatronics, Intro to		F
1	*664-116	2	Intro to Mfg Quality Control Systems		F
2	*620-108	3	Fundamentals of Industrial Controls		S
2	*664-103	3	Motor Controls for Manufacturing		S
2	*664-104	2	Industrial Control System Applications	Coreq: 664-103; 664-118	S
2	*664-112	3	Fundamentals of Machining Processes		S
2	*664-118	3	PLC & HMI Programming		S

**Minimum Program Total Credits Required: 29**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Electromechanical Maintenance Technician (31-620-3)**

Electromechanical Maintenance Technicians are multi-skilled individuals proficient in many tasks giving them the skills to assemble, install, troubleshoot, repair, and modify machinery. After completing this diploma, students will be able to perform repairs, maintenance and troubleshooting on hydraulic, pneumatic systems, motors and motor controls, mechanical drives, PLC's, HMI's and robotic systems. Students will also learn manual machining to fabricate parts, precision measurements, applicable math, communication skills, and industrial safety concepts.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Perform Work Safely
2. Apply basic troubleshooting process for electrical and mechanical systems and devices
3. Repair basic electrical and mechanical systems
4. Communicate technical information

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

#### **Graduation Requirements**

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A hand calculator capable of trigonometric functions is required: cost is approximately \$25.
3. Safety glasses are required in labs. If prescription safety glasses are necessary, allow a minimum of 90 days.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electromechanical Maintenance Technician (31-620-3)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

I-D = iMET/days, L-E = Lakeview/evenings, F=Fall, S=Spring, SU=Summer

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	I-D	L-E
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*628-109	3	Mechanical Skills for Technicians		F	F
1	*664-100	2	Industrial Control Systems, Intro to		F	F
1	*664-110	2	Mechatronics, Intro to		F	F
2	*620-108	3	Fundamentals of Industrial Controls		S	S
2	*664-112	3	Fundamentals of Machining Processes		S	S
3	*612-102	3	Pneumatic/Hydraulics, Intro		F	SU
3	*664-105	2	Intro to Industrial Robots		F	SU
3	*664-116	2	Intro to Mfg Quality Control Systems		F	SU
4	*664-103	3	Motor Controls for Manufacturing		S	F
4	*664-104	2	Industrial Control System Applications	Coreq: 664-103; 664-118	S	F
4	*664-118	3	PLC & HMI Programming		S	F

**Minimum Program Total Credits Required: 29**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### **Electromechanical Maintenance Technician (31-620-3)**

Electromechanical Maintenance Technicians are multi-skilled individuals proficient in many tasks giving them the skills to assemble, install, troubleshoot, repair, and modify machinery. After completing this diploma, students will be able to perform repairs, maintenance and troubleshooting on hydraulic, pneumatic systems, motors and motor controls, mechanical drives, PLC's, HMI's and robotic systems. Students will also learn manual machining to fabricate parts, precision measurements, applicable math, communication skills, and industrial safety concepts.

### **Program Learning Outcomes**

Graduates will be able to:

1. Perform Work Safely
2. Apply basic troubleshooting process for electrical and mechanical systems and devices
3. Repair basic electrical and mechanical systems
4. Communicate technical information

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A hand calculator capable of trigonometric functions is required: cost is approximately \$25.
3. Safety glasses are required in labs. If prescription safety glasses are necessary, allow a minimum of 90 days.
4. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@qtc.edu](mailto:cfpl@qtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Electronics Technician Fundamentals (30-605-1)**

Technical Diploma

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, I-D = iMET/days, I-E = iMET/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O	I-D	I-E
1	890-155	1	📍 Gateway to Success (G2S)		F	F	F
1	*605-113	3	🎓 DC/AC I <sup>3</sup>		F	F	F
1	*605-130	4	Digital Electronics <sup>3</sup>		F	F	F
1	*605-138	3	Circuit Construction and Repair		F	F	F
2	*605-114	3	DC/AC II <sup>3</sup>	Prereq: 605-113; Coreq: 804-115	S	S	S
2	*605-120	4	Electronic Devices I <sup>3</sup>	Prereq: 605-113	S	S	S
2	804-115	5	College Technical Math 1 <sup>1,3</sup>	Prereq: 834-110	S	S	S

**Minimum Program Total Credits Required: 23**

Students interested in continuing into the 10-605-1 Electronics program can earn their associate degree by completing an additional 41 credits.

Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Electronics Technician Fundamentals (30-605-1)

*Electronics Technician Fundamentals* focuses on the installation and assembly of a wide variety of electronic equipment. In addition to comprehensive training in electronic theory, lab experience is an integral part of the program. The study areas include AC/DC principles, transistor operation, digital circuits, soldering, and fabrication techniques. The operation and use of various test and diagnostic equipment is included throughout the curriculum. The program prepares the students for a broad range of entry-level electronic assembly positions.

### Program Learning Outcomes

Graduates will be able to:

1. Relate electronic theory to practice.
2. Operate test equipment.
3. Repair electronic circuits and systems.
4. Install electronic circuits or systems.
5. Communicate basic technical information.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 23 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are necessary, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.





**Full-Time Pathway to Success**  
School of Protective and Human Services

## Emergency Medical Technician (30-531-3)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HE-D = HERO Center/days, HE-E = HERO Center/evenings, R-D = Racine/days K-E = Kenosha/eveings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D	HE-E	R-D	K-E
1	*531-312	2	EMR to EMT I	Prereq: Program Admission	F/S/SU	F/S	F	S
1	*531-313	3	EMR to EMT II	Prereq: Program Admission; 531-312	F/S/SU	F/S	F	S

<b>Minimum Program Total Credits Required: 5</b>
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Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Emergency Medical Technician (30-531-3)**

*Emergency Medical Technician* is a 180-hour entry-level training in emergency medicine. This program provides students the skills and knowledge needed to assess and manage all types of injuries and acute illnesses while providing safe and rapid patient transport to an appropriate medical facility. Components of the course include lecture, practical lab, and hospital clinical experience. Upon program completion, students are prepared to take the National Registry of Emergency Medical Technicians® examination to be licensed as an Emergency Medical Technician in Wisconsin. Students wishing to pursue other levels of EMS licensure, such as Advanced EMT or Paramedic, must first be licensed as an Emergency Medical Technician before being eligible to register in subsequent EMS licensure programs.

### **Program Learning Outcomes**

Graduates will be able to:

- 1 Prepare for incident response and EMS operations
2. Integrate pathophysiological principles and assessment findings to provide appropriate patient care
3. Demonstrate EMT skills associated with established standards and procedures for a variety of patient encounters
4. Communicate effectively with others
5. Demonstrate professional behavior
6. Meet state competencies for EMT certification

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.

### **Graduation Requirements**

1. Minimum 5 credits with a cumulative GPA of 2.0 or above. For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).
2. It is recommended that applicants enroll in 531-313 within one year of completing 531-312 due to possible curriculum changes and degradation of skill competency/knowledge.
3. COVID-19 policy at field and clinical sites are subject to change at the discretion of the sites themselves. EMT program students must abide by field and clinical site COVID-19 policies while participating in clinical or field time at these sites.
4. Students who successfully complete 531-312 may test to credential as an Emergency Medical Responder (EMR) through the National Registry of Emergency Medical Technicians (NREMT).
5. Applicants of this program are subject to a review of their criminal backgrounds as a part of the training center training permit process. Positive background checks may negatively impact your ability to pursue EMS education at Gateway Technical College.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**EMT - Paramedic (31-531-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HE-D = HERO Center/days, HE-E = HERO Center/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D	HE-E
1	890-155	1	Gateway to Success (G2S)		SU	SU
1	*531-911	2	EMS Fundamental <sup>1,2,6</sup>	Prereq: 838-105 OR 851-757; Program Admission	SU	SU
2	*531-912	4	Paramedic Medical Principles	Coreq: 531-911	F	F
2	*531-913	3	Adv. Patient Asses. Principles <sup>6</sup>	Coreq: 531-911	F	F
2	*531-914	3	Adv. Pre-Hospital Pharmacology <sup>6</sup>	Coreq: 531-911	F	F
2	*531-915	2	Paramedic Respiratory Mgt. <sup>6</sup>	Coreq: 531-914	F	F
2	*531-925	4	Paramedic HPS Lab	Coreq: 531-912	F	F
2	*531-926	1	Paramedic Hospital Field <sup>3,4,6</sup>	Coreq: 531-912	F	F
2	*531-955	2	Paramedic Cardiology 1 <sup>6</sup>	Coreq: 531-915	F	F
3	*531-956	2	Paramedic Cardiology 2	Prereq: 531-955	S	S
3	*531-918	1	Adv. Emergency Resuscitation <sup>6</sup>	Coreq: 531-955	S	S
3	*531-919	4	Paramedic Medical Emergencies	Coreq: 531-955	S	S
3	*531-920	3	Paramedic Trauma	Coreq: 531-955	S	S
3	*531-921	3	Special Patient Populations	Coreq: 531-955	S	S
3	*531-922	1	EMS Operations <sup>6</sup>	Coreq: 531-955	S	S
3	*531-923	1	Paramedic Capstone	Coreq: 531-955	S	S
3	*531-927	2	Paramedic Hospital/Field II <sup>3,4,6</sup>	Coreq: 531-955	S	S

**Minimum Program Total Credits Required: 39**

Students interested in continuing into the 10-531-1 Paramedic Technician program can earn an associate degree by completing an additional 26 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## EMT - Paramedic (31-531-1)

*Paramedic* requires students to be licensed in Wisconsin at the Emergency Medical Technician (EMT), Advanced EMT (EMT Intermediate Technician), or EMT Intermediate level and be current in Healthcare Provider CPR. Paramedics can perform more acute care and administer advanced drug therapies. They can also perform surgical procedures to open airways and provide resuscitative drugs. Paramedics have an increased knowledge of lifesaving skills as well as advanced emergency assessment expertise. This program is offered on a part time basis: either two evenings a week and Saturdays or an alternating day class 2-3 days a week to accommodate the typical 24 hour on/48 hour off schedule worked by many FF/EMS agencies. At the end of the program, students will take a final Gateway Technical College written and practical exam, and after successful completion students will be eligible to test and credential through the National Registry of Emergency Medical Technicians®. The program includes approximately 650 hours of classroom lecture and skills lab, and approximately 500 hours of supervised hospital clinical and field time. Satisfactory completion of clinical/field time is competency based so actual number of hours may vary from student to student. Graduates of this program can expect to find employment with private ambulance companies, fire departments, or hospital emergency rooms. Students finishing the first two semesters of the program (the 531 courses) are eligible to receive the Paramedic Technical Diploma (31-531-1). All courses in the EMT-Paramedic diploma program can be applied to the Paramedic Technician associate degree.

**Program Goal:** To prepare competent entry-level Emergency Medical Technician-Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with or without exit points at the Emergency Medical Technician-Intermediate and/or Emergency Medical Technician-Basic, and/or First Responder levels.

### Program Learning Outcomes

Graduates will be able to:

1. Prepare for incident response and EMS operations.
2. Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
3. Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
4. Communicate effectively with others.
5. Demonstrate professional behavior.
6. Meet state and national competencies listed for paramedic credentialing.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must have current CPR certification.
4. Students must have current Wisconsin EMS licensure.

## Graduation Requirements

1. Minimum 39 credits with a cumulative GPA of 2.0 or above.
  2. \*Average of 2.0 ("C") or above for these major courses.
  3. Complete 890-155 Gateway to Success (G2S) in the first semester.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Prior to enrolling in paramedic level courses, a student must satisfactorily complete an EMS specific pre-admission screening which includes both written and practical components at the Emergency Medical Technician level (EMT) and attend an informational orientation with the program staff.
3. Drug testing and immunizations are required prior to admission to the first clinical course (531-926 or 531-927).
4. Applicants of this program are subject to a review of their criminal backgrounds as part of the training center training permit process. Positive background checks may negatively impact your ability to pursue this career at Gateway Technical College.
5. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
6. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
7. Paramedic students must attend an informational orientation with the program staff before the start of the program.
8. It is recommended that applicants re-enroll in the Paramedic program within one year of exiting due to possible curriculum changes and degradation of skill competency/knowledge.
9. COVID-19 policy at field and clinical sites are subject to change at the discretion of the sites themselves. Paramedic program students must abide by field and clinical site COVID-19 policies while participating in clinical field time at these sites.

## Accreditation Statement

The EMT Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

Commission on Accreditation of Allied Health Education Programs  
25400 US Highway 19 N., Suite 158  
Clearwater, FL 33763  
727-210-2350  
[www.caahep.org](http://www.caahep.org)



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Facilities Maintenance (31-443-2)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-E = Kenosha/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*443-310	1	🎓 Fundamentals of Construction		F
1	*443-312	2	Basic Carpentry and Repair	Coreq: 443-310	F
1	*461-120	3	Small Power Equipment		F
1	801-301	1	Writing Principles	Prereq: 851-756	F
2	804-370	2	Mathematics I, Applied <sup>1</sup>	Prereq: 854-760	S
2	801-302	1	Speaking Principles		S
2	*443-315	2	Industrial Preventative Maintenance	Coreq: 443-310	S
2	*443-314	2	Mechanical Systems	Coreq: 443-310	S
3	*443-313	2	Interior Finishing	Coreq: 443-310 Prereq: 804-370	SU
3	*601-112	2	Environmental Systems	Coreq: 801-301	SU
3	*601-304	3	HVAC Electricity/Electronics <sup>2</sup>		SU
4	*443-101	1	Forklift Operation & Maintenance <sup>3</sup>		F
4	*443-311	3	Electrical Applications	Prereq: 601-304; Coreq: 443-310	F
4	*601-305	3	Facility Operating Engineer LP <sup>3</sup>		F

**Minimum Program Total Credits Required: 29**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Facilities Maintenance (31-443-2)

*Facilities Maintenance* provides the training needed to service, maintain, and operate equipment found in public, commercial, and other buildings. Typical operations employing facilities (building) maintenance workers include hospitals, government buildings, schools, hotels, apartment buildings, light manufacturing facilities, and office buildings. The required skills and knowledge include basic carpentry, basic electricity, basic HVAC (heating, ventilating, and air conditioning), basic plumbing, electrical control devices, and safety.

### Program Learning Outcomes

Graduates will be able to:

1. Repair/replace basic electrical components.
2. Perform preventative maintenance procedures.
3. Perform basic drywall repairs.
4. Perform basic plumbing repairs.
5. Use portable tools safely.
6. Apply sustainable practices to facility operations.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

## Graduation Requirements

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

## Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. 605-107 Course Cost includes Snap On Digital Multi Meter #EEDM525D.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students will be required to purchase a variety of personal safety items and hand tools that will be utilized throughout the program. Specifications for those hand tools will be provided by the instructor at the beginning of the program, and should not be purchased in advance of the start of the program.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Fire Science (30-503-5)**  
Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HE-D=HERO Center/Days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D
1	890-155	1	Gateway to Success (G2S)		F/S+
1	*503-301	3	Firefighting Principles <sup>2</sup>		F/S
1	*503-302	2	Fire Prevention <sup>2</sup>		F/S
1	*503-303	3	Principles of Em Serv Safety & Survival <sup>2</sup>		F/S
1	*503-304	3	Building Construction <sup>2</sup>		F/S
2	*503-305	3	Fire Protection Hydraulics <sup>2</sup>	Prereq: 503-142 OR 503-301	S/F
2	*503-306	2	Firefighting Principles II <sup>2</sup>	Prereq: 503-142 OR 503-301	S/F
2	*503-307	2	Firefighter Health & Wellness		S/F
2	*531-312	2	EMR to EMT I	Prereq: Program Admission	S/F
2	*531-313	3	EMR to EMT II	Prereq: Program Admission; 531-312	S/F

**Minimum Program Total Credits Required: 24**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

### Fire Science (30-503-5)

The *Fire Science program* will provide applicants with foundational entry level knowledge and practice to pursue a career in the fire service. Students are able to apply health & wellness principles to their own professional lives, and prepare for the candidate physical ability test (CPAT) certificate. Requisite building construction, fire behavior, fire protection systems, fire department risk management and soft skills are stressed, along with life-long learning and living habits to become safe and effective fire service professionals. Students will be eligible for employment as a firefighter for volunteer or career service. Additionally, the diploma provides a pathway to the Fire Medic and Paramedic Associate Degree Programs.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate professional conduct.
2. Perform fire prevention activities
3. Apply incident management and mitigation skills to emergency incidents
4. Meet professional fire and EMS credentialing standards
5. Communicate clearly and effectively
6. Apply critical thinking skills to both emergency and non-emergency situations.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 24 credits with a cumulative GPA of 2.0 or above.
- \*Minimum of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Eye protection may be required in some courses. If prescription safety glasses are required, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.





**Fire Science (30-503-5)**  
Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**HE-D=HERO Center/Days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HE-D
1	890-155	1	📍 Gateway to Success (G2S)		F/S <sup>+</sup>
1	*503-301	3	🎓 Firefighting Principles <sup>2</sup>		F/S
1	*503-302	2	Fire Prevention <sup>2</sup>		F/S
2	*503-304	3	Building Construction <sup>2</sup>		S/F
2	*531-312	2	EMR to EMT I	Prereq: Program Admission	S/F
2	*531-313	3	EMR to EMT II	Prereq: Program Admission; 531-312	S/F
3	*503-303	3	Principles of Em Serv Safety & Survival <sup>2</sup>		F/S
3	*503-305	3	Fire Protection Hydraulics <sup>2</sup>	Prereq: 503-142 OR 503-301	F/S
3	*503-306	2	Firefighting Principles II <sup>2</sup>	Prereq: 503-142 OR 503-301	F/S
3	*503-307	2	Firefighter Health & Wellness		F/S

**Minimum Program Total Credits Required: 24**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

(+) indicates students may take these courses at any one of the three main campuses; Kenosha, Racine, Elkhorn or Online.

## Fire Science (30-503-5)

The *Fire Science* program will provide applicants with foundational entry level knowledge and practice to pursue a career in the fire service. Students are able to apply health & wellness principles to their own professional lives, and prepare for the candidate physical ability test (CPAT) certificate. Requisite building construction, fire behavior, fire protection systems, fire department risk management and soft skills are stressed, along with life-long learning and living habits to become safe and effective fire service professionals. Students will be eligible for employment as a firefighter for volunteer or career service. Additionally, the diploma provides a pathway to the Fire Medic and Paramedic Associate Degree Programs.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate professional conduct
2. Perform fire prevention activities
3. Apply incident management and mitigation skills to emergency incidents
4. Meet professional fire and EMS credentialing standards
5. Communicate clearly and effectively
6. Apply critical thinking skills to both emergency and non-emergency situations.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

- Minimum 24 credits with a cumulative GPA of 2.0 or above.
- \*Average of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Eye protection may be required in some courses. If prescription safety glasses are required, please allow a minimum of 90 days before the program start to obtain prescription and glasses.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
3. Some courses may be available during the evening. Please contact your advisor for more information.

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**Horticulture Technician (31-001-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, E-D = Elkhorn/days, F=Fall, S=Spring**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D
1	890-155	1	Gateway to Success (G2S)		F	F
1	*001-185	3	Horticulture, Introduction to		F	F
1	*001-143	3	Herbaceous Plants	Coreq: 001-185	F	F
1	*001-146	1	Sustainable Landscape		F	F
1	*001-147	1	Soils & Plant Nutrition		F	F
1	*001-148	1	Plant Pests & Beneficial		F	F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 804-139	F	F
2	*001-129	1	Pesticide Applicator Cert		S	S
2	*001-142	3	Vegetable Science		S	S
2	*001-151	3	Greenhouse Crops	Coreq: 801-136; 804-135	S	S
2	461-120	3	Small Power Equipment		S	S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S	S

**Minimum Program Total Credits Required: 26**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Horticulture Technician (31-001-1)**

*Horticulture Technician* is a one-year embedded technical diploma that builds upon the skills gained in the Horticulture Basics career pathway certificate and can lead directly into Greenhouse Operations. Learners gain a broad understanding of the horticulture field and basic technical skills to make them an asset to any company in the green industry. Work duties are typically very hands-on. Upon completion of this one-year program, you will also receive your Wisconsin Commercial Pesticide Applicator Certification.

### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
2. Diagnose plant health.
3. Communicate as a horticulture professional.
4. Apply design principles.
5. Provide horticulture maintenance.
6. Apply the principles of plant science.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 26 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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## Horticulture Technician (31-001-1)

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*001-185	3	🎓 Horticulture, Introduction to		F	F
1	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	F	F
2	*001-142	3	🎓 Vegetable Science		S	S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S	S
3	*001-143	3	Herbaceous Plants	Coreq: 001-185	F	F
3	*001-146	1	Sustainable Landscape		F	F
3	*001-147	1	Soils & Plant Nutrition		F	F
3	*001-148	1	Plant Pests & Beneficial		F	F
4	*001-129	1	Pesticide Applicator Cert		S	S
4	*001-151	3	Greenhouse Crops	Coreq: 801-136; 804-135	S	S
4	461-120	3	Small Power Equipment		S	S

**Minimum Program Total Credits Required: 26**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Horticulture Technician (31-001-1)**

*Horticulture Technician* is a one-year embedded technical diploma that builds upon the skills gained in the Horticulture Basics career pathway certificate and can lead directly into Greenhouse Operations. Learners gain a broad understanding of the horticulture field and basic technical skills to make them an asset to any company in the green industry. Work duties are typically very hands-on. Upon completion of this one-year program, you will also receive your Wisconsin Commercial Pesticide Applicator Certification.

### **Program Learning Outcomes**

Graduates will be able to:

1. Analyze growing media.
2. Diagnose plant health.
3. Communicate as a horticulture professional.
4. Apply design principles.
5. Provide horticulture maintenance.
6. Apply the principles of plant science.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 26 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Computer Support Technician (31-154-6)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine/days E-E = Elkhorn/evenings F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-E
1	890-155	1	📍 Gateway to Success (G2S)		F	F
1	*154-119	3	System Software Support <sup>2</sup>	Coreq: 801-136	F	F
1	*107-011	3	IT in Business <sup>2</sup>		F	F
1	*107-193	3	🎓 IT Essentials <sup>2</sup>		F	F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F	F
2	*154-114	3	Hardware & Software Support <sup>2</sup>	Prereq: 154-119; 107-193	S	S
2	*154-122	3	Introduction to Help/Service Desk	Prereq: 107-193 Coreq: 804-135 OR 804-115	S	S
2	*150-145	3	IT Scripting		S	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S	S
3	801-197	3	Technical Reporting	Prereq: 801-136	SU	SU
3	*150-182	3	IoT: Connecting Devices		SU	SU

**Minimum Program Total Credits Required: 31**

Students interested in continuing into the 10-154-3 IT – Computer Support Specialist program can earn their associate degree by completing an additional 30 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum grade of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Computer Support Technician (31-154-6)

The *IT-Computer Support Technician* program will provide the first step toward a career in IT which focuses on the support of end users. This program is designed to serve as a pathway into the IT-Computer Support Specialist (10-154-3) associate degree program. Students completing this program will have the option to continue into the parent program or become employed directly in the field. Graduates will have opportunities for employment reaching across all industries.

The IT-Computer Support Technician program is comprised of the first two semesters of the IT-Computer Support Specialist associate degree program. Specific course work includes: System Software Support, IT in Business, IT Essentials, Help/Service Desk, Scripting and Technical Reporting. This coursework starts you down the path to earn your A+.

### Program Learning Outcomes

Graduates will be able to:

1. Provide entry level end user support.
2. Manage operating systems and application software.
3. Support information technology hardware.
4. Provide basic network support for existing network installations.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 31 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**





**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Computer Support Technician (31-154-6)**

Technical Diploma

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D = Racine/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*107-011	3	IT in Business <sup>2</sup>		F
1	*150-182	3	IoT: Connecting Devices		F
2	*154-119	3	System Software Support <sup>2</sup>	Coreq: 801-136	S
2	*107-193	3	🎓 IT Essentials <sup>2</sup>		S
2	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	S
3	*154-114	3	Hardware & Software Support <sup>2</sup>	Prereq: 154-119; 107-193	SU
3	*154-122	3	Introduction to Help/Service Desk	Prereq: 107-193; Coreq: 804-135 OR 804-115	SU
3	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	SU
4	*150-145	3	IT Scripting		F
4	801-197	3	Technical Reporting	Prereq: 801-136	F

**Minimum Program Total Credits Required: 31**

Students interested in continuing into the 10-154-3 IT – Computer Support Specialist program can earn their associate degree by completing an additional 30 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **IT – Computer Support Technician (31-154-6)**

The *IT-Computer Support Technician* program will provide the first step toward a career in IT which focuses on the support of end users. This program is designed to serve as a pathway into the IT-Computer Support Specialist (10-154-3) associate degree program. Students completing this program will have the option to continue into the parent program or become employed directly in the field. Graduates will have opportunities for employment reaching across all industries.

The IT-Computer Support Technician program is comprised of the first two semesters of the IT-Computer Support Specialist associate degree program. Specific course work includes: System Software Support, IT in Business, IT Essentials, Help/Service Desk, Scripting and Technical Reporting. This coursework starts you down the path to earn your A+.

### **Program Learning Outcomes**

Graduates will be able to:

1. Provide entry level end user support.
2. Manage operating systems and application software.
3. Support information technology hardware.
4. Provide basic network support for existing network installations.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 31 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@qtc.edu](mailto:cfpl@qtc.edu).

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**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**IT – Web Programmer (31-152-6)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**R-D = Racine days, O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O	R-D
1	890-155	1	Gateway to Success (G2S)		F	F
1	*152-080	3	Databases		F	F
1	804-135	3	Quantitative Reasoning <sup>1,3</sup>	Prereq: 834-109	F	F
	OR	OR				
	804-115	5	College Technical Math <sup>11,3</sup>	Prereq: 834-110		
2	*152-081	3	Programming in Python		S	S
2	*152-101	4	Web Programming		S	S
2	*152-184	3	Java Programming 1 <sup>3</sup>	Coreq: 804-135 OR 804-115	S	S
3	*152-097	3	Javascript	Prereq: 152-101 OR 152-182	SU	SU
3	*152-174	3	Java Programming 2	Prereq: 152-184	SU	SU
4	*152-102	3	Advanced Web Programming	Prereq: 152-101 OR 152-182; 152-097	F	F
4	*152-188	3	PHP Web Programming	Prereq: 152-101 OR 152-182; 152-184 OR 152-081	F	F

**Minimum Program Total Credits Required: 29**

Students interested in continuing into the 10-152-4 IT – Web Software Developer program can earn their associate degree by completing an additional 33 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## IT – Web Programmer (31-152-6)

The *IT – Web Programmer* diploma trains students in the development of business web sites using a variety of programming and scripting languages. Topics will include web site design and development and basic knowledge of SQL and back-end databases. Typical entry-level positions are junior web developer and junior web programmer.

### Program Learning Outcomes

Graduates will be able to:

1. Design web sites or applications.
2. Utilize essential data technologies.
3. Develop basic applications.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 29 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. IT-Web Programmer is a laptop program. Students will need a Windows-based computer (with a hard drive) for use in the program. Please note MAC computers are not compatible with some of the required software.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Medical Assistant (31-509-1)**  
Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-D = Kenosha/days, E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D
1	890-155	1	📍 Gateway to Success (G2S)		S	F
1	*509-301	2	Medical Assistant Admin Procedures	Prereq: Program Admission; Coreq: 501-107	S	F
1	*509-303	2	Medical Assistant Lab Procedures 1 <sup>3,10</sup>	Prereq: Program Admission; Coreq: 509-304	S	F
1	*509-304	4	Medical Assistant Clinical Procedures 1 <sup>3,10</sup>	Prereq: Program Admission; Coreq: 509-303	S	F
1	*509-302	3	🎓 Human Body in Health and Disease	Prereq: Program Admission; Coreq: 501-101	S	F
1	*501-107	2	Digital Literacy for Healthcare		S	F
1	*501-101	3	🎓 Medical Terminology <sup>4,9</sup>	Prereq: 838-105	S	F
2	*509-305	2	Medical Assistant Lab Procedures 2 <sup>3,11</sup>	Prereq: Program Admission; 509-303; Coreq: 509-306	SU	S
2	*509-306	3	Medical Assistant Clinical Procedures 2 <sup>3,11</sup>	Prereq: Program Admission; 509-303; 509-304 Coreq: 509-305	SU	S
2	*509-307	2	Medical Office Insurance & Finance	Prereq: Program Admission; 501-107; 509-302	SU	S
2	*509-308	2	Pharm for Allied Health	Prereq: Program Admission; 509-302	SU	S
2	*509-309	2	Medical Law, Ethics and Professionalism	Prereq: Program Admission; Coreq: 801-301 OR 801-136	SU	S
2	801-301	1	Writing Principles <sup>4</sup>	Prereq: 851-756	SU	S
3	*509-310	3	Medical Assistant Practicum <sup>6,7</sup>	Prereq: Program Admission; Instructor Consent; Coreq: 509-305; 306; 307; 308; 309	F	SU

**Minimum Program Total Credits Required: 32**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Medical Assistant (31-509-1)

The *Medical Assistant* program's goal is to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Medical assistants are multi-skilled health individuals who work in ambulatory settings such as clinics, group practices, and physicians' offices. The medical assistant is responsible for medical and surgical asepsis, taking vital signs, assisting the physician with examinations and surgery, administering ECGs and administering medications. The business/ administrative duties include patient reception, appointment making, record keeping, filing, bookkeeping, processing insurance claims, typing medical correspondence, transcription and microcomputer applications. Laboratory functions include specimen collection, performance of waived laboratory tests and work. Graduates find jobs as medical assistants, secretaries, medical laboratory assistants, phlebotomists, receptionists, medical insurance clerks and electrocardiogram technicians.

### Program Learning Outcomes

Graduates will be able to:

1. Perform medical office administrative functions
2. Provide patient care in accordance with regulations, policies, laws, and patient rights.
3. Perform medical laboratory procedures
4. Demonstrate professionalism in a healthcare setting
5. Demonstrate safety and emergency practices in a healthcare setting

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must view the Medical Assistant Student Handbook online and submit the supplemental item form acknowledging receipt and agreement.

### Graduation Requirements

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
  2. \*Minimum of 2.0 ("C") or above for these major courses.
  3. Complete 890-155 Gateway to Success (G2S) in the first semester.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. A liability fee is assessed for core courses.
2. There is a daily long-term exposure to latex products in this program. Those with latex sensitivity may find exp. to latex impossible to avoid in this environment.
3. When there has been any interruption between 509-305/509-306 and 509-310, the student must enroll in and complete 509-433 Medical Assisting Re-Entry Assessment prior to taking 509-310. 509-433 Medical Assisting Re-Entry Assessment must also be taken if there has been 1 year or more interruption between 509-303/509-304 and 509-305/509-306.
4. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
5. Persons convicted of a felony are not eligible to sit for the certification exam unless the certifying board grants a waiver based on the mitigating circumstances listed in the Disciplinary Standards of the American Association of Medical Assistants.
6. Course 509-310 Medical Assistant Practicum is a 160-hour unpaid practicum experience that must be completed in order for students to successfully complete the MA program. In order to enroll in the practicum course, students must complete all other coursework, submit a completed health physical form and submit evidence of completion of courses 531-800 CPR-Healthcare Provider and 531-822 Medic First Aid.
7. Students should be advised that they will be assigned a clinical site affiliated with the campus where they have completed 509-305 and 509-306. Reassignment of clinical sites is subject to instructor approval.
8. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
9. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
10. Students are required to register for and take 509-303 and 509-304 in the same semester. Please see an advisor for details.
11. Students are required to register for and take 509-305 and 509-306 in the same semester. Please see an advisor for details.

### Accreditation Statement

Gateway Technical College's Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) ([www.caahep.org](http://www.caahep.org)) upon recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs  
25400 US Highway 19 North, Suite 158  
Clearwater, FL 33763  
(727) 210-2350  
<https://www.caahep.org>

Additional information on the Medical Assisting profession can be accessed at: [www.aama-ntl.org](http://www.aama-ntl.org)

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**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Medical Assistant (31-509-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, E-D = Elkhorn/days, R-E = Racine/evening, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D	R-E
1	890-155	1	Gateway to Success (G2S)		SU	S	S
1	*509-301	2	Medical Assistant Admin Procedures	Prereq: Program Admission; Coreq: 501-107	SU	S	S
1	*509-302	3	Human Body in Health and Disease	Prereq: Program Admission; Coreq: 501-101	SU	S	S
1	*501-107	2	Digital Literacy for Healthcare		SU	S	S
1	*501-101	3	Medical Terminology <sup>4,9</sup>	Prereq: 838-105	SU	S	S
2	*509-307	2	Medical Office Insurance & Finance	Prereq: Program Admission; 501-107; 509-302	F	SU	SU
2	*509-308	2	Pharm for Allied Health	Prereq: Program Admission; 509-302	F	SU	SU
2	*509-309	2	Medical Law, Ethics and Professionalism	Prereq: Program Admission; Coreq: 801-301 OR 801-136	F	SU	SU
2	801-301	1	Writing Principles <sup>4</sup>	Prereq: 851-756	F	SU	SU
3	*509-303	2	Medical Assistant Lab Procedures <sup>1,3,10</sup>	Prereq: Program Admission; Coreq: 509-304	S	F	F
3	*509-304	4	Medical Assistant Clinical Procedures <sup>1,3,10</sup>	Prereq: Program Admission; Coreq: 509-303	S	F	F
4	*509-305	2	Medical Assistant Lab Procedures <sup>2,3,11</sup>	Prereq: Program Admission; 509-303; Coreq: 509-306	SU	S	S
4	*509-306	3	Medical Assistant Clinical Procedures <sup>2,3,11</sup>	Prereq: Program Admission; 509-303; 509- 304; Coreq: 509-305	SU	S	S
5	*509-310	3	Medical Assistant Practicum <sup>6,7</sup>	Prereq: Program Admission; Instructor Consent; Coreq: 509-305; 306; 307; 308; 309	F	SU	SU

**Minimum Program Total Credits Required: 32**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Medical Assistant (31-509-1)

The *Medical Assistant* program's goal is to prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Medical assistants are multi-skilled health individuals who work in ambulatory settings such as clinics, group practices, and physicians' offices. The medical assistant is responsible for medical and surgical asepsis, taking vital signs, assisting the physician with examinations and surgery, administering ECGs and administering medications. The business/ administrative duties include patient reception, appointment making, record keeping, filing, bookkeeping, processing insurance claims, typing medical correspondence, transcription and microcomputer applications. Laboratory functions include specimen collection, performance of waived laboratory tests and work. Graduates find jobs as medical assistants, secretaries, medical laboratory assistants, phlebotomists, receptionists, medical insurance clerks and electrocardiogram technicians.

### Program Learning Outcomes

Graduates will be able to:

1. Perform medical office administrative functions
2. Provide patient care in accordance with regulations, policies, laws, and patient rights.
3. Perform medical laboratory procedures
4. Demonstrate professionalism in a healthcare setting
5. Demonstrate safety and emergency practices in a healthcare setting

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must view the Medical Assistant Program Handbook and submit the supplemental item form acknowledging receipt and agreement.

### Graduation Requirements

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for each of these major courses. For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. A liability fee is assessed for core courses.
2. There is a daily long-term exposure to latex products in this program. Those with latex sensitivity may find exp. to latex impossible to avoid in this environment.
3. When there has been any interruption between 509-305/509-306 and 509-310, the student must enroll in and complete 509-433 Medical Assisting Re-Entry Assessment prior to taking 509-310. 509-433 Medical Assisting Re-Entry Assessment must also be taken if there has been 1 year or more interruption between 509-303/509-304 and 509-305/509-306.
4. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
5. Persons convicted of a felony are not eligible to sit for the certification exam unless the certifying board grants a waiver based on the mitigating circumstances listed in the Disciplinary Standards of the American Association of Medical Assistants.
6. Course 509-310 Medical Assistant Practicum is a 160-hour unpaid practicum experience that must be completed in order for students to successfully complete the MA program. In order to enroll in the practicum course, students must complete all other coursework, submit a completed health physical form and submit evidence of completion of courses 531-800 CPR-Healthcare Provider and 531-822 Medic First Aid.
7. Students should be advised that they will be assigned a clinical site affiliated with the campus where they have completed 509-305 and 509-306. Reassignment of clinical sites is subject to instructor approval.
8. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
9. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
10. Students are required to register for and take 509-303 and 509-304 in the same semester. Please see an advisor for details.
11. Students are required to register for and take 509-305 and 509-306 in the same semester. Please see an advisor for details.

### Accreditation Statement

Gateway Technical College's Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP) ([www.caahep.org](http://www.caahep.org)) upon recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs  
25400 US Highway 19 North, Suite 158  
Clearwater, FL 33763  
(727) 210-2350  
<https://www.caahep.org>

Additional information on the Medical Assisting profession can be accessed at: [www.aama-ntl.org](http://www.aama-ntl.org)

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**Nursing Assistant (30-543-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-D = Kenosha/days, K-E = Kenosha/evenings, R-D = Racine/days, R-E = Racine/evenings, E-D = Elkhorn/days, E-E = Elkhorn/evenings,  
F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	K-E	R-D	R-E	E-D	E-E
1	*543-300	2	Nursing Assistant	Prereq: Program Admission	F/S/SU	F/S/SU	F/S/SU	F/S/SU	F/S/SU	F/S/SU

**Minimum Program Total Credits Required: 2**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.  
 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.  
 (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Nursing Assistant (30-543-1)**

*Nursing Assistant*, offered numerous times throughout the district, prepares students to perform basic nursing skills in caring for clients in various health care settings. A certificate is awarded upon successful completion of this course and graduates are eligible to competency test for placement on the Wisconsin Nursing Assistant / Home Health Aide Registry.

### **Program Learning Outcomes**

Graduates will be able to:

1. Communicate effectively with clients, family, and co-workers
2. Protect rights of clients
3. Demonstrate ethical and legal responsibilities
4. Work cooperatively in a team environment
5. Provide holistic, safe care to diverse populations
6. Demonstrate reporting and documentation
7. Assist clients with rehabilitation and restorative care
8. Provide safe care for clients with acute and chronic health conditions
9. Complete educational requirements for the WI NA competency evaluation

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must complete reading placement assessment with a min. score of 237; or minimum cumulative high school GPA of 2.6 (unweighted); or earned at least 12 college credits with a minimum GPA of 2.0.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.

### **Graduation Requirements**

1. \*Minimum of 2.0 ("C") or above for these major courses.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. A liability fee is assessed on a per credit basis.
2. Clinical sites may require drug testing.
3. Successful completion of 543-300 will result in the student's eligibility to take the Wisconsin Competency Testing for certification as a Nursing Assistant.
4. Certificates will be issued upon successful completion of 543-300.
5. 543-300 is a 75-hour course – classroom / lab / clinical combined.
6. District-wide Nursing Assistant clinical uniform required: Navy Blue uniform top and blue uniform bottom.
7. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Documentation Manager, and/or Drug Testing.

The State of Wisconsin Regulatory Agency requires mandatory attendance of 75 hours for this course. There is an allowance of up to 8 hours absence/tardiness with mandatory documented homework assignments for the class/lab portion of the course. 16 hours of clinical are mandatory. No absence or tardy is permitted during clinical. Failure to complete the full 16 hours will result in failure of the course. If there is a college-related cancellation of course time, mandatory make-up day(s) will be assigned to the course to ensure compliance with state regulations.

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**Office Assistant (31-106-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	Gateway to Success (G2S)		F
1	*106-021	3	Business Office Fundamentals		F
1	*106-028	3	Office Technologies Essentials		F
1	*106-137	3	Keyboarding Applications <sup>2</sup>		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
1	801-196	3	Oral/Interpersonal Communication		F
2	*106-019	1	Admin. Services Internship I	Prereq: Instructor Consent; 106-137 Coreq: 106-024; 804-135; 801-136	S
2	*106-024	3	Professionalism in Business		S
2	*106-025	3	Spreadsheets for Business	Prereq: 106-137	S
2	*106-026	3	Business Publications	Prereq: 106-137	S
2	*106-030	3	Word Processing for Business	Prereq: 106-137	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S

**Minimum Program Total Credits Required: 32**

Students interested in continuing into the 10-106-6 Administrative Professional program can earn their associate degree by completing an additional 28 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Office Assistant (31-106-1)**

*Office Assistant* prepares individuals to fulfill the role of an office generalist. Participants will develop skills in keyboarding, filing, business mathematics, records control, and customer service. Office Assistant graduates will develop the computer skills necessary to succeed in the office environment. Participants will be given the opportunity to visit and observe area office assistants in action.

### **Program Learning Outcomes**

Graduates will be able to:

1. Perform accurate workplace communications.
2. Use technology skills for business tasks.
3. Perform routine office procedures.
4. Demonstrate professionalism and effective workplace relationships.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum grade of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Office Assistant (31-106-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**O = Online, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	O
1	890-155	1	📍 Gateway to Success (G2S)		F
1	*106-137	3	🎓 Keyboarding Applications <sup>2</sup>		F
1	801-136	3	English Composition 1 <sup>1,2</sup>	Prereq: 831-103 OR 851-757	F
2	*106-026	3	Business Publications	Prereq: 106-137	S
2	*106-030	3	Word Processing for Business	Prereq: 106-137	S
2	804-135	3	Quantitative Reasoning <sup>1,2</sup>	Prereq: 834-109	S
3	*106-021	3	Business Office Fundamentals		SU
3	*106-028	3	Office Technologies Essentials		SU
3	801-196	3	Oral/Interpersonal Communication		SU
4	*106-019	1	Admin. Services Internship I	Prereq: Instructor Consent; 106-137; Coreq: 106-024; 804-135; 801-136	F
4	*106-024	3	Professionalism in Business		F
4	*106-025	3	Spreadsheets for Business	Prereq: 106-137	F

**Minimum Program Total Credits Required: 32**

Students interested in continuing into the 10-106-6 Administrative Professional program can earn their associate degree by completing an additional 28 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### Office Assistant (31-106-1)

*Office Assistant* prepares individuals to fulfill the role of an office generalist. Participants will develop skills in keyboarding, filing, business mathematics, records control, and customer service. Office Assistant graduates will develop the computer skills necessary to succeed in the office environment. Participants will be given the opportunity to visit and observe area office assistants in action.

### Program Learning Outcomes

Graduates will be able to:

1. Perform accurate workplace communications.
2. Use technology skills for business tasks.
3. Perform routine office procedures.
4. Demonstrate professionalism and effective workplace relationships.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### Graduation Requirements

1. Minimum 32 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum grade of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).

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**Ophthalmic Medical Assistant (31-516-4)**  
**Shared Program with LTC**  
 Technical Diploma  
**Effective 2024/2025**

**Ophthalmic Medical Assistant (31-516-4)**

*This is a shared program with Lakeshore Technical College (LTC).*

The Ophthalmic Medical Assistant program prepares students for employment in ophthalmic and optometric practices and in retail optical settings. Students apply technical skills to perform pre-screening and specialty testing, assist with dispensing glasses and contact lenses, and perform office management duties including maintaining patient information and billing and insurance processes.

**Program Requirements**

Consult the LTC website for program and admission requirements at <https://gotoltc.edu/academics/programs-of-study/ophthalmic-assistant-program/index.html>.

**Graduation Requirements**

Consult the LTC website for graduation requirements at <https://gotoltc.edu/index.html>.

**Program Learning Outcomes**

Graduates will be able to:

1. Apply technical skills to perform eye care prescreening and specialty testing procedures on patients accurately and efficiently.
2. Apply technical skills to educate and assist patients with glasses and/or contact lenses to meet their eye health and visual needs.
3. Perform business office procedures such as maintaining appointment schedules, maintaining patient records, processing insurance reimbursement, and billing patients.
4. Demonstrate professional ethics, honesty, and respect when dealing with doctors, patients, and co-workers.
5. Communicate clearly and professionally in both written and oral formats.

**Gateway Admission Requirements**

1. To indicate your intent to complete this program, please submit the free program application with Gateway Technical College.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading placement assessments.
3. This program has a required admission petition to begin coursework at LTC. See [gtc.edu/petitioning](https://gtc.edu/petitioning) for additional information regarding eligibility and selection.
4. LTC has additional admission requirements for their portion of this program. Please consult with LTC for details.

**Gateway Course Requirements**

Students choosing to start the Ophthalmic Medical Assistant program at Gateway are able to complete up to 10 credits toward the degree at LTC. All courses will satisfy program requirements in the Ophthalmic Medical Assistant program under the shared agreement as long as minimum requirements have been met. Consult the LTC website for requirements at <https://gotoltc.edu/academics/programs-of-study/ophthalmic-assistant-program/index.html>.

Term	Course Number	Course Title	Cr.	Requisites
1	501-101	Medical Terminology <sup>2</sup>	3 cr.	(Prereq: 838-105)
2	509-302	Human Body Health and Disease	3 cr.	Prereq: Program Adm.; Coreq: 501-101
3	509-308	Pharm. For Allied Health	2 cr.	Prereq: Program Adm.; 509-302
4	509-309	Medical Law, Ethics, & Professionalism	2 cr.	Prereq: Program Adm. Coreq: 801-136 OR 801-301

**Notes**

1. Students will be admitted to the program and receive financial aid through LTC. To apply, visit <https://gotoltc.edu/how-to-apply/index.html>.
2. Students completing the shared program will receive their degree from LTC.
3. Students must complete a Release of Information Form to allow Gateway Technical College to share academic and student record information with Lakeshore Technical College.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Practical Nursing (31-543-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**R-D = Racine/days, E-D = Elkhorn/days S=Spring, SU=Summer, F=Fall**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	R-D	E-D
1	890-155	1	Gateway to Success (G2S)		F/S/SU	SU
1	801-136	3	English Composition <sup>2,7</sup>	Prereq: 831-103 OR 851-757	F/S/SU	SU
1	*806-177	4	General Anatomy and Physiology <sup>2,5,7</sup>		F/S/SU	SU
1	809-188	3	Psychology, Developmental <sup>2,7</sup>	Prereq: 838-105 OR 851-757	F/S/SU	SU
2	*543-301	2	Nursing Fundamentals <sup>1,5</sup>	Prereq: Program Admission; Advisor Consent; 806-177 Coreq: 801-136	F/S/SU	F
2	*543-302	3	Nursing Skills <sup>1,5,7</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S/SU	F
2	*543-303	2	Nursing Pharmacology <sup>1,5,7</sup>	Prereq: Program Admission; Advisor Consent; 806-177	F/S/SU	F
2	*543-304	2	Nsg: Intro Clinical Practice <sup>1,5,7</sup>	Prereq: Program Admission; Advisor Consent; 806-177 Coreq: 543-301; 543-302; 543-303	F/S/SU	F
3	*543-305	3	Nursing Health Alterations	Prereq: Department consent; 543-301; 543-302; 543-303; 543-304; 801-136	F/S/SU	S
3	*543-306	3	Nursing Health Promotion	Prereq: Department consent; 543-301; 302; 303; 543-304; 809-188; 801-136	F/S/SU	S
3	*543-307	2	Nsg: Clin Care Across Lifespan	Prereq: Department consent; 543-301; 302; 543-303; 543-304; Coreq: 543-306	F/S/SU	S
3	*543-308	2	Nsg: Intro Clinical Care Mgt	Prereq: Department consent; 543-301; 302; 543-303; 543-304; Coreq: 543-305	F/S/SU	S

**Minimum Program Total Credits Required: 30**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Practical Nursing (31-543-1)

The Practical Nurse (PN) program prepares graduates to provide basic hands-on nursing care needed by patients in variety of health care settings. LPN's assist with data collection, develop and revise nursing care plans, reinforce teaching provided by RN's or other appropriate health care personnel, and participate as a member of the health care team in meeting basic client needs.

This is an excellent career for people who enjoy working with people and caring for individuals with physical or emotional concerns. Students must be willing to learn, have effective communication and interpersonal skills, and have an interest in health care as a career.

### Program Learning Outcomes

Graduates will be able to:

1. Integrate Practical Nursing identity reflecting integrity, responsibility, and nursing.
2. Communicate basic information using multiple sources in nursing practice.
3. Utilize theoretical knowledge to participate in decision making
4. Apply the nursing process to basic client care across diverse populations.
5. Function as a healthcare team member to provide safe and effective care.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Admission Requirements

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.
5. Students must view the Practical Nursing Information video online and submit the corresponding electronic form verifying their understanding of the information presented.

### Graduation Requirements

1. Minimum of 30 credits with a cumulative GPA of 2.0 or above.
2. \*Minimum of 2.0 ("C") or above for those major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.
4. Gateway credits may transfer to colleges and universities offering adv. nurse ed. programs.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### Notes

1. Students are selected based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information. Students must meet current petition requirements at the time they are eligible to enroll in 543 courses.
2. Satisfactory college placement results through multiple measures (or placement scores) or successful remediation is required prior to enrollment. See an advisor for details.
3. A liability insurance fee per semester is required.
4. A physical examination and immunization are required prior to admission to the first clinical course. Clinical sites may require proof of health insurance.
5. Beginning in January 2015, students must receive a ("B-") or better in 806-177 General Anatomy & Physiology before they can enroll in this course.
6. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and /or Drug Testing.
7. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
8. The core 543 nursing courses require students to have a laptop computer available for use in the classroom. The computer must meet minimum MS Windows laptop specifications - see your advisor for details.
9. Students must have completed 543-300 or equivalent of certified nursing assistant course prior to admission into program.
10. The core 543 nursing courses can also be modified to take two courses per semester over a period of four semesters. This modified option will impact your ability to utilize financial aid. Please contact a student finance specialist in Student Services for more information.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



**Full-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Refrigeration, Air Conditioning & Heating Service Technician (31-401-1)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**K-D = Kenosha/days, E-D = Elkhorn/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-D	E-D
1	890-155	1	Gateway to Success (G2S)		F	S
1	*601-110	3	Air Condition Fundamentals	Coreq: 601-116	F	S
1	*601-116	3	Mechanical Fundamentals		F	S
1	*601-304	3	HVAC Electricity/Electronics		F	S
1	*804-370	2	Mathematics I/Applied	Prereq: 854-760	F	S
2	801-301	1	Writing Principles	Prereq: 851-760 OR 851-756	S	SU
2	*601-121	3	Heating Systems	Prereq: 601-110	S	SU
2	*601-128	3	Electrical Controls & Systems	Prereq: 601-304; Coreq: 804-370	S	SU
2	*601-129	3	HVAC Systems	Prereq: 601-110; 601-116	S	SU
2	801-302	1	Speaking Principles		S	SU
2	*601-133	3	Refrigeration Fundamentals	Prereq: 601-110; 601-116	S	SU
3	*601-131	3	Heating Systems Applications <sup>4</sup>	Prereq: 601-121	SU	F
3	*601-147	3	Control Circuit Applications	Prereq: 601-128; 804-370	SU	F
3	*601-145	3	Electronic Energy Management	Coreq: 601-147	SU	F
3	*601-143	3	Refrigeration Applications <sup>4</sup>	Prereq: 601-110; 601-116; 601-133	SU	F

**Minimum Program Total Credits Required: 38**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Refrigeration, Air Conditioning and Heating Service Technician (31-401-1)**

*Refrigeration, Air Conditioning and Heating Technician* develops the skills and knowledge necessary for state and federal certification. Theory and practical hands-on experience in the troubleshooting, repair, and installation of residential and commercial HVAC/R systems are emphasized. Students will practice on modern and advanced equipment, incorporating microprocessor controls, and building automation technology. Topics covered during lecture and lab hours include complete heating, air conditioning and refrigeration systems, how components interact, and total system performance. Refrigerant handling certification is encouraged and is dependent upon successful completion by the individual student.

### **Program Learning Outcomes**

Graduates will be able to:

1. Install HVAC/R components
2. Service HVAC/R systems
3. Troubleshoot HVAC/R systems

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 38 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students who take 601-113 (Facility Operating Engineer LP) and 601-117 (Facility Operating Engineer HP) may omit these courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Refrigeration, Air Conditioning & Heating Service Technician (31-401-1)**

Technical Diploma

**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**K-E = Kenosha/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	K-E
1	890-155	1	Gateway to Success (G2S)		S
1	*601-110	3	Air Condition Fundamentals	Coreq: 601-116	S
1	*601-116	3	Mechanical Fundamentals		S
1	*804-370	2	Mathematics I/Applied	Prereq: 854-760	S
2	601-304	3	HVAC Electricity/Electronics		SU
2	*601-133	3	Refrigeration Fundamentals	Prereq: 601-110; 601-116	SU
2	*601-121	3	Heating Systems	Prereq: 601-110	SU
3	801-301	1	Writing Principles	Prereq: 851-760 OR 851-756	F
3	*601-128	3	Electrical Controls & Systems	Prereq: 601-304; Coreq: 804-370	F
3	*601-129	3	HVAC Systems	Prereq: 601-110; 601-116	F
4	801-302	1	Speaking Principles		S
4	*601-131	3	Heating Systems Applications <sup>4</sup>	Prereq: 601-121	S
4	*601-147	3	Control Circuit Applications	Prereq: 601-128; 804-370	S
5	*601-145	3	Electronic Energy Management	Coreq: 601-147	SU
5	*601-143	3	Refrigeration Applications <sup>4</sup>	Prereq: 601-110; 601-116; 601-133	SU

**Minimum Program Total Credits Required: 38**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Refrigeration, Air Conditioning and Heating Service Technician (31-401-1)**

*Refrigeration, Air Conditioning and Heating Technician* develops the skills and knowledge necessary for state and federal certification. Theory and practical hands-on experience in the troubleshooting, repair, and installation of residential and commercial HVAC/R systems are emphasized. Students will practice on modern and advanced equipment, incorporating microprocessor controls, and building automation technology. Topics covered during lecture and lab hours include complete heating, air conditioning and refrigeration systems, how components interact, and total system performance. Refrigerant handling certification is encouraged and is dependent upon successful completion by the individual student.

### **Program Learning Outcomes**

Graduates will be able to:

1. Install HVAC/R components
2. Service HVAC/R systems
3. Troubleshoot HVAC/R systems

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.

### **Graduation Requirements**

1. Minimum 38 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription safety glasses are required, allow a minimum of 90 days.
3. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
4. Students who take 601-113 (Facility Operating Engineer LP) and 601-117 (Facility Operating Engineer HP) may omit these courses.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Veterinary Assistant (31-091-3)**  
Technical Diploma  
**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D
1	890-155	1	Gateway to Success (G2S)		S/SU
1	806-105	4	Principles of Animal Biology <sup>13</sup>		S/SU
1	809-198	3	Psychology, Introduction to <sup>1,13</sup>	Prereq: 838-105 OR 851-757	S/SU
2	*091-120	1	Animal Behavior	Prereq: Program Admission	SU/F
2	091-123	2	Veterinary Medical Terminology	Prereq: Program Admission	SU/F
2	801-196	3	Oral/Interpersonal Communication		SU/F
	<b>OR</b> 801-198		<b>OR</b> Speech		
3	*091-101	3	Animal Care and Management	Prereq: Instructor Consent Coreq: 806-105; 091-120	F/S
3	*091-102	3	Veterinary Business Practices	Coreq: 091-101	F/S
4	*091-103	4	Clinical Pathology I for Vet Sciences <sup>11</sup>	Prereq: 091-101; 091-102; 806-105	S/SU
4	*091-105	3	Surgical Procedures I for Vet Sciences	Coreq: 091-103	S/SU
4	*091-107	3	Imaging for Veterinary Sciences	Coreq: 091-103	S/SU
5	*091-108	3	Veterinary Pharmacology <sup>1</sup>	Prereq: 834-109; Coreq: 091-110	SU/F
5	*091-110	2	Clinical Skills I for Vet Sciences	Prereq: Instructor Consent	SU/F

**Minimum Program Total Credits Required: 35**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Veterinary Assistant (31-091-3)**

In this program, students learn basic veterinary assistant skills including how to care for and handle animals, provide medical and surgical nursing, and perform radiography and clinical laboratory procedures. Applicable federal, state, and local law and ethical guidelines are presented to students throughout the program. Students complete clinical work under the direction of certified veterinary technicians and veterinarians. Upon completion of the program, graduates can provide professional support to veterinarians and veterinary technicians in veterinary clinics.

### **Program Learning Outcomes**

Graduates will be able to:

1. Manage daily veterinary business functions.
2. Develop basic animal handling skills and husbandry needs.
3. Explore the concepts of surgical room and pre-surgical patient preparation.
4. Examine legal issues and pharmacy skills for a Veterinary Assistant.
5. Investigate basic diagnostic laboratory and radiology skills.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid reading, writing, and math placement assessments.
3. Students must complete a Background Disclosure form and must request and pay for a background check. Applicants for all health science programs are subject to a review of their criminal backgrounds. Positive background checks may negatively impact your ability to pursue a health career at Gateway Technical College. Each case will be individually evaluated based on all available evidence provided to the college.
4. Students must submit official high school, GED, or HSED transcript including a graduation or passing date.

### **Graduation Requirements**

- Minimum 35 credits with a cumulative GPA of 2.0 or above.
- \*Minimum grade of 2.0 ("C") or above for these major courses.
- Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. It is preferred that students in this program complete 806-105 as the prereq for this course.
3. Students must maintain minimum course grades of "C" or better for all courses marked with an (\*) to remain in the program.
4. A laptop computer, stethoscope, uniform, and other supplies will be needed.
5. Nearly daily exposure to latex and/or animal fur and dander will occur in this program. Those with sensitivities may find exposure impossible to avoid.
6. Immunocompromised individuals should consult their physician before enrollment.
7. Clinical sites are located throughout and potentially outside the district. Students are responsible for their own transportation.
8. Some clinical sites require TB testing and immunizations against tetanus and hepatitis B. Rabies immunization is required.
9. This program is full-time. Students should expect to be in class Monday-Friday 8 am-5 pm.
10. Please note that your program may require additional fee(s) for: Criminal Background Check, Medical Document Manager, and/or Drug Testing.
11. Students must receive a "B" or better in 806-105 before they can enroll in this course.
12. A credit for prior learning assessment is available for this course. For more information, please contact [cfpl@gtc.edu](mailto:cfpl@gtc.edu).
13. Students are selected for core courses based on completion of academic eligibility requirements and district residency. See [gtc.edu/petitioning](http://gtc.edu/petitioning) for additional information.
14. Students admitted to the program must complete a volunteer shadowing experience in an approved clinical setting prior to registering for a Veterinary Technician course. Documentation requirements will be included in the program admission packet. This is a high demand program with petitioning required. See the program adviser for details.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

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**Truck Driving (30-458-1)**  
Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**HZ-D = Horizon Center/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	HZ-D
1	*458-301	3	CDL & Inspection Law and Logistics	Prereq: Program Admission	F/S/SU
1	*458-302	4	CDL License, Driving Skills, Safety	Prereq: 458-301	F/S/SU
1	*458-303	3	Continuous Improvement & Hazard Safety	Prereq: 458-302	F/S/SU

**Minimum Program Total Credits Required: 10**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.67 ("B-") or above for these major courses to meet graduation requirements.



### **Truck Driving (30-458-1)**

Professional truck drivers for local, regional, and over the road jobs are in high demand. Become part of this exciting industry. This 360-hour course covers all aspects from obtaining your Commercial Learner's Permit (CLP) to the opportunity to obtain your Commercial Driver's License (CDL). You will learn how to safely operate a tractor trailer, laws and regulations, maintenance, vehicle systems and safety.

#### **Program Learning Outcomes**

Graduates will be able to:

1. Perform commercial vehicle inspections
2. Communicate with industry and regulatory personnel
3. Complete legal and industry related documentation
4. Plan trips
5. Perform safe operation of a commercial vehicle
6. Obtain a CDL (Commercial Driver's License)

#### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

#### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Participants must have a valid Wisconsin Driver's License.
3. Participants must pass a Department of Transportation (DOT) physical.

#### **Graduation Requirements**

1. Minimum 10 credits with a cumulative GPA of 2.0 or above.
  2. \*Average of 2.67 ("B-") or above for these major courses.
- For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

#### **Notes**

1. Participants must be 18 years of age or older.
2. Participants must be able to speak and read English.
3. Please note that your program may require additional fee(s) for; a Physical Examination, Drug Testing, and/or Class A Commercial Learner's Permit.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

**EQUAL OPPORTUNITY EMPLOYER AND EDUCATOR/EMPLEADOR Y EDUCADOR QUE OFRECE IGUALDAD DE OPORTUNIDADES**



## Full-Time Pathway to Success

School of Manufacturing, Engineering, and Information Technology

# Welding (31-442-1)

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, R-D = Racine/days, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D
1	890-155	1	📍 Gateway to Success (G2S)		F/S/SU	F/S/SU
1	*442-321	3	Welding / Gas Metal Arc Welding		F/S/SU	F/S/SU
1	*442-322	3	Welding / Shielded Metal Arc Welding		F/S/SU	F/S/SU
1	*442-323	3	Welding / Gas Tungsten Arc Welding		F/S/SU	F/S/SU
1	*442-334	3	Welding/Thermal Cutting		F/S/SU	F/S/SU
1	804-370	2	Mathematics I / Applied <sup>1</sup>	Prereq: 854-760	F/S/SU	F/S/SU
2	*442-324	2	Weld Printreading & Fab. Procedures		F/S/SU	F/S/SU
2	*457-309	2	🎓 Metal Fabrication I		F/S/SU	F/S/SU
2	*442-330	3	Welding / Adv. Shielded Metal Arc Welding	Prereq: 442-322	F/S/SU	F/S/SU
2	*442-332	3	Welding / Adv. Gas Metal Arc Welding	Prereq: 442-321	F/S/SU	F/S/SU
2	*442-333	3	Welding / Adv. Gas Tungsten Arc Welding	Prereq: 442-323	F/S/SU	F/S/SU
3	*457-336	3	Metal Fabrication II	Prereq: 457-309; 442-324; 442-321; 442-322 or 442-323	F/S/SU	F/S/SU
3	*457-337	3	Metal Fabrication III	Prereq: 804-370; Coreq: 457-336	F/S/SU	F/S/SU
3	*442-308	3	Welding / Pipe Shield Metal Arc Welding	Prereq: 442-322	F/S/SU	F/S/SU
3	*442-307	3	Welding / Pipe Gas Tungsten Arc Welding	Prereq: 442-322; 442-323	F/S/SU	F/S/SU
3	*442-306	3	Welding / Pipe Gas Metal Arc Welding	Prereq: 442-321	F/S/SU	F/S/SU

**Minimum Program Total Credits Required: 43**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Welding (31-442-1)**

*Welding* provides concentrated instruction, primarily through practical experience, on various welding techniques. The following processes are covered Welding/Thermal Cutting, brazing, and cutting; GMAW-gas metal arc welding (wire, MIG, short circuit); GTAW-gas tungsten arc welding (TIG, heliarc); and SMAW-shielded metal arc welding (stick, arc), including robotic welding, pipe welding and cutting.

### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate Industry recognized safety practices.
2. Interpret molding drawings.
3. Produce shielded metal arc welds (SMAW).
4. Produce gas metal arc welds (GMAW).
5. Produce flux cored welds (FCAW).
6. Produce gas tungsten arc welds (GTAW).
7. Perform cutting operations.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid math placement assessment.

### **Graduation Requirements**

1. Minimum 43 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. Students are required to have an arc welding helmet, oxy-acet goggles, welding gloves (leather), pliers, and tape measure. Students must be prepared to bring their own equipment.
4. Welding PPE kits are available at the campus bookstore.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Welding (31-442-1)**

Technical Diploma

**Effective 2024/2025**

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.

All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.

Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

**E-D = Elkhorn/days, E-E = Elkhorn/evenings, R-D = Racine/days, R-E = Racine/evenings, F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	E-E	R-D	R-E
1	890-155	1	📍 Gateway to Success (G2S)		F/S/SU	F/S/SU	F/S/SU	F/S/SU
1	*442-334	3	Welding/Thermal Cutting		F/S/SU	F/S/SU	F/S/SU	F/S/SU
1	*442-322	3	Welding / Shielded Metal Arc Welding		F/S/SU	F/S/SU	F/S/SU	F/S/SU
1	804-370	2	Mathematics I / Applied <sup>1</sup>	Prereq: 854-760	F/S/SU	F/S/SU	F/S/SU	F/S/SU
2	*442-323	3	Welding / Gas Tungsten Arc Welding		F/S/SU	F/S/SU	F/S/SU	F/S/SU
2	*442-324	2	Weld Printreading & Fab. Procedures		F/S/SU	F/S/SU	F/S/SU	F/S/SU
2	*442-321	3	Welding / Gas Metal Arc Welding		F/S/SU	F/S/SU	F/S/SU	F/S/SU
2	*457-309	2	🎓 Metal Fabrication I		F/S/SU	F/S/SU	F/S/SU	F/S/SU
3	*442-330	3	Welding / Adv. Shielded Metal Arc Welding	Prereq: 442-322	F/S/SU	F/S/SU	F/S/SU	F/S/SU
3	*442-332	3	Welding / Adv. Gas Metal Arc Welding	Prereq: 442-321	F/S/SU	F/S/SU	F/S/SU	F/S/SU
3	*442-333	3	Welding / Adv. Gas Tungsten Arc Welding	Prereq: 442-323	F/S/SU	F/S/SU	F/S/SU	F/S/SU
4	*457-336	3	Metal Fabrication II	Prereq: 457-309; 442-324; 442-321; 442-322 or 442-323	F/S/SU	F/S/SU	F/S/SU	F/S/SU
4	*457-337	3	Metal Fabrication III	Prereq: 804-370; Coreq: 457-336	F/S/SU	F/S/SU	F/S/SU	F/S/SU
4	*442-308	3	Welding / Pipe Shield Metal Arc Welding	Prereq: 442-322	F/S/SU	F/S/SU	F/S/SU	F/S/SU
5	*442-307	3	Welding / Pipe Gas Tungsten Arc Welding	Prereq: 442-322; 442-323	F/S/SU	F/S/SU	F/S/SU	F/S/SU
5	*442-306	3	Welding / Pipe Gas Metal Arc Welding	Prereq: 442-321	F/S/SU	F/S/SU	F/S/SU	F/S/SU

**Minimum Program Total Credits Required: 43**

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

📍 Mastery of this course will put students on a path to achieve successful degree completion, on-time graduation, and enrich the college experience. Students are required to take this course in their first semester of enrollment. Please see an advisor for details.

🎓 = Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

## **Welding (31-442-1)**

*Welding* provides concentrated instruction, primarily through practical experience, on various welding techniques. The following processes are covered: Welding/Thermal Cutting, brazing, and cutting; GMAW-gas metal arc welding (wire, MIG, short circuit); GTAW-gas tungsten arc welding (TIG, heliarc); and SMAW-shielded metal arc welding (stick, arc), including robotic welding, pipe welding and cutting.

### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate Industry recognized safety practices.
2. Interpret molding drawings.
3. Produce shielded metal arc welds (SMAW).
4. Produce gas metal arc welds (GMAW).
5. Produce flux cored welds (FCAW).
6. Produce gas tungsten arc welds (GTAW).
7. Perform cutting operations.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.
2. Students must meet one of the following: minimum cumulative high school GPA of 2.6 (unweighted); earned at least 12 college credits with a minimum GPA of 2.0; or complete valid math placement assessment.

### **Graduation Requirements**

1. Minimum 43 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.
3. Complete 890-155 Gateway to Success (G2S) in the first semester.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Satisfactory college placement results (through multiple measures or placement test scores) or successful remediation is required prior to enrollment. See an advisor for details.
2. Safety glasses are required in labs. If prescription glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
3. Students are required to have an arc welding helmet, oxy-acet goggles, welding gloves (leather), pliers, and tape measure. Students must be prepared to bring their own equipment.
4. Welding PPE kits are available at the campus bookstore.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



**Part-Time Pathway to Success**

School of Manufacturing, Engineering, and Information Technology

**Welding/Maintenance & Fabrication (30-442-2)**

Technical Diploma  
**Effective 2024/2025**

*The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.*

*All courses should be taken in the order shown to help you stay on track and graduate according to your academic plan.*

*Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).*

**E-D = Elkhorn/days, R-D = Racine/days F=Fall, S=Spring, SU=Summer**

Term	Course #	Cr.	Course Title	Requisites (prereq- before/ coreq-with)	E-D	R-D
1	*442-321	3	Welding / Gas Metal Arc Welding		F/S/SU	F/S/SU
1	*442-322	3	Welding / Shielded Metal Arc Welding		F/S/SU	F/S/SU
1	*442-323	3	Welding / Gas Tungsten Arc Welding		F/S/SU	F/S/SU
2	*442-324	2	Weld Printreading & Fab. Procedures		F/S/SU	F/S/SU
2	*442-334	3	Welding/Thermal Cutting		F/S/SU	F/S/SU
2	*457-309	2	Metal Fabrication I		F/S/SU	F/S/SU

**Minimum Program Total Credits Required: 16**

Students interested in continuing into the 31-442-1 Welding program can earn their technical diploma by completing an additional 27 credits. Please see your academic advisor for details.

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the back of the sheet.

= Milestone Course. Faculty have identified this course as providing a strong foundation for success throughout the program.

(\*) indicates students must achieve a combined average of 2.0 ("C") or above for these major courses to meet graduation requirements.

### **Welding/Maintenance & Fabrication (30-442-2)**

*Welding/Maintenance & Fabrication* provides concentrated instruction, primarily through practical experience, on various welding techniques. The following processes are covered: Welding/Thermal Cutting; GMAW-gas metal arc welding (wire, MIG, short circuit); GTAW-gas tungsten arc welding (TIG, heliarc); and SMAW-shielded metal arc welding (stick, arc).

### **Program Learning Outcomes**

Graduates will be able to:

1. Demonstrate industry-recognized safety practices.
2. Interpret welding drawings.
3. Produce shielded metal arc welds (SMAW).
4. Produce gas metal arc welds (GMAW).
5. Perform cutting operations.

### **Essential Career Competencies**

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### **Admission Requirements**

1. Students must submit an application and pay \$30 fee.

### **Graduation Requirements**

1. Minimum 16 credits with a cumulative GPA of 2.0 or above.
2. \*Average of 2.0 ("C") or above for these major courses.

For a complete list of Graduation Requirements, check the Student Handbook or [Graduation Requirements](#).

### **Notes**

1. Safety glasses are required in labs. If prescription glasses are required, allow a minimum of 90 days before the program start to obtain prescription and glasses.
2. Students are required to have an arc welding helmet, oxy-acet goggles, welding gloves (leather), pliers, and tape measure. Students must be prepared to bring their own equipment.
3. Welding PPE kits are available at the campus bookstore.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



# Arborist Apprentice (50-001-1) Effective 2024/2025

### Program Description

Urban forestry combines the science of arboriculture with urban tree management strategies, emphasizing the practical disciplines related to tree planting; tree care and protection, and the retention of a healthy urban tree population for the benefits the trees provide to the community. The urban environment can present many arboricultural challenges such as limited root and canopy space, poor soil quality, deficiency or excess of water and light, heat, pollution, mechanical and chemical damage to trees, and mitigation of tree-related hazards. In this occupation and trade, arborists utilize the science of Arboriculture to manage trees planted in and around human occupied areas. Arborists are individuals trained in the art and science of planting, pruning, and the overall caring for, and maintenance of individual trees. They perform the related job duties and tasks associated with maintaining a viable and safe urban tree population managed by private homeowners and their trees, and urban foresters who manage city tree populations.

### Program Learning Outcomes

Graduates will be able to:

1. Adhere to safe work practices.
2. Operate equipment.
3. Maintain equipment.
4. Prune trees and shrubs.
5. Remove trees and shrubs.
6. Establish trees and shrubs.
7. Assess trees to mitigate risks.
8. Apply plant healthcare treatments.
9. Demonstrate core ability skills required for the trade.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. You should apply directly to employers, and entry requirements vary by employer.
2. If you need assistance finding an employer who will take you on as an apprentice, don't hesitate to get in touch with the local Apprenticeship Training Representative at 262-564-3210 to find an employer who has been approved to train apprentices.
3. Once your contract is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Students must have a valid driver's license and pass an aptitude test.
5. Arborists work outdoors in all kinds of weather for extended periods of time. The work is physically demanding and requires dangerous equipment such as chainsaws. Moreover, the work is often performed at heights, so arborists use fall-protection gear in addition to personal protective equipment.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Arborist Apprentice (50-001-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*001-124	Fundamentals of Aerial Tree Work	2.0	54
1	*001-173	Urban Tree Maintenance	2.0	54
1	*001-133	Chainsaw Safety and Operation	2.0	54
1	*001-118	Landscape Plant Identification	2.0	54
1	*001-189	Plant Health Care & Treatments	2.0	54
2	*001-110	Tree Growth & Development	2.0	54
2	*001-156	Tree Care Practicum 1	2.0	72
2	*001-191	Leadership & Teamwork in Tree Care	1.0	36
2	*455-455	Transition to Trainer	.20	8

### Training at a Glance

- Time to complete – Approximately 3 years
- On the job time – 5400 Hours
- Related Instruction Time – 440 Hours
- Additional training – First Aid & CPR Certifications; State of WI Pesticide Applicator; ISA Certified Arborist Credential
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

### Bookstore Information

Follett Bookstores are located on the Elkhorn, Kenosha and Racine campuses year-round. Students can rent and purchase new, used and digital textbooks as well as purchase their required course supplies at these locations.

Students may also purchase course materials online at eFollett (link is external) and have their items shipped to their home or campus store locations, as well as review their class schedule in My Gateway, which will link directly to needed course materials in eFollett.

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Barbering Apprentice (50-502-5) Effective 2024/2025

### Program Description

Barbers focus on providing hair and shaving services to enhance clients' appearance. Those who operate their own barbering establishments may have managerial duties that include: hiring and supervising employees; keeping business records; maintaining licenses, permits and insurance; controlling inventory and ordering supplies, and developing marketing plans. Barbers cut, trim, shampoo, and style hair, mostly for male clients. They also may fit hairpieces and offer facial shaving. In every state, barbers are licensed to color, bleach, and highlight hair and to offer permanent-wave services. Common tools include combs, scissors, razors, and clippers. "Barbering" means, for compensation, arranging, styling, dressing, shampooing, cleansing, curling, dyeing, tinting, coloring, bleaching, waving, cutting, shaving, trimming, relaxing, or performing similar work upon the hair of the head, neck, or face of any person by any means.

### Program Learning Outcomes

Graduates will be able to:

1. Apply safety and infection control procedures.
2. Identify hair and scalp disorders.
3. Perform haircutting services.
4. Demonstrate shaving and other facial hair removal techniques.
5. Perform male facial procedures.
6. Perform texture services.
7. Perform hair color services.
8. Demonstrate hair styling and finishing techniques.
9. Adhere to the current Wisconsin administrative codes and statutes for barbers.
10. Demonstrate interpersonal skills for success.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as a Barber Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. You and your employer will submit the credential notice, the Apprentice Application (Form #1488) and fee (\$10.00) to the Department of Safety and Professional Services, P.O. Box 8935, Madison, WI 53708-8935.
4. The Department of Safety and Professional Services will issue the apprentice permit after the application is approved. You may begin to work after your permit is issued. Your permit will be valid for three (3) years.
5. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. You must be in good physical health and able to stand for long periods of time, possess finger dexterity, a sense of form and artistry and be able to work well with the public.
2. Entry requirements vary by employer. High school diploma or equivalent is recommended.
3. Applicants apply directly to a licensed, full service salon. The salon must be in business for at least one year.
4. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Barbering Apprentices (50-502-5) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. Taking courses in the order shown will help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course #	Course Name	Credits	Hours
*502-580	Trichology for Barbering	.50	18
*502-581	Professional Development for Barbering	.25	9
*502-582	Hair Styling for Barbering	1.00	36
*502-583	Shampoo for Barbering	.50	18
*502-584	Skin Related Disorders for Barbering	.25	9
*502-509	Shaving/Male Facials	.50	18
*502-586	Hair Cutting for Barbering	1.25	45
*502-587	Barbering Codes	.25	9
*502-588	Barbering Laws	.25	9
*502-589	Salon Ecology for Barbering	.50	18
*502-590	Chemical Relaxing for Barbering	.25	9
*502-592	Perming for Barbering	1.00	36
*502-593	Hair Color for Barbering	1.00	36
*502-594	Bleaching for Barbering	.25	9
*502-508	People Skills	.25	9

### Training at a Glance

- Time to complete – Approximately 1 year
- On the job time – 1712 Hours
- Related Instruction Time – 288 Hours
- Additional training – Apprentice permit from the WI Department of Safety and Professional Services, Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information at <https://dwd.wisconsin.gov/apprenticeship/occupations/barber.htm>

### NOTES

- Apprenticeship textbooks are obtained through an offsite vendor.
- Contact Pivot Point International representative, Matt Kyle, at [mkyle@pivot-point.com](mailto:mkyle@pivot-point.com) or call 847-866-0500, Ext. 7372 for more information.
- Black scrubs are required for this apprenticeship program. If you have any questions, please contact the Apprenticeship Department.

If you need assistance getting started  
Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet. (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



# Construction Electrical Apprentice (50-413-2) Effective 2024/2025

### Program Description

This program helps prepare apprentices to become electricians. Related instruction is intended to support on-the-job learning through an employer or trade, and the learning outcomes listed for this program align with identified work processes and external standards. Electricians plan, diagram, install, and repair electrical fixtures, apparatus, and control equipment such as switches, relays, and circuit breaker panels. They measure, cut, bend, thread, assemble, and install electrical conduit (pipe or tubing), and pull wire through conduit. They test continuity of circuits to ensure compatibility and safety of components, using instruments; such as the ohmmeter, megger, and other testing equipment. Electricians assemble, install, and wire electrical systems that operate heating, lighting, power, air conditioning, and refrigeration components; electrical machinery; electronic equipment and controls; and signal and communication systems. For safety, electricians must also become familiar with the National Electrical Code, designed to protect persons and property from hazards arising from the use of electricity.

### Program Learning Outcomes

Graduates will be able to:

1. Apply AC and DC theory.
2. Apply electrical code requirements.
3. Apply operational principles to transformer installations.
4. Examine electric motor theory and applications.
5. Apply electric motor control theory and applications.
6. Analyze variable speed drives.
7. Interpret electrical and equipment drawings.
8. Communicate trade and occupational related information effectively.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. Go to your local Joint Apprenticeship Committee and fill out an application (you do not need to be a resident of the county you apply to).
2. Send your high school transcripts to your local Union Hall. Transcript request forms are available at the Union Hall. A one-year high school algebra equivalent is available, and if coursework is needed, register for Gateway's Algebra/Pre-technical course (854-761).
3. Pass the basic reading, writing and math test required per application. Testing information is available at Union Hall.
4. The Joint Apprenticeship Committee will set up interviews for candidates that have passed the test and have high school transcripts on file. Interviews are scheduled twice a year in Racine and Kenosha.
5. After being interviewed, your name will be ranked with the other eligible candidates. Apprenticeships are offered by the Union in order to the highest-ranked candidates on the list.
6. Once hired by a contractor, Gateway's Apprenticeship Department will be notified that you are an apprentice and will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job in hot or cold weather, differing heights and cramped spaces.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Students must have a valid driver's license.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Construction Electrical Apprentice (50-413-2) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course	Course Name	Credits	Hours
*413-506	Electrical Theory I/Construction	4.00	144
*413-516	Electrical Theory II/Construction	4.00	144
*413-526	Electrical Theory III/Construction	4.00	144
*413-536	Electrical Theory IV/Construction	4.00	144
*413-546	Electrical Theory V/Construction	4.00	144

### Training at a Glance

- Time to complete – Approximately 4 years
- On the job time – 8000 Hours
- Related Instruction Time – 720 Hours
- Additional training – Valid credential issued by WI Dept of Safety and Professional Services; First Aid and CPR certifications; Complete unpaid related instruction; Transition to Trainer; OSHA 30-hr safety certification; pass the State Electrical Journeyworker Exam
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway’s Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 (“C”) or above for these major courses to meet graduation requirements.

## Cosmetology Apprenticeship (50-502-1) Effective 2024/2025

### Program Description

Cosmetology is a vibrant career with many employment and career opportunities. Salons, spas, barber shops, and beauty supply companies need professional stylists. A career in cosmetology combines professional techniques with creativity to provide a challenging career with many rewards. The cosmetology apprenticeship program provides the theory training to allow the student to satisfy the Wisconsin state requirements to become a licensed professional.

### Program Learning Outcomes

Graduates will be able to:

1. Summarize safety and sanitation procedures.
2. Summarize the current Wisconsin administrative codes and statutes for cosmetology.
3. Demonstrate interpersonal skills for success.
4. Compare haircutting services.
5. Compare shampoo services.
6. Compare skin care services.
7. Compare texture services.
8. Compare hair color services.
9. Compare hair styling and finishing techniques.
10. Compare nail services.
11. Develop strategies to market products and services.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as a Barber Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprenticeship application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. You and your employer will submit the credential notice, the Apprentice Application (Form #1488) and fee (\$10.00) to the Department of Safety and Professional Services, P.O. Box 8935, Madison, WI 53708-8935.
4. The Department of Safety and Professional Services will issue the apprentice permit after the application is approved. You may begin to work after your permit is issued. Your permit will be valid for three (3) years.
5. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. You must be in good physical health and able to stand for long periods of time, possess finger dexterity, a sense of form and artistry and be able to work well with the public.
2. Entry requirements vary by employer. High school diploma or equivalent is recommended.
3. Applicants apply directly to a licensed, full service salon. The salon must be in business for at least one year.
4. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Cosmetology Apprentice (50-502-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course #	Course Name	Credits	Hours
*502-518	Haircutting for Cosmetology Apprentice	1.00	36
*502-519	Hairstyling for Cosmetology Apprentice	1.00	36
*502-522	COS Professional Development	.50	12
*502-523	Salon Ecology for Cosmetology App	.50	15
*502-524	Trichology for Cosmetology App	.50	15
*502-525	Shampoo/Haircare for Cosmetology App	.50	12
*502-543	Permanent Waving for Cosmetology App	.75	24
*502-544	Chemical Relaxing for Cosmetology App	.50	12
*502-545	Haircolor/Hair Lightening for Cos App	1.00	36
*502-547	Facial/Makeup/Skin Disorders for Cos	1.00	36
*502-548	Manicure/Pedicure/Artif Nails for Cos	1.00	36
*502-587	Barbering Codes	.25	9
*502-588	Barbering Laws	.25	9

### Training at a Glance

- Time to complete – Approximately 2 years
- On the job time – 3712 Hours
- Related Instruction Time – 288 Hours
- Additional training – Apprentice permit from the WI Department of Safety and Professional Services, Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information at <https://dwd.wisconsin.gov/apprenticeship/occupations/barber.htm>

### NOTES

- Apprenticeship textbooks are obtained through an offsite vendor.
- Contact Pivot Point International representative, Matt Kyle, at [mkyle@pivot-point.com](mailto:mkyle@pivot-point.com) or call 847-866-0500, Ext. 7372 for more information.
- Black scrubs are required for this apprenticeship program. If you have any questions, please contact the Apprenticeship Department.

If you need assistance getting started Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Culinary Apprentices (50-316-3) Effective 2024/2025

### Program Description

The Culinary Apprenticeship program begins with basic theory and techniques of food production and service. Building on these basics, the program then develops advanced culinary techniques as well as skills in menu planning, purchasing, cost control, and food service supervision through a combination of lecture, demonstration, and extensive hands-on experience. Culinary Apprenticeship program are qualified for advanced positions in food preparation and service in both commercial and institutional establishments, including full-service restaurants, hotels, supper and private clubs, colleges, hospitals, and delis.

### Program Learning Outcomes

Graduates will be able to:

1. Apply principles of safety and sanitation in food service operations.
2. Apply principles of nutrition.
3. Demonstrate culinary skills.
4. Manage food service operations.
5. Plan menus.
6. Analyze food service financial information.
7. Relate food service operations to sustainability.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. You should apply directly to employers, and entry requirements vary by employer.
2. If you need assistance finding an employer who will take you on as an apprentice, please contact the local Apprenticeship Training Representative at 262-564-3210 to find an employer who has been approved to train apprentices.
3. Once your contract is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. You must be in good physical health and able to stand for long periods of time, possess finger dexterity, a sense of form and artistry and be able to work well with the public.
2. Entry requirements vary by employer. High school diploma or equivalent is recommended.
3. Students must complete all courses with a grade of "C" or better.
4. A uniform and knife kit is required for this program. Please contact instructor/apprenticeship department for more details.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Culinary Apprentices (50-316-3) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course #	Course Name	Credits	Hours
1	316-170	Sanitation and Hygiene	1.00	18
1	316-150	Culinary Basics 1	4.00	144
2	316-152	Culinary Basics 2	4.00	144
3	316-109	Short Order Deli	3.00	108
4	316-130	Nutrition	2.00	36

### Training at a Glance

- Time to complete – Varies
- On the job time – Varies
- Related Instruction Time – Varies
- Additional training – Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information at <https://dwd.wisconsin.gov/apprenticeship/occupations/cook.htm>

### Required Textbook Information

- Follett Bookstores are located on the Elkhorn, Kenosha and Racine campuses year-round. Students can rent and purchase new, used and digital textbooks as well as purchase their required course supplies at these locations. Students may also purchase course materials online at [eFollett](#) (link is external) and have their items shipped to their home or campus store locations, as well as review their class schedule in [My Gateway](#), which will link directly to needed course materials in eFollett.

If you need assistance getting started Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

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# Facilities Maintenance Technician (50-481-1) Effective 2024/2025

### Program Description

The Facilities Maintenance apprenticeship program will prepare you for a career in the maintenance and repair of residential and light commercial structures. You will get training from highly qualified instructors in: heating, ventilation and air conditioning, electricity, electronic controls and instrumentation, basic plumbing, fundamentals of hydronics, building codes and blueprint reading, electro-mechanical devices and general repair. Along with these skills, you will gain an overview of federal, state and local regulations that impact facility maintenance. You will learn to assess and solve problems quickly in emergency situations based upon an understanding or regulatory guidelines.

### Program Learning Outcomes

Graduates will be able to:

1. Repair/replace basic electrical components.
2. Perform preventative maintenance procedures.
3. Perform basic drywall repairs.
4. Perform basic plumbing repairs.
5. Use portable safety tools.
6. Apply sustainable practices to facility operations.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentice Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Facilities Maintenance Technician (50-481-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*601-110	Air Conditioning Fundamentals	3	90
1	*601-304	HVAC Electricity/Electronics	3	108
2	*601-116	Mechanical Fundamentals	3	90
2	*443-314	Mechanical Systems	2	72
3	*601-121	Heating Systems	3	90
3	*804-370	Mathematics I/Applied	2	72
4	*601-128	Electrical Controls and Systems	3	90
4	*601-305	Facility Operating Engineer LP	3	108
5	*443-315	Industrial Preventative Maintenance	2	72
5	*601-147	Control Circuit Applications	3	90
6	*601-112	Environmental Systems	2	63
6	*601-145	Electronic Energy Management	3	90

### Training at a Glance

- Time to complete – Approximately 2 years
- On the job time – 5200 Hours
- Related Instruction Time – 720 Hours
- Additional training – First Aid and CPR certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started,  
Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## HVAC Apprentice (50-401-9) Effective 2024/2025

### Program Description

HVAC Installation Technicians work with heating, air-conditioning and refrigeration systems that consist of many mechanical, electrical, and electronic components, including motors, compressors, pumps, boilers, fans, ducts, pipes, thermostats and switches. In central heating systems, a furnace or boiler heats air that is distributed throughout the building by a system of metal or fiberglass ducts or piping. Technicians must be able to maintain, diagnose, and correct problems throughout the entire system. They may adjust system controls to recommended settings and test the performance of the entire system using special tools and test equipment. The work involves installing ductwork and installing and wiring environmental control systems and testing and balancing air-handling equipment and hydronic and piping systems. They install, service, and repair heating and air conditioning systems in residences and commercial and industrial establishments. Apprentices will apply trade practices to residential, commercial, industrial and service.

### Program Learning Outcomes

Graduates will be able to:

1. Test pipe or tubing joints and connections for leaks, using pressure gauge or soap-and-water solution.
2. Test electrical circuits and components for continuity, using electrical test equipment.
3. Adjust system controls to settings recommended by the manufacturer to balance the system, using hand tools.
4. Discuss heating-cooling system malfunctions with users to isolate problems or to verify that malfunctions have been corrected.
5. Inspect and test system to verify system compliance with plans and specifications and to detect and locate malfunctions.
6. Repair or replace defective equipment, components, or wiring.
7. Reassemble and test equipment following repairs.
8. Record and report all faults, deficiencies, and other unusual occurrences, as well as the time and materials expended on work orders.
9. Comply with all applicable standards, policies, and procedures, including safety procedures and the maintenance of a clean work area.
10. Obtain and maintain required certifications.
11. Relate learning outcomes to trade practices in residential, commercial, industrial, and service.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. Go to the ABC of WI Apprenticeship Office to pick up an application or fill out an application request online.
2. Achieve a passing score on algebra, arithmetic and reading portions of the Accuplacer test. The Accuplacer test is available at Gateway's Kenosha and Racine campuses and the cost is \$15. Contact the Testing Center to schedule an appointment at 262-564-2542.
3. You will receive a letter of introduction and a list of ABC of WI approved apprenticeship trainers for HVAC. Your letter of introduction should be presented to local ABC of WI approved apprenticeship trainers when applying for apprenticeship jobs.
4. You must find an ABC of WI-approved trainer to hire you before you can become an apprentice. Once hired, you will be invited to meet with the Apprenticeship Committee for final approval and to sign your contract.
5. Once your contract is in place Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job in hot or cold weather, differing heights and cramped spaces.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Students must have a valid driver's license.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## HVAC Apprentice (50-401-9) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course	Course Name	Credits	Hours
*401-501	Introduction to HVAC	1.1	40
*401-502	Tube and Piping Skills	1.1	40
*401-506	Forced Air Heating Intro to	1.1	40
*401-508	Cooling Fundamentals	1.1	40
*401-571	Mechanical Refrigeration Circuit	1.1	40
*401-570	Ductwork Construction & Airside Basics	1.1	40
*401-569	Alternating Current and PM Basics	1.1	40
*401-568	Venting & Introduction to Hydronics	1.1	40
*401-566	Troubleshooting HVAC Systems	1.1	40
*401-567	Hydronics & Steam Systems	1.1	40
*401-565	Refrigerant; Advanced Topics	1.1	40
*401-564	Heat Pumps	1.1	40
*401-563	IAQ/DDC Controls & Air Balancing	1.1	40
*401-562	Commercial Concepts, Advanced	1.1	40
*401-560	Comm/Ind Refrigeration & Alt. Systems	1.1	40
*401-561	Heating & Cooling Design	1.1	40

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 8440 Hours
- Related Instruction Time – 640 Hours
- Additional training – Valid credential issued by WI Dept of Safety and Professional Services; First Aid and CPR certifications; Complete unpaid related instruction; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



# Industrial Manufacturing Technician Apprentice (50-420-9) Effective 2024/2025

## Program Description

Entry level industrial manufacturing technicians operate industrial production related equipment, work with manufacturing related tools, and perform work processes related to a wide variety of manufacturing settings. Industrial manufacturing technician apprentices will learn to set up, operate, monitor, and control production equipment. They will also help improve manufacturing processes and schedules to meet customer requirements.

## Program Learning Outcomes

Graduates will be able to:

1. Protect self and other workers from accidents and injuries.
2. Interpret technical information.
3. Measure work.
4. Inspect work.
5. Use mechanical tools and testing equipment.
6. Set-up production equipment.
7. Operate production equipment.
8. Produce quality product.
9. Be aware of inventory and material processes.
10. Be aware of routine equipment maintenance.
11. Be aware of trends and the current state of the business.
12. Apply soft skills to production and manufacturing work processes.
13. Demonstrate continuous improvement.

## Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

## Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

## Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Industrial Manufacturing Technician Apprentice (50-420-9) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
 Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
 Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course	Course Name	Credits	Hours
*420-510	Industrial Manufacturing Tech. Appr. 1	2.75	96
*420-582	Mathematics for the Machine Trades	1.00	32
*420-512	Industrial Manufacturing Tech. Appr. 2	2.75	96
*420-581	Communications	1.00	32
*455-455	Transition to Trainer	.20	8

### Training at a Glance

- Time to complete – Approximately 1.5 years
- On the job time – 2736 Hours
- Related Instruction Time – 264 Hours
- Additional training – Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started,  
 Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

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Gateway Technical College  
 Apprenticeship Department  
 262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
 (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Machine Repair Apprenticeship (50-420-6) Effective 2024/2025

### Program Description

Machine repairers keep machines, mechanical equipment, or the structure of an establishment in repair. They carefully observe and inspect machinery to detect problems, use computerized diagnostic systems and vibration analysis to determine the cause, repair or replace broken or malfunctioning components, then test and adjust machinery to ensure it operates properly. Perform routine maintenance, such as inspecting drives, motors, or belts, checking fluid levels, replacing filters, or doing other preventive maintenance actions.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate proper rigging techniques.
2. Select an appropriate power transmission system for a given application.
3. Identify suitable pumps for given applications.
4. Recommend bearings for given applications.
5. Plan for fabricating parts and assemblies according to specifications.
6. Apply operational and troubleshooting principles to fluid power systems.
7. Layout an equipment installation plan.
8. Plan maintenance schedules for a given system.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprenticeship application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Machine Repair Apprentice (50-420-6) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*804-502	Math 1 for Apprentice	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*462-503	Industrial Mechanic Fundamentals I	1.00	36
1	*462-504	Industrial Mechanic Fundamentals II	1.00	36
2	*442-510	Welding Fundamentals	1.00	36
2	*419-567	Basic Hydraulics Beginning	1.00	36
2	*419-551	Pneumatics Apprentice	1.00	36
2	*419-511	Hydraulic Pumps Apprenticeship	.75	24
2	*420-520	Precision Measurement	.50	12
3	*423-730	Bearings	.75	24
3	*423-565	Principles of Rigging	.50	18
3	*423-716	Metallurgy	1.00	36
3	*423-503	Packings, Seals, Gaskets	.50	16
3	*423-508	Fasteners	.25	8
3	*423-507	Vacuum Systems	.75	20
3	*423-504	Pipefitting and Valves	.75	24
4	*423-724	Preventative & Predictive Maintenance	1.00	36
4	*423-731	Couplings & Alignment	1.00	36
4	*423-501	Equipment Installation	.75	24
4	*423-502	Mechanical Power Transmission	.75	24
4	*423-506	Sheet Metal & Structural Steel Fab	.75	24

### Training at a Glance

- Time to complete – Approximately 4 years
- On the job time – 7424 Hours
- Related Instruction Time – 578 Hours
- Additional training – First Aid and CPR certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.  
QUESTIONS?

PLEASE CONTACT:  
Gateway Technical College  
Apprenticeship Department  
262-564-2954  
[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.

## Machinist Apprentice (50-420-2) Effective 2024/2025

### Program Description

Machinists are highly skilled individuals who use machine tools, such as lathes, milling machines, and machining centers, to produce precision machined parts. Precision Machinists produce small batches or one-of-a-kind items. They use their knowledge of the working properties of materials and their skill with machine tools to plan and carry out the operation needed to make a variety of products that meet precise specifications. Along with operating machines that use cutting tools to shape work pieces, machinists also utilize machines that cut with lasers, water jets, or electrified wires. While some of the computer controls may be similar, Machinists must understand the unique cutting properties of these different machines. As engineers create new types of machine tools and new materials to machine, machinists must constantly learn new machining properties and techniques.

### Program Learning Outcomes

Graduates will be able to:

1. Inspect parts and material.
2. Operate milling machines, including manual and/or CNC controlled.
3. Operate drilling machines, including manual and/or CNC controlled.
4. Operate turning machines, including manual and/or CNC controlled.
5. Operate cut-off machines, including manual and/or CNC controlled.
6. Apply metallurgical principles to materials and work processes.
7. Assemble parts according to specifications.
8. Local optional work processes may be used as additional college program outcomes.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Students must have a valid driver's license and pass an aptitude test.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Machinist Apprentice (50-420-2) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*420-560	Machine Trades/Mathematics 3	1.00	36
1	*801-500	Apprentice Communications	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*420-516	Precision Measurement	1.00	36
2	*420-505	Machine Technology I	1.00	36
2	*420-561	Machine Trades/Mathematics 4	1.00	36
2	*421-516	Blueprint Reading 2/Machine Trades	1.00	36
2	*420-517	Cutting Tools	.50	18
2	*420-518	Machinery Handbook	.25	9
2	*420-519	Geometric Dimensioning & Tolerancing	.25	9
3	*439-535	Jig and Fixture Design	.75	27
3	*423-716	Metallurgy	1.00	36
3	*420-592	Numerical Control	1.00	36
3	*420-495	Grinding, Drilling, & Cut-Off Machine	1.00	36
3	*420-494	Cost Estimating	.25	9
4	*420-506	Basic CAD/CAM	1.00	36
4	*420-509	CNC Programming and Planning	1.00	36
4	*439-507	Milling/Turning 1	1.00	36
4	*439-508	Milling and Turning II	1.00	36

### Training at a Glance

- Time to complete – Approximately 4 years
- On the job time – 7888 Hours
- Related Instruction Time – 576 Hours
- Additional training – Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



# Maintenance Mechanic/Millwright Apprentice (50-423-1) Effective 2024/2025

### Program Description

Maintenance mechanics and millwrights install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings. They keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe-fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing; aligning; and balancing new equipment; and repairing buildings, floors, or stairs.

### Program Learning Outcomes

Graduates will be able to:

1. Demonstrate proper rigging techniques.
2. Select an appropriate power transmission system for a given application.
3. Identify suitable pumps for given applications.
4. Recommend bearings for given applications.
5. Plan for fabricating parts and assemblies according to specifications.
6. Apply operational and troubleshooting principles to fluid power systems.
7. Layout an equipment installation plan.
8. Plan maintenance schedules for a given system.

### Essential Career Competencies

Gateway’s six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentice Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway’s Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 (“C”) or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of “C” or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Maintenance Mechanic/Millwright Apprentice (50-423-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*804-502	Math 1 for Apprentice	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*462-503	Industrial Mechanic Fundamentals I	1.00	36
1	*462-504	Industrial Mechanic Fundamentals II	1.00	36
2	*442-510	Welding Fundamentals	1.00	36
2	*419-567	Basic Hydraulics Beginning	1.00	36
2	*419-551	Pneumatics Apprentice	1.00	36
2	*419-511	Hydraulic Pumps Apprenticeship	.75	24
2	*420-520	Precision Measurement	.50	12
3	*423-730	Bearings	.75	24
3	*423-565	Principles of Rigging	.50	18
3	*423-716	Metallurgy	1.00	36
3	*423-503	Packings, Seals, Gaskets	.50	16
3	*423-508	Fasteners	.25	8
3	*423-507	Vacuum Systems	.75	20
3	*423-504	Pipefitting and Valves	.75	24
4	*423-724	Preventative & Predictive Maintenance	1.00	36
4	*423-731	Couplings & Alignment	1.00	36
4	*423-501	Equipment Installation	.75	24
4	*423-502	Mechanical Power Transmission	.75	24
4	*423-506	Sheet Metal & Structural Steel Fab	.75	24

### Training at a Glance

- Time to complete – Approximately 4 years
- On the job time – 7424 Hours
- Related Instruction Time – 578 Hours
- Additional training – First Aid and CPR certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started,  
Gateway's Apprenticeship Department is happy to help.  
QUESTIONS?  
PLEASE CONTACT:  
Gateway Technical College  
Apprenticeship Department  
262-564-2954  
[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



# Maintenance Technician Apprentice (50-464-1) Effective 2024/2025

## Program Description

The Maintenance Technician works on mechanical and electrical equipment and machines in paper mills, foundries, production mills, food processing, schools and hospitals. The mechanical would include installing equipment, repair and replace units, maintaining equipment and using machines such as lathes, drill presses and various hand tools. The electrical would include working with electrical drawings, troubleshooting electrical motors, AC and DC drives, PLC's (programmable logic controllers), and solid-state devices.

## Program Learning Outcomes

Graduates will be able to:

1. Apply AC and DC theory to an industrial setting.
2. Apply the National Electric Code requirements to industrial equipment and facilities.
3. Apply operational principles to transformers.
4. Maintain electric motors and motor controls.
5. Apply operational and troubleshooting principles to variable speed drives.
6. Apply operational and troubleshooting principles to programmable logic controllers and automation equipment.
7. Communicate trade and occupational related information effectively.
8. Demonstrate proper rigging techniques.
9. Select an appropriate power transmission system for a given application.
10. Identify suitable pumps for given applications.
11. Recommend bearings for given applications.
12. Apply operational and troubleshooting principles to fluid power systems.
13. Plan maintenance schedules for a given system.

## Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

## Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

## Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

## Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Maintenance Technician Apprentice (50-464-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here. Taking courses in the order shown will help you stay on track and graduate according to your academic plan. Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*804-502	Math 1 for Apprentice	1.0	36
1	*421-515	Blueprint Reading I/Metal Trades	1.0	36
1	*462-503	Industrial Mechanic Fundamentals I	1.0	36
1	*462-504	Industrial Mechanic Fundamentals II	1.0	36
2	*442-510	Welding Fundamentals	1.0	36
2	*419-567	Basic Hydraulics Beginning	1.0	36
2	*419-551	Pneumatics Apprentice	1.0	36
2	*419-511	Hydraulic Pumps Apprenticeship	.75	24
2	*420-520	Precision Measurement	.50	12
3	*423-730	Bearings	.75	24
3	*423-565	Principles of Rigging	.50	18
3	*423-731	Couplings & Alignment	1.0	36
3	*423-716	Metallurgy	1.0	36
3	*423-724	Preventative & Predictive Maintenance	1.0	36
4	*423-501	Equipment Installation	.75	24
4	*413-701	Elect. Safety & Print Reading	1.0	36
4	*413-528	Direct Current Fundamentals	1.0	36
4	*413-538	Alternating Current Fundamentals	1.0	36
5	*413-705	Codes for Industrial Electricians	2.25	78
5	*413-602	AC & DC Motors	1.0	36
5	*413-548	Programmable Logic Controllers I	1.0	36
6	*413-577	Motor Controls 1	1.0	36
6	*413-589	Transformers	1.0	36
6	*413-603	Solid State Electronics Basics	1.0	36
6	*413-604	Variable Speed Drives	1.0	36

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 9280 Hours
- Related Instruction Time – 864 Hours
- Additional training – First Aid and CPR certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet. (\*) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.





# Mechatronics Technician Apprentice (50-620-1)

## Effective 2024/2025

### Program Description

This occupation requires combined knowledge of electrical, electronic and mechanical systems used in industrial plants. Workers frequently support automation and robotic technologies. Work processes include installing, repairing, and maintaining equipment/devices. Troubleshooting systems involved in manufacturing and process control are critical requirements for workers in these occupations. Workers typically operate and debug, industrial computer and communication systems including PLC's, PCs, and HMI technologies. Workers machine metal and other materials; fabricate parts and weld/join components. Documenting work performed, maintaining accurate records, and working in a collaborative environment are critical interpersonal skills. Employees in some, but not all plants, support facilities, utilities and grounds.

### Program Learning Outcomes

Graduates will be able to:

1. Perform work safely.
2. Install mechanical equipment.
3. Install electrical equipment.
4. Maintain mechanical equipment.
5. Troubleshoot mechatronic systems.
6. Operate machine shop tools and machines.
7. Produce precision fabricated parts.
8. Maintain automated mechatronic systems.
9. Modify devices and systems.
10. Maintain documents and records.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentice Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



## Mechatronics Technician Apprentice (50-620-1) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*620-510	Math Review for Mechatronics	1.00	36
1	*620-511	Mechatronic Principles	2.00	72
1	*620-514	DC Electricity for Mechatronic	1.00	36
2	*620-515	AC Electricity for Mechatronics	1.00	36
2	*620-512	Motors & Motor Controls	2.00	72
2	*620-516	National Electrical Code	1.00	36
3	*620-517	Fluid Power Systems	2.00	72
3	*620-520	Servos and Drives	1.00	36
3	*620-508	Power Transmission Systems	1.00	36
4	*620-513	Machining Concepts	2.00	72
4	*620-521	Intro to Programmable Logic Controllers	2.00	72
5	*620-522	HMI Technologies & PLC Applications	2.00	72
5	*620-518	Introduction to Robotic System	2.00	72
6	*620-519	Introduction to Robotic Integration	3.00	108
6	*620-509	Welding Basics	1.00	36

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 9136 Hours
- Related Instruction Time – 864 Hours
- Additional training – Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started,  
Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

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(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



## Mold Maker Apprentice (50-439-5) Effective 2024/2025

### Program Description

Mold Makers set up and operate plastic molding machines, such as compression or injection molding machines, to mold, form, or cast thermoplastic materials to specified shape. In this apprenticeship, learn basic theory in machining, print reading and metallurgy, in addition to knowledge in stamping, mold making blanking, jigs and fixtures, plastics and die casting. Computer-assisted CNC machining and die and mold design are also covered.

### Program Learning Outcomes

Graduates will be able to:

1. Inspect parts and material.
2. Apply knowledge of milling machine operations, including manual and/or CNC controlled.
3. Apply principles of drilling machine operations, including manual and/or CNC controlled.
4. Compare turning machine operations, including manual and/or CNC controlled.
5. Explore precision grinding machines including manual and/or CNC controlled.
6. Compare cut-off machine operations, including manual and/or CNC controlled.
7. Apply metallurgical principles to materials and work processes.
8. Design jigs and fixtures.
9. Summarize practices to produce a variety of molds for manufacturing operations.
11. Local optional work processes may be used as additional college program outcomes.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Mold Maker Apprentice (50-439-5) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*420-560	Machine Trades/Mathematics 3	1.00	36
1	*801-500	Apprentice Communications	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*420-516	Precision Measurement	1.00	36
2	*420-505	Machine Technology I	1.00	36
2	*420-561	Machine Trades/Mathematics 4	1.00	36
2	*421-516	Blueprint Reading 2/Machine Trades	1.00	36
2	*420-517	Cutting Tools	.50	18
2	*420-518	Machinery Handbook	.25	9
2	*420-519	Geometric Dimensioning & Tolerancing	.25	9
3	*439-535	Jig and Fixture Design	.75	27
3	*423-716	Metallurgy	1.00	36
3	*420-592	Numerical Control	1.00	36
3	*420-495	Grinding, Drilling, & Cut-Off Machine	1.00	36
3	*420-494	Cost Estimating	.25	9
4	*439-505	Stamping and Die Design Applications	1.00	36
4	*439-506	Mold Die Design Applications	1.00	36
4	*420-569	Electrical Discharge Machining	1.00	36
4	*439-507	Milling/Turning 1	1.00	36

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 9824 Hours
- Related Instruction Time – 576 Hours
- Additional training – First Aid and CPR Certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 ("C") or above for these major courses to meet graduation requirements.



# Plumbing Apprentices (50-427-3) Effective 2024/2025

### Program Description

Plumbing apprentices plan, install, troubleshoot, and repair all aspects of water supply, waste, and vent systems, as well as gaseous fuel systems, following the Wisconsin Administrative Plumbing Code. They interpret blueprints, analyze technical specifications, and follow instructions on what and where work is to be done. They plan their work in a logical sequence; coordinate it with other trades, perform work in a quality manner and in a reasonable amount of time. They choose appropriate tools, equipment, and materials to perform their duties. They communicate effectively and are good team members.

### Program Learning Outcomes

Graduates will be able to:

1. Apply state plumbing code requirements to the installation and repair of sanitary drain systems.
2. Apply state plumbing code requirements to the installation and repair of venting systems.
3. Apply state plumbing code requirements to the installation and repair of water supply systems.
4. Apply state plumbing code requirements to the installation and repair of storm drain systems.
5. Apply State plumbing code requirements to the installation and repair of POWTS systems.
6. Refer to the Wisconsin Administrative Plumbing codes.
7. Prepare for Journey level licensure examination.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. Go to the Plumbers and Steamfitters Training Center and fill out an application:  
K-R-W Plumbing Apprenticeship Committee  
14011 Spring Street  
Sturtevant, WI 53177  
262-732-4103
2. Have high school transcripts sent to the Plumbers and Steamfitters Training Center. Transcript request forms are available at the Training Center.
3. Achieve a passing score on the algebra, arithmetic and reading portions of the Accuplacer test, which is available at Gateway's Kenosha and Racine campuses for \$15. Contact the Testing Center at 262-564-2542 to schedule an appointment.
4. The Plumbing Apprenticeship Committee will set up interviews for those persons who have high school transcripts and passing Accuplacer scores on file. Interviews are scheduled twice a year at the Plumbers and Steamfitters Training Center.
5. After passing the interview, your name will be placed on a list of eligible contractors when applying for apprenticeship jobs.
6. You will receive a letter of introduction to be presented to local contractors when applying for apprenticeship jobs. You must find a contractor to hire you before you can become an apprentice.
7. Once hired by a contractor, you'll be notified that you are an apprentice and will sign a contract with the Bureau of Apprenticeship Standards.
8. Once your contract is in place, Gateway's Apprenticeship Department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be in good physical condition and able to complete actively strenuous work.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Students must have a valid driver's license.
5. Students must pass an aptitude test, complete a personal interview and submit an application.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.



# Plumbing Apprentices (50-427-3) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course	Course Name	Credits	Hours
*427-500	Plumbing I/Related	2.00	72
*427-501	Plumbing II/Related	2.00	72
*427-502	Plumbing III/Related	2.00	72
*427-503	Plumbing IV/Related	2.00	72
*427-504	Plumbing V/Related	2.00	72
*427-505	Plumbing VI/Related	2.00	72
*427-579	Plumbing Advanced Topics	2.00	72
*427-578	Green Plumbing Applications	2.00	72

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 7428 Hours
- Related Instruction Time – 576 Hours
- Additional training – 260 hours extra in: Plumbing Applications Lab, Plumbing Blueprint Reading, Plumbing Repair, Transition to Trainer, Isometric Interpretation & Drawing, Transit/Level/Laser, Welding, Safety/OSHA, First Aid/CPR, Transition to Trainer during final year.
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway’s Apprenticeship Department is happy to help.

QUESTIONS?

PLEASE CONTACT:

Gateway Technical College  
Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
(\* ) indicates students must achieve a minimum of 2.0 (“C”) or above for these major courses to meet graduation requirements.



## Press Set-Up Operator Apprentice (50-420-10) Effective 2024/2025

### Program Description

Press Set-up Operators are responsible for setting up and operating power presses to trim, punch, shape, notch, draw, or crimp metal, composite, or plastic stock: Assembles, installs, and align dies in press according to specifications, using feelers, shims, templates, bolts, clamps, and wrenches.

### Program Learning Outcomes

Graduates will be able to:

1. Comprehend basic dimensions while measuring with precision measurement tools.
2. Understand basic shop math.
3. Basic knowledge and understanding of fabrication, hydraulic press and/or punch operations including basic set up is desired.
4. Be able to work with various types of metal forming constraints with guidance.
5. Be able to read and understand blueprints and other shop drawing aids.
6. Practice safety conscious behavior.
7. Be able to visually inspect parts for non-conformance to blue prints.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprentice application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentice Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.
4. Must be able to lift up to 50lbs and push/pull 100 to 2500 lbs using carts and moving equipment.
5. Must wear protective shoes, safety glasses, gloves, shop shirt and ear protection while working around loud noises.

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

## Press Set-Up Operator Apprentice (50-420-10) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Course	Course Name	Credits	Hours
*420-471	Machine Math Pre-Tech	1.00	36
*421-515	Blueprint Reading I/Metal Trades	1.00	36
*420-560	Machine Trades/Mathematics 3	1.00	36
*420-425	Shop Safety	.65	25
*420-334	Precision Measuring and Gauging	1.00	36
*420-519	Geometric Dimensioning & Tolerancing	.25	9
*420-329	Industrial Print Interpretation	2.00	72
*420-579	Visual Inspection	.20	8
*439-505	Stamping and Die Design Applications	1.00	36

### Training at a Glance

- Time to complete – Approximately 2 years
- On the job time – 4156 Hours
- Related Instruction Time – 294 Hours
- Additional training – First Aid and CPR Certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started, Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

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[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
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## Tool & Die Apprenticeship (50-439-3) Effective 2024/2025

### Program Description

Tool and die makers analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, gauges, jigs, fixtures (devices that hold metal while it is shaped, stamped or drilled), gauges, and machinist's hand tools. Die makers construct metal forms (dies) to shape metal in stamping and forging operations. A tool and die maker operate various machine tools to make and repair molds, special machinery, tools, dies, jigs, fixtures and die cast dies. In this apprenticeship, learn basic theory in machining, blueprint reading and metallurgy, in addition to knowledge in stamping, mold making blanking, jigs and fixtures, plastics and die casting. Computer-assisted CNC machining and die and mold design are also covered.

### Program Learning Outcomes

Graduates will be able to:

1. Inspect parts and material.
2. Operate milling machines, including manual and/or CNC controlled.
3. Operate drilling machines, including manual and/or CNC controlled.
4. Operate turning machines, including manual and/or CNC controlled.
5. Operate precision grinding machines including manual and/or CNC controlled.
6. Operate cut-off machines, including manual and/or CNC controlled.
7. Apply metallurgical principles to materials and work processes.
8. Assemble parts according to specifications.
9. Design jigs and fixtures.
10. Produce dies for a variety of machining and manufacturing operations.
11. Local optional work processes may be used as additional college program outcomes.

### Essential Career Competencies

Gateway's six essential career competencies are the general attitudes and skills promoted and assessed by all programs. All Gateway graduates will develop skills in:

- Communication Competence
- Professionalism and Career Management
- Cultural Competence
- Critical Thinking and Problem Solving
- Teamwork and Collaboration
- Technology Competence

Gateway Technical College reserves the right to modify curriculum requirements for students who interrupt enrollment for one year or take over seven years to complete. Tuition and material fees are determined by the board of the Wisconsin Technical College System. Consult My Gateway for exact fee amounts. Occasionally, the District may offer a particular course out of published sequence. By doing so, the District does not obligate itself to offer succeeding courses out of published sequence.

### Get Started as an Apprentice

1. To begin identifying or planning your apprenticeship, contact the local Apprenticeship Training Representative at 262.564.3210
2. If an employer wishes to hire you, they will submit an [apprenticeship application](#) to the Wisconsin Department of Workforce Development (DWD). If the DWD determines that you meet the Bureau of Apprentices Standards qualifications, you will be given a credential notice.
3. Once your permit is in place, Gateway's Apprenticeship department will communicate with you regarding registration, classes and books.

### Graduation Requirements

- \*Minimum of 2.0 ("C") or above for all required courses.
- Meet minimum hourly paid related instruction requirements per WI Registered Apprenticeship Contract.

### Notes

1. Students must be physically able to perform the job.
2. Students must be 18 years of age and submit official high school, GED, or HSED transcript including a graduation or passing date.
3. Students must complete all courses with a grade of "C" or better.



## Tool & Die Apprentice (50-439-3) Effective 2024/2025

The course sequence shown on this sheet is the recommended path to completion. Courses will be scheduled in the terms indicated here.  
Taking courses in the order shown will help you stay on track and graduate according to your academic plan.  
Courses in this program may be offered in a variety or combination of formats (for example: in-person, video conferencing, online, etc.).

### Pathway to Success

Term	Course	Course Name	Credits	Hours
1	*420-560	Machine Trades/Mathematics 3	1.00	36
1	*801-500	Apprentice Communications	1.00	36
1	*421-515	Blueprint Reading I/Metal Trades	1.00	36
1	*420-516	Precision Measurement	1.00	36
2	*420-505	Machine Technology I	1.00	36
2	*420-561	Machine Trades/Mathematics 4	1.00	36
2	*421-516	Blueprint Reading 2/Machine Trades	1.00	36
2	*420-517	Cutting Tools	.50	18
2	*420-518	Machinery Handbook	.25	9
2	*420-519	Geometric Dimensioning & Tolerancing	.25	9
3	*439-535	Jig and Fixture Design	.75	27
3	*423-716	Metallurgy	1.00	36
3	*420-592	Numerical Control	1.00	36
3	*420-495	Grinding, Drilling, & Cut-Off Machine	1.00	36
3	*420-494	Cost Estimating	.25	9
4	*439-505	Stamping and Die Design Applications	1.00	36
4	*439-506	Mold Die Design Applications	1.00	36
4	*420-569	Electrical Discharge Machining	1.00	36
4	*439-507	Milling/Turning 1	1.00	36

### Training at a Glance

- Time to complete – Approximately 5 years
- On the job time – 9888 Hours
- Related Instruction Time – 576 Hours
- Additional training – First Aid and CPR Certifications; Transition to Trainer
- Consult the Wisconsin Bureau of Apprenticeship Standards website for more information

If you need assistance getting started,  
Gateway's Apprenticeship Department is happy to help.

QUESTIONS?

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Apprenticeship Department  
262-564-2954

[apprenticeship@gtc.edu](mailto:apprenticeship@gtc.edu)

Notes associated with courses (identified by a superscript number at the end of the course title) are located on the front of the sheet.  
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## Certificates of Completion

In addition to the state-approved Associate Degrees, Technical Diplomas, and Advanced Technical Certificates that are part of the degree-granting programs at Gateway, a variety of Gateway Certificates are also offered. The courses required to complete these certificates are selected from various degree programs to meet specific and unique occupational needs. Students must complete a certificate program with a minimum of a 2.0 Program GPA. The following list represents those programs which will be provided by Gateway during the 2024-2025 academic year. Additional information about the certificates can be found at [gtc.edu/certificates](http://gtc.edu/certificates).

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### *Accounting – Elkhorn, Kenosha, Racine Campuses & Online*

Small Business Accounting (90-101-1)	20 Credits
Tax Preparer Assistant (61-101-2)	11 Credits
Payroll Assistant (61-101-3)	16 Credits

### *Administrative Professional– Online*

Business Professional Essentials (61-106-1)	15 Credits
Receptionist (61-106-3)	12 Credits

### *Automotive Technology – Horizon Center*

Automotive Under Car Technician (61-602-1)	11 Credits
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### *Civil Engineering Technology – Highway Technology – iMET Center & Elkhorn Campus*

Material Testing Inspector (61-607-1)	10 Credits
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### *CNC Production Technician – Elkhorn Campus & iMET Center*

CNC Operator (61-444-3)	12 Credits
Quality Control Technician (90-444-2)	7 Credits

### *Cosmetology – Racine, Kenosha and Burlington Campuses*

Nail Technician (90-502-1) (Racine Only)	9 Credits
Retail Beauty Advisor (61-502-1)	4 Credits

### *Criminal Justice Studies – Kenosha, Racine Campuses & Online*

Security Professional (61-504-6)	12 Credits
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NOTE: Students must complete a certificate program with a minimum of a 2.0 Program GPA.

## Certificates of Completion

### *Culinary Arts – Racine & Elkhorn Campuses*

Baking and Pastry Arts (61-316-3)	12 Credits
Basic Cooking Skills (61-316-4)	12 Credits
Intro to Butchery & Meat Processing (90-316-10) (Elkhorn Only)	9 Credits

### *Diesel Equipment Mechanic – Horizon Center*

Diesel Mechanic’s Assistant (61-412-1)	13 Credits
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### *Early Childhood Education – Racine Campus & Online*

Infant/Toddler Credential (90-307-2) (Online Only)	12 Credits
Group Child Care Essentials (61-307-6)	6 Credits
Child Care Teacher (61-307-5) (Online Only)	18 Credits

### *Electromechanical Maintenance Technician – iMET & Lakeview Center*

Mechanical Maintenance Technician (61-620-3)	11 Credits
Fanuc Robot Certification (90-620-2)	2 Credits

### *Foundations of Teacher Education – Online*

Intro to Paraeducator Careers (61-522-1)	12 Credits
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### *General Studies – World Languages – Kenosha Campus*

Spanish Proficiency (90-802-1)	16 Credits
Spanish Proficiency for First Responders (90-802-4)	15 Credits
Spanish Proficiency for Healthcare Providers (90-802-2)	15 Credits

### *Greenhouse Operations – Kenosha & Elkhorn Campus*

Environmental Studies (90-001-8) (Also Offered Online)	3 Credits
Horticulture Basics (61-001-4) (Kenosha, Racine Only)	9 Credits
Professional Floral Design (90-001-4) (Kenosha Only)	12 Credits

### *Health and Human Services - Racine & Kenosha Campus*

Aspects of Disabilities (90-520-1) (Kenosha Only)	18 Credits
Case Management (90-520-4) (Also Offered In Elkhorn)	9 Credits
Gerontology (90-520-2) (Kenosha Only)	18 Credits
Child Welfare (90-520-3)	18 Credits
Alcohol & Other Drug Abuse (AODA) (90-550-1)	24 Credits

NOTE: Students must complete a certificate program with a minimum of a 2.0 Program GPA.

## Certificates of Completion

### *Information Technology – Online*

Google IT Support Professional (90-154-3)	5 Credits
IT - Artificial Intelligence and Machine Learning (90-156-1)	15 Credits
IT - Data Analytics (90-156-2)	15 Credits
IT - Full Stack Web Developer Certificate (90-152-6)	13 Credits

### *Leadership Development – Online*

Human Resources Management (90-116-10)	9 Credits
Leadership Essentials (61-196-4)	9 Credits
Technical Supervisor (90-196-13)	9 Credits

### *Marketing – Elkhorn-Kenosha-Racine Campuses & Online*

Marketing-Sales (90-104-2)	12 Credits
Sports and Event Marketing (90-104-7)	15 Credits
Digital Marketing - Social Media (90-104-11) (Online Only)	6 Credits

### *Mechanical Design Technology - iMET Center*

CAD Technology Certificate (90-606-4)	7 Credits
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### *Nursing-Associate Degree – Kenosha Campus*

LPN to ADN Bridge (10-809-2)	1.25 Credits
Paramedic to ADN Bridge (10-809-0) (Racine Only)	10 Credits

NOTE: Students must complete a certificate program with a minimum of a 2.0 Program GPA.

### **001-103**

#### **Permaculture Design Certification**

**Credits: 3.00**

Permaculture draws from several disciplines including organic farming, agroforestry, integrated farming, sustainable community development, alternative/natural building and applied ecology. This course will teach participants techniques to reduce dependence on fossil fuels and increase the long term sustainability of their homes and communities. Integrating organic food production into urban landscapes is a major focus of the course. Students will receive a Permaculture Design Certificate upon successful completion of the course and a design project.

### **001-104**

#### **Greenhouse Systems**

**Credits: 3.00**

Identify greenhouse structural components and environmental controls such as heating, cooling and lighting systems. Plan production cycles, describe how new plants are selected from plant breeders and obtained from suppliers. Assemble a hydroponic system from start to finish. Learn to identify, propagate and care for foliage plants, bulbs and flowering greenhouse crops. Participate in field trips to greenhouse operations.

PREREQUISITES: Complete course 001-151 - Greenhouse Crops minimum grade C-;

### **001-105**

#### **Dendrology and Silvics**

**Credits: 3.00**

Students explore how trees interact with their environment and with one another, at different spatial and temporal scales. Concepts developed in botany and ecology are further examined with an emphasis on woody plant classification and the life history and characteristics of forest trees. Skills acquired through this course are tree identification and the ability to identify where different tree species thrive. PREREQUISITES: Complete course 001-118 - Landscape Plant Identification TAKE 801-136 - English Composition 1 Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **001-107**

#### **Plant Biology for Horticulture**

**Credits: 3.00**

Study of structure and function of plants and how they are affected by light, water, temperature and nutrient availability. Labs include hands-on experience in potting, propagation, construction of dish gardens and terrariums.

**001-108****Business of Urban Farming****Credits: 3.00**

This class will provide the skills to start and operate a fresh market vegetable business. Growing food is the first step, but we will teach you how to make smart decisions about marketing, pricing, capitalization and labor. You will become aware of current opportunities in urban farming, explore objectives, assess personal and financial resources, conduct preliminary market research, and develop a business plan. We will discuss market gardening start-up, weekly sales targets, yield and pricing, organic certification, organic marketing and labeling, and analyze the value of CSA's, direct marketing and farmers' markets. COREQUISITES: Take 001-109 - Urban Farming and Market Gardening; Minimum Grade C;

**001-109****Urban Farming and Market Gardening****Credits: 3.00**

Sustainable, intensive urban farming forms the important basis for long-term profitability because it maintains quality soils that can provide long-term stable yields. Our hands-on training in biointensive organic growing methods will help you advance from gardening novice to professional urban farmer. Learn about fertility management, greenhouse use, season extension, pest management, equipment needs, planning and budgeting. The course will focus on building and managing healthy soil and understanding how soils, plants, animals, and people form a dynamic living organism. We will use this knowledge to explore the methods to grow organic, nutrient dense produce. PREREQUISITES: Take 001-153 - Fruit Science; Minimum Grade C-; Take 001-142 - Vegetable Science; Minimum Grade C-;

**001-110****Tree Growth and Development****Credits: 2.00**

Students examine the biology of tree systems and explore tree growth and development. Compartmentalization of wounds and adaptation of trees to their surrounding and environment are emphasized. Through participation in this course, students will acquire a framework for arboriculture.

**001-111****Horticulture Practicum****Credits: 3.00**

Work independently, or in small groups, with instructor and staff to gain in depth knowledge and experience in one of five program specialty areas; greenhouse growing , floral retailing and events, trial and display gardens, urban farm. Can also be used for internship with horticulture employer. PREREQUISITES: Course 001-147 - Soils and Plant Nutrition and 001-151 - Greenhouse Crops with a minimum grade of C-

**001-113****Ornamental Plant Health Care**

**Credits: 3.00**

This course focuses on classification and identification of ornamental plant insects, diseases, and injury caused by non-living agents. Students will examine the methods by which living organisms and non-living environmental factors cause plant damage. Skills in diagnostics, damage assessment, sample preparation, and control strategies are acquired. PREREQUISITES: Complete course 001-105 - Dendrology and Silvics TAKE 001-118 - Landscape Plant Identification Take 001-189 - Plant Health Care & Treatments OR 001-188 - Integrated Pest Management

**001-115****Tree Care Capstone****Credits: 1.00**

In this course, students integrate occupational skills with professional practice. Students examine tree care operations, communications, and planning by engaging in opportunities to report work performed, manage resources, and apply communication and interpersonal skills to a variety of occupational situations. Upon completion of the course, students will be able to provide clients with ethical and appropriate arboricultural scenarios. PREREQUISITES: Complete course 001-157 - Tree Care Practicum 2 with a minimum grade of C- course 001-105 - Dendrology and Silvics with a minimum grade of C or TR; Take 001-105 - Dendrology and Silvics; Minimum Grade C,TR;

**001-117****Landscape Design/Advanced****Credits: 3.00**

Advanced study of landscaping designed to fine-tune landscape drawing techniques. Course focuses on landscape construction methods, Japanese-style design principles, designing for energy conservation and how to attract wildlife. Labs include drawing plans and blueprinting. PREREQUISITES: Course 001-140 - Landscape Design/Introduction

**001-118****Landscape Plant Identification****Credits: 2.00**

This course introduces students to woody shrub and tree identification of species commonly used in Wisconsin commercial and residential landscapes. Students develop techniques and basic skills necessary for plant identification and learn the cultural practices required to grow healthy woody plants.

**001-122****Horticulture Business Operations****Credits: 3.00**

Simulated operation of horticulture industries utilizing principles of marketing, economics and office management. Includes hands-on practice on computers used in each branch of the horticulture industry. Field trips and practice work are involved. PREREQUISITES: Take 001-136 - Landscape Management; Take 001-160 - Landscape Construction and Enhancements;

**001-124****Fundamentals of Aerial Tree Work****Credits: 2.00**

Students examine the basic safety requirements, equipment, and techniques employed by arborist who work aloft. Using a rope-and-harness and an aerial lift, students develop the skills to conduct aerial arboriculture (tree care). An emphasis is placed on recognizing electrical hazards, tying knots, tree ascension, limb walking, and maneuvering through the tree canopy. Students who choose to remain on the ground learn the skills to assist a climber working aloft.

**001-128****Horticulture Marketing****Credits: 3.00**

Learn how plants and flowers are marketed locally and internationally. This class offers professional marketing techniques for garden centers, greenhouses and floral shops. Students visit garden centers, flower shops, wholesale suppliers and trade markets to identify trends and meet with managers. Students gain practical experience organizing a plant promotion including identifying the customer, purchasing and pricing plants, advertising.

**001-129****Pesticide Applicator Certification****Credits: 1.00**

Learn how to apply pesticides safely and legally. This class prepares students to take the Wisconsin State pesticide applicator exam with the certification exam given during class. Anyone applying chemicals to someone else's property is required to obtain this certification.

**001-130****Landscape Plants Trees/Shrubs Deciduous****Credits: 3.00**

Study of deciduous trees, shrubs, and vines grown for landscape use in residential and commercial settings. Examines environmental requirements, dormant characteristics, and landscape applications. Labs involve on-site identification of plant material. PREREQUISITES: Complete course 001-185 - Introduction to Horticulture with minimum grade C-

**001-132****Landscape Plants Evergreen****Credits: 3.00**

Continued emphasis on identification and evaluation of landscape plants with emphasis on evergreen landscape materials. PREREQUISITES: Take 001-185 - Introduction to Horticulture; Minimum Grade C-

**001-133**



## **Chainsaw Safety and Operation**

**Credits: 2.00**

Students acquire the skills to safely operate a chainsaw in the arboricultural industry. Emphasis is placed on identifying the importance and adopting the methods of personal protective equipment, safe chainsaw operation, routine maintenance, and common chainsaw cutting techniques in accordance with best management practices and current industry standards. Students will develop chainsaw skills in a variety of field exercises that focus on techniques used in tree pruning and removal, including the by-pass cut, open face notching, bore cutting, and wedging.

**001-136**

## **Landscape Management**

**Credits: 3.00**

Maintenance of industrial, public, institutional, and private grounds. Also covers operation and management of an ornamental nursery. Labs include pruning, balling and burlapping, procedures for preventing winter injury, and field trips.

**001-140**

## **Landscape Design/Introduction**

**Credits: 3.00**

Covers how to plan and draw a professional landscape design. Focuses on selecting correct plant material, proper placement, and uses of landscape construction elements. Practical design and drawing experience provided in lab. PREREQUISITES: Take 001-143 - Herbaceous Plants; Minimum Grade C-; Take 001-146 - Sustainable Landscape; Minimum Grade C-; COREQUISITES: Take 001-130 - Landscape Plants Trees/Shrubs Deciduous Minimum Grade C-;

**001-142**

## **Vegetable Science**

**Credits: 3.00**

Students will study methods of vegetable gardening and become familiar with basic annual and perennial vegetables, herbs and edible flowers. Organic growing methods, composting, pest and disease control, and self-sustaining gardening methods will be discussed in detail. Field trips to local market gardens will be included in the course.

**001-143**

## **Herbaceous Plants**

**Credits: 3.00**

Learn to identify and care for annual and perennial flowering plants. Visit local gardens and professional sites to study plants and view design styles. Graphic skills used to create professional flower bed designs is also taught. Hands on experience propagating annuals and perennials and working with tropical foliage in the Gateway greenhouse is also included. COREQUISITES: Complete 001-185 - Introduction to Horticulture

**001-144****Floral Design I/Commercial****Credits: 3.00**

The basic principles, elements, and mechanics of floral design are practiced. Identification, care and handling of flowers and foliage will be involved. Includes hands-on designing of corsages, primary arrangements and holiday arrangements.

**001-146****Sustainable Landscape****Credits: 1.00**

Following guidelines set forth by the national Sustainable Site's Initiative students will learn how to improve the sustainability of urban landscapes. Identifying soil conditions, capturing storm water, using native plants, composting, waste and energy management are concepts learned in this class. Students have the opportunity to analyze their own property to find ways to improve sustainability while reducing chemical inputs and maintenance needs.

**001-147****Soils and Plant Nutrition****Credits: 1.00**

Students will study physical, chemical and biological properties of soils. Soil conservation practices, plant nutrition and composting will be discussed in detail. Labs involve soil testing and soil improvement.

**001-148****Plant Pests and Beneficials****Credits: 1.00**

Learn to identify the different lifecycle stages of plant pests in the greenhouse and landscape and how to control them using cultural, physical and biological control methods. Learn about beneficial insects and how to use predators, parasites and pathogens to control insects and diseases of plants.

**001-149****Horticulture Events****Credits: 3.00**

Educational seminars and workshops, celebrations, tours and travel are increasingly important to garden centers, botanic gardens and resorts. Learn to plan and organize horticulture and floral events from the initial planning stages through set up to break down and billing.

**001-150****Floristry****Credits: 3.00**

Practice skills learned in Floral Design 1 and expand knowledge to include: flower care and handling, visual merchandising and display, pricing floral products and services, customer service and sales, employee relations, specialty cut flowers and using local flowers, the wholesale and international floral trade.

PREREQUISITES: Course 001-144 - Floral Design I/Commercial with a minimum grade of C or TR;

### **001-151**

#### **Greenhouse Crops**

**Credits: 3.00**

Focuses on growing cut flowers, potted plants and foliage plants in a greenhouse. Provides practical experience in growing/maintaining crops using equipment, and solving problems. Includes field trips to commercial greenhouse operations. COREQUISITES: Complete course 801-136 - English Composition 1 Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **001-153**

#### **Fruit Science**

**Credits: 3.00**

Students will study methods of fruit growing and become familiar with basic cultivated tree fruits, small fruits, and native fruits and nuts. Organic growing methods, composting, pest and disease control, and self sustaining growing methods will be discussed in detail. Field trips to orchards and market fruit gardens will be included in the course.

### **001-154**

#### **Alternative Growing Methods**

**Credits: 3.00**

Students will study emerging growing methods that are 'outside the box'. These include vertical wall gardening, green roofs, hydroponics, aquaponics, and other innovative growing techniques. PREREQUISITES: Complete course 001-104 - Greenhouse Systems or 001-140 - Landscape Design/Introduction with minimum grade C -; TAKE 001-151 - Greenhouse Crops; MINIMUM GRADE C-, TR;

### **001-156**

#### **Tree Care Practicum 1**

**Credits: 2.00**

In this course, students examine ground and work site management, aerial rescue, and electrical hazard awareness. Building on acquired tree work skills, students develop occupational skills required by professional arborists. Students identify tree pruning needs, create a work plan to ascend the tree, and achieve the established goals. Students may complete the requirements of the course from aloft or from the ground. Upon completion of the course, students will be prepared to apply [basic] tree care methods, techniques, and behaviors of professional arborists. PREREQUISITES: Complete the following course 001-124 - Fundamentals of Aerial Tree Work minimum Grade C-

### **001-157**

## **Tree Care Practicum 2**

**Credits: 2.00**

In this course, students build on tree work skills acquired in Tree Care Practicum 1. In an urban setting, students practice supporting and conducting technical aerial tree removal. Students identify: methods of safe tree removal, aerial felling of branches, placement and use of rigging equipment, and chainsaw use in a tree. Safe and effective rigging operation techniques are emphasized. Methods to increase crew efficiency and support aerial crew members are presented and practiced. Upon completion of the course, students will be prepared to support and conduct aerial tree removal. PREREQUISITES: Complete course 001-156 - Tree Care Practicum 1 with a minimum grade C

**001-158**

### **Arboriculture/Urban Forestry Internship**

**Credits: 3.00**

In this course, students develop arboricultural occupational skills by working with an arboriculture-related employer. Students apply knowledge acquired in the classroom environment to a variety of tree care operations. They develop skills and experience and cultivate networking opportunities. Upon completion of this course, students will be able to assess their interests and abilities for jobs in the professional arboriculture industry. PREREQUISITES: Complete courses 001-156 - Tree Care Practicum 1 and 001-188 - Integrated Pest Management with minimum grades of C and complete course 001-110 - Tree Growth and Development with a minimum grade of C-;

**001-159**

### **3D Landscape Rendering**

**Credits: 1.00**

In this course, learners will take their landscape designs to the next level and bring them to life for clients with the use of 3D modeling software. This course is intended to build on skills gained in Advanced Landscape Design with the use of Dynscape software. Learners will explore and learn how to analyze, design, and represent landscapes through SketchUp as 3D modeling software. Upon completion of this course, learners will be able to integrate advanced landscape design skills and technologies to communicate an enhanced presentation to a client or clients. COREQUISITES: Take 001-117 - Landscape Design/Advanced

**001-160**

### **Landscape Construction and Enhancements**

**Credits: 3.00**

In this course, learners examine the principles of landscape features in the built environment focusing on hardscapes, low voltage lighting, and irrigation. Learners practice constructing, installing, and troubleshooting problems hands-on. They explore industry techniques by interpreting drawings, analyzing manufacturers' specifications, as well as, identifying and allocating structural components. Learners explore construction safety practices that regulate the landscape environment in which they will work. Upon successful completion of the course, learners will be able to create sustainable features intended to enhance the built environment. PREREQUISITES: Take 001-111 - Horticulture Practicum; Minimum Grade C;

### **001-173**

#### **Urban Tree Maintenance**

**Credits: 2.00**

Students explore and develop skills in the art and science of tree pruning. Young tree training and mature tree maintenance are emphasized. Learners use tree pruning techniques and follow safety requirements set by current industry standards.

### **001-178**

#### **Fruit and Vegetable Science**

**Credits: 3.00**

Students will study methods of vegetable and fruit gardening and become familiar with basic vegetables, tree fruits, and small fruits. Organic growing methods, composting, pest and disease control, and self-sustaining gardening methods will be discussed in detail. Field trips to market gardens and orchards will be central to the course.

### **001-180**

#### **Horticulture Portfolio**

**Credits: 1.00**

This capstone course will provide horticulture students the opportunity to pull together portfolio elements created in several classes into a cohesive professional portfolio for use when starting the career search. The portfolio will include samples of work, letters of reference, resume, horticultural resources and other pertinent career search and employment information, which can be used during employment interviews. Students will develop a high-quality professional portfolio as the final project. PREREQUISITES: Take 001-130 - Landscape Plants Trees/Shrubs Deciduous; Minimum Grade C-, TR; Take 001-143 - Herbaceous Plants; Minimum Grade C-,TR; Take 001-147 - Soils and Plant Nutrition; Minimum Grade C-,TR; Take 001-151 - Greenhouse Crops; Minimum Grade C-,TR;

### **001-181**

#### **Advanced Studies - Plant Biology**

**Credits: 1.00**

Students examine plant biology with emphasis on growth, reproduction, and cellular morphological and physiological processes. PREREQUISITES: Complete course 806-184 with a minimum grade of C

### **001-183**

#### **Applied Urban Forestry**

**Credits: 2.00**

Students acquire skills in techniques, tools, and pieces of equipment used to manage trees and tree populations that make up the urban forest. Students will explore tree inventory practices and pruning cycles used to maintain a city tree population. Students will also identify and examine the necessity of tree species diversity within urban environments. This course further explores arboricultural career options available from

commercial, municipal, and utility employers. PREREQUISITES: Complete courses 001-105 - Dendrology and Silvics TAKE 001-110 - Tree Growth and Development TAKE 001-173 - Urban Tree Maintenance

### **001-184**

#### **Ecological Basis for Natural Res Mgmt**

**Credits: 3.00**

Student explore the basic principles of ecology and examine their application in the management of natural resources. Exploration of the scientific method and interactions between and amongst species are emphasized. Students will acquire hands-on skills with measurements and data collection, research, preparation of technical reports, and use of computer models.

### **001-185**

#### **Introduction to Horticulture**

**Credits: 3.00**

Students examine the science and profession of horticulture, including its role and importance of throughout history, current trends, and careers. Learners will identify horticulture crops, crop use and interrelationships among the environment, plant growth, and plant development.

### **001-186**

#### **People, Resources, and Sustainability**

**Credits: 3.00**

Students examine the relationship between the human population and natural resources over time, and the effect of that relationship on sustainability. Global resources, environmental concerns, and the human dimensions of resource management are explored from biological, socioeconomic, and sustainability perspectives.

### **001-188**

#### **Integrated Pest Management**

**Credits: 2.00**

Students examine insect and pest identification, and are introduced to the diagnosis of tree health issues. The course explores how to manage tree health through invasive and non-invasive practices. Students will develop skills in chemical handling, mixing, calibration, and application via field exercises. Using the tools learned in the course, students will be prepared to take the Wisconsin Department of Agriculture and Consumer Protection's pesticide applicator exam which is proctored in the class.

### **001-189**

#### **Plant Health Care & Treatments**

**Credits: 2.00**

In this course, students examine insect and pest problems associated with the urban landscape. They analyze plant healthcare issues and identify methods of providing treatment through invasive and non-invasive

practices. The learners explore the difference between invasive and non-invasive treatment strategies. Upon completion of this course, the learners will be able to implement plant health care treatment strategies for common insect, disease, and abiotic issues in the Midwest.

### **001-190**

#### **Arboriculture Capstone**

**Credits: 2.00**

In this course, students integrate occupational skills with professional practice. Students examine tree care operations, communications, and planning by engaging in opportunities to report work performed, manage resources, and apply communication and interpersonal skills to a variety of occupational situations. Upon completion of the course, students will be able to explain safe work practices and to effectively lead work activities. Additionally, students will be able to provide clients with ethical and appropriate tree care recommendations. PREREQUISITES: Take 001-157 - Tree Care Practicum 2 Take 001-105 - Dendrology and Silvics

### **001-191**

#### **Leadership & Teamwork in Tree Care**

**Credits: 1.00**

This course exposes apprentices to aspects associated with the processes of effective and impactful training. Apprentices explore a diversity of personality characteristics, learning styles and the process of learning, communication skills, creating effective teams, and approaches to assessing learning. This course includes a capstone project of creating a plan to train an arborist skill to a diversity of arborist trainees.

### **001-198**

#### **Introduction to Soil & Water Resources**

**Credits: 3.00**

Students explore integrated concepts of soil and water resources at the landscape level. The course examines how physical, chemical, and biological interactions relate to watershed processes, and how these interactions respond to land use and management. PREREQUISITES: Complete course 001-184 - Ecological Basis for Natural Res Mgmt TAKE 001-185 - Introduction to Horticulture TAKE 001-186 - People, Resources, and Sustainability

### **001-199**

#### **Intro to Fish, Forestry, & Wildlife Res**

**Credits: 3.00**

Students investigate the framework for fundamental natural resource disciplines by examining the principles and practices of fisheries, forest management, and wildlife management. This course also examines how goods can be produced and services provided while maintaining ecosystem integrity and functions.

### **091-101**

#### **Animal Care and Management**

**Credits: 3.00**

In this course, students explore basic nutrition, housing needs, and behavior of common domestic animals to develop skills that enable them to assess animal condition. Upon completion of this course, students will be able to obtain a thorough history, perform a physical exam, administer medications, collect samples, and use proper restraint techniques. COREQUISITES: Course 806-105 - Principles of Animal Biology Take 091-120 - Animal Behavior;

### **091-102**

#### **Veterinary Business Practices**

**Credits: 3.00**

In this course, students develop practical workplace techniques for veterinary office procedures to develop customer service and veterinary team support skills. Upon completion of this course, students will be able to use veterinary software to manage records and financial applications, maximize client interactions, and participate in day-to-day operations of a veterinary facility. COREQUISITES: Course 091-101 - Animal Care and Management

### **091-103**

#### **Clinical Pathology I for Vet Sciences**

**Credits: 4.00**

In this course, students examine basic laboratory equipment and procedures, as well as features of common veterinary diseases, to acquire skills needed to perform various diagnostic tests. Upon completion of this course, students will be able to collect and process appropriate samples for hematology, blood chemistry, urinalysis, and parasitology, and correlate veterinary clinical pathology findings to clinical signs.

PREREQUISITES: Course 806-105 - Principles of Animal Biology with a minimum grade of B Take 091-101 - Animal Care and Management; Minimum Grade C,TR,PR; Take 091-102 - Veterinary Business Practices; Minimum Grade C,TR,PR;

### **091-104**

#### **Clinical Pathology II for Vet Sciences**

**Credits: 4.00**

In this course, students examine additional laboratory procedures and other veterinary disease processes to establish understanding of appropriate methodology and recognition of accurate results. Upon completion of this course, students will be able to collect and process appropriate samples for mycology, cytology, serology, endocrinology, and coagulation and reproductive evaluations, and correlate veterinary clinical pathology findings to clinical signs. COREQUISITES: Complete courses 091-108 - Veterinary Pharmacology and 806-197 - Microbiology

### **091-105**

#### **Surgical Procedures I for Vet Sciences**

**Credits: 3.00**

In this course, students investigate surgical equipment and procedures to develop skills needed to assist with surgical care of animals. Upon completion of this course, students will be able to identify surgical instruments,



develop sterile technique, maintain and operate surgical equipment, and assist with patient preparation, monitoring, and recovery. COREQUISITES: Course 091-103 - Clinical Pathology I for Vet Sciences

### **091-106**

#### **Surgical Procedures II for Vet Sciences**

**Credits: 3.00**

In this course, students explore the veterinary technician's role in surgery to develop skills needed to manage veterinary patients in the pre-, intra-, and post-operative phases. Upon completion of this course, students will be able to anticipate needs of the surgeon, provide veterinary surgical assistance, manage wounds and incisions, and perform dental prophylaxis in dogs and cats. PREREQUISITES: Complete course 091-108 - Veterinary Pharmacology Take 091-110 - Clinical Skills I for Vet Sciences COREQUISITES: Take 091-113 - Anesthesia for Veterinary Technicians

### **091-107**

#### **Imaging for Veterinary Sciences**

**Credits: 3.00**

In this course, students explore veterinary imaging concepts and apply veterinary imaging techniques to use radiographic equipment and support diagnostic studies. Upon completion of this course, students will be able to properly position veterinary patients, produce diagnostic images, process exposed films, and maintain equipment. COREQUISITES: Course 091-103 - Clinical Pathology I for Vet Sciences

### **091-108**

#### **Veterinary Pharmacology**

**Credits: 3.00**

In this course, students examine drugs, vaccines, and other substances used in veterinary medicine to establish a knowledge base of their therapeutic use, administration, and side effects. Upon completion of this course, students will be able to accurately calculate dosages, prepare dispensed medications, safely administer drugs, and recognize normal and abnormal responses to medications. PREREQUISITES: Course 834-109 - Pre-Algebra with a minimum grade of C or TR or achieve the required placement test score COREQUISITES: Course 091-110 - Clinical Skills I for Vet Sciences

### **091-109**

#### **Lab Animals and Non-Traditional Pets**

**Credits: 2.00**

In this course, students explore characteristics, basic care, illness, and treatment of animals that may be encountered in research settings and/or kept as pets, to develop skills needed to participate in caring for these animals. Upon completion of this course, students will be able to properly restrain and examine mice, rats, rabbits, and birds, collect blood samples from rats and rabbits, and perform a necropsy on a laboratory animal. PREREQUISITES: Take 091-106 - Surgical Procedures II for Vet Sciences Take 091-113 - Anesthesia for Veterinary Technicians

### **091-110**

### **Clinical Skills I for Vet Sciences**

**Credits: 2.00**

In this course, students assimilate skills in a clinical setting to develop proficiency in animal nursing techniques. Upon completion of this course, students will be able to perform routine veterinary clinic procedures such as venipuncture, urine collection, and subcutaneous injection. PREREQUISITES: Complete course 801-136 - English Composition 1

**091-111**

### **Clinical Skills II for Vet Sciences**

**Credits: 2.00**

In this course, students further assimilate skills in a clinical setting to develop proficiency in animal nursing techniques. Upon completion of this course, students will be able to perform more complex clinical procedures such as monitor patients in the anesthetic and recovery periods, properly restrain small animals, and prepare patients for surgery. PREREQUISITES: Course 091-110 - Clinical Skills I for Vet Sciences with a minimum grade of C or TR

**091-112**

### **Clinical Skills III for Veterinary Sci**

**Credits: 3.00**

In this course, students assimilate higher level skills in a clinical setting to develop proficiency in animal nursing techniques for veterinary technicians. Upon completion of this course, students will be able to place and care for intravenous catheters, administer intravenous and intramuscular injections, administer enemas, and apply and remove bandages and splints. PREREQUISITES: Course 091-106 - Surgical Procedures II for Vet Sciences with a minimum grade of C or TR

**091-113**

### **Anesthesia for Veterinary Technicians**

**Credits: 3.00**

In this course, students investigate anesthetic delivery and monitoring equipment, pain management strategies, and appropriate responses to patient compromise to acquire skills needed to coordinate anesthetic events in veterinary patients. Upon completion of this course, students will be able to choose and administer appropriate veterinary anesthetic protocols, monitor and maintain patient status throughout anesthetic events, and maintain equipment and accurate anesthetic records. PREREQUISITES: Complete courses 091-108 - Veterinary Pharmacology Take 091-110 - Clinical Skills I for Vet Sciences COREQUISITES: Course 091-106 - Surgical Procedures II for Vet Sciences

**091-114**

### **Veterinary Tech Clinical Internship**

**Credits: 4.00**

In this course, students hone animal nursing skills in a clinical setting to achieve proficiency needed to function in the role of veterinary technician according to the standards set by CVTEA. Upon completion of this course, students will have the skills and knowledge required of an entry level veterinary technician. PREREQUISITES: Take 091-106 - Surgical Procedures II for Vet Sciences Take 091-113 - Anesthesia for Veterinary Technicians

### **091-120**

#### **Animal Behavior**

**Credits: 1.00**

In this course, students consider normal and abnormal animal behavior, training methods, and the relationship between behavior and physical health to identify problem behaviors and potential solutions. Upon completion of this course, students will be able to recognize some behavior issues in domestic animals and choose appropriate resources for their modification. PREREQUISITES: Student must be accepted to either the 10-091-1 Veterinary Technician or 31-091-3 Veterinary Assistant programs to be eligible to register for this course.

### **091-123**

#### **Veterinary Medical Terminology**

**Credits: 2.00**

In this course, students explore the construction, meaning, and pronunciation of veterinary medical terms to establish understanding and facilitate communication among veterinary team members. Upon completion of this course, students will be able to correctly formulate veterinary medical terms to describe specific concepts. PREREQUISITES: Student must be accepted to either the 10-091-1 Veterinary Technician or the 31-091-3 Veterinary Assistant programs to be eligible to register for this course.

### **091-124**

#### **Large Animal Care & Medicine**

**Credits: 3.00**

In this course, students examine the care, handling, and restraint of large animals commonly encountered in veterinary practice. They explore the basic nutrition, common diseases, housing, and behavior of a variety of large animals, including equine, bovine, porcine, caprine, and ovine. Upon completion of the course, students will be able to assess animal conditions, administer medications, collect samples, and use proper restraint techniques. PREREQUISITES: Take 091-108 - Veterinary Pharmacology Take 091-110 - Clinical Skills I for Vet Sciences

### **091-125**

#### **Common Diseases of Domestic Animals**

**Credits: 2.00**

In this course, students explore basic pathogenesis, diagnosis, and treatment of common domestic animal diseases. They examine symptoms, transmission, prevention, and reporting requirements. Upon completion of the course, students will be able to identify and assess common disease presentations in domestic animals. PREREQUISITES: Take 091-106 - Surgical Procedures II for Vet Sciences Take 091-113 - Anesthesia for Veterinary Technicians Take 091-124 - Large Animal Care & Medicine

## **101-100**

### **Accounting Program Orientation**

**Credits: 1.00**

Students develop skills to enhance their success in the Gateway Technical College accounting program and their career. These skills include self-assessment, time management, study skills, learning styles, and stress management. Students research the accounting field through the Internet, periodicals, and surveys. Students design an accounting academic and career development plan and initiate their ongoing program portfolio.

## **101-103**

### **Internship for Accounting**

**Credits: 2.00**

This course is an on-the-job accounting related work experience. The student will perform 72 hours of accounting-related duties in a business, governmental or not-for-profit setting. Students are responsible for seeking and obtaining the internship workstation position (paid or unpaid). The student will make a summary of work activities. Job supervisor approval and instructor pre-approval are required. COREQUISITES: Complete course 101-121 - Intermediate Accounting

## **101-104**

### **Income Tax Accounting**

**Credits: 4.00**

In this course, learners explore basic federal and state income tax laws for personal income tax returns. Students will prepare manual and electronic Federal and Wisconsin individual tax returns, including supporting schedules. Students will also examine gross income, deductions, credits, capital gains/losses and other important current tax topics. Upon completion of the course, learner will be able to accurately complete personal income tax returns.

## **101-105**

### **Accounting Career Readiness**

**Credits: 2.00**

Accounting Career Readiness will prepare student for entry into the workforce. The student will develop a strategy for seeking, obtaining and retaining employment. The student will identify professional goals and develop a job search or job advancement career plan, resume, application letter, and prepare for interviews. The student will explore local employment resources and career opportunities. COREQUISITES: Complete course 101-121 - Intermediate Accounting Take 101-131 - Management Accounting

## **101-106**

### **Accounting Spreadsheet Applications**

**Credits: 3.00**

In this course, learners develop and edit business-related worksheets and charts. They link worksheets and workbooks to each other to create linking of data between them. Learners examine advanced topics such as

data tables, GoalSeek, Scenarios, and Solver, and they perform 'what if' calculations on data. Upon completion of the course, learners will be able to apply financial functions and macros to worksheet data and to create reports. They will also be prepared to earn the Microsoft Office Specialist: Microsoft Excel Expert certification  
PREREQUISITES: Complete course 103-102 - Microsoft Excel or 103-143 - Computers for Professionals

### **101-107**

#### **Accounting Capstone**

**Credits: 3.00**

The accounting capstone course will guide the student in dealing with ethics, internal control and financial statement analysis in the accounting environment. Students will resolve accounting problems by applying skills and techniques acquired in previous courses. Students will apply business law and ethics to the accounting environment. PREREQUISITES: Take 101-104 - Income Tax Accounting Take 101-119 - Payroll Accounting OR 101-143 Take 101-121 - Intermediate Accounting Take 101-131 - Management Accounting Take 101-154 - Accounting Software Applications OR 101-128 - QuickBooks Online COREQUISITES: Course 101-155 - Financial Analysis/Management

### **101-112**

#### **Accounting for Business**

**Credits: 3.00**

A practical approach to the study of accounting. Basic accounting practices and procedures are explained with particular emphasis on the transactional effect on the income statement and balance sheet. Other areas covered include adjusting and closing entries; accounting for cash, including bank reconciliations and payroll accounting.

### **101-114**

#### **Accounting Principles**

**Credits: 4.00**

Accounting Principles is an introduction to the field of accounting. Fundamental concepts of the accounting process including financial statement preparation, journal entries, posting, adjusting and closing entries. Cash, inventory, receivables, payables, and plant assets including depreciation methods are also covered.

### **101-116**

#### **Corporate Accounting**

**Credits: 3.00**

In this course, learners will focus on accounting for corporations. Students will complete the accounting cycle for a corporation including financial statement preparation. Other topics covered will include accounting for stockholders' equity, correcting entries and error analysis. Students will also investigate appropriate internal controls and identify ethical considerations for processing financial transactions. PREREQUISITES: Complete course 101-114 - Accounting Principles COREQUISITES: Take 103-143 - Computers for Professionals OR 103-102 - Microsoft Excel course 103-143 - Computers for Professionals or 103-102 - Microsoft Excel Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Take 801-136 - English Composition 1

**101-119****Payroll Accounting****Credits: 3.00**

In this course, learners focus on preparing the payroll for a business. Students examine current payroll tax laws and regulations to calculate gross and net pay of employees, determine the employer's liability for payroll taxes, and prepare related journal entries. Students complete a Wisconsin Sales and Use Tax form. Upon completion of the course, students will be able to use computerized accounting software to enter and prepare a company's payroll and related reports.

**101-120****Payroll Accounting II****Credits: 1.00**

In this course students acquire computerized accounting software skills. Topics such as preparing weekly payroll, preparing weekly and quarterly reports, and year-end payroll processing. Upon completion of this course students will be prepared to successfully complete computerized accounting payroll functions.

**101-121****Intermediate Accounting****Credits: 4.00**

In this course, learners apply generally accepted accounting principles (GAAP) to corporations through in-depth analysis of cash, receivables, and inventory. They examine operational asset acquisition, depreciation, and disposal and investigate and apply present value concepts. Upon completion of the course, learners will be able to prepare, analyze, and interpret financial statements using Excel spreadsheet software. PREREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Complete course 801-136 - English Composition 1 Complete course 101-116 - Corporate Accounting;

**101-128****QuickBooks Online****Credits: 3.00**

In this course, learners investigate Intuit's cloud-based software. They set up a business and record customer, vendor, inventory, banking, credit card, general ledger, and payroll transactions. Learners generate financial statements and other financial accounting related reports. Upon completion of the course, learners are able to pursue the Intuit QuickBooks Certified User exam. COREQUISITES: Take 101-114 - Accounting Principles OR 101-112 - Accounting for Business

**101-129****Integrated Accounting and Analytics****Credits: 3.00**

In this course, learners build critical skills in accounting related software programs. The learner examines information, utilizes technology to analyze it from a financial perspective, and will implement downloads and

uploads of large data sets for efficient data analysis. Upon completion of the course, learners will be ready to implement these skills in a workplace environment. PREREQUISITES: Take 101-106 - Accounting Spreadsheet Applications Take 101-116 - Corporate Accounting

### **101-131**

#### **Management Accounting**

**Credits: 4.00**

In this course, learners will focus on the fundamentals of management accounting for a manufacturing company. Students will learn the flow of costs through the accounting system including material, labor and factory overhead. The student will also prepare job order and process costing, cost accumulation, as well as computing and recording variances in a standard cost system. Cost behavior analysis and total quality management will also be covered. Upon completion of the course, students will be able to use quantitative models and costs analysis to make managerial decisions as well as prepare a master budget. PREREQUISITES: Complete course 101-114 - Accounting Principles

### **101-154**

#### **Accounting Software Applications**

**Credits: 2.00**

In this course, learners will be introduced to commercially available accounting software. The students will perform accounting functions related to customers, vendors, inventory, payroll, cash, and other information needed for service and retail businesses. Upon completion of this course, students will generate accurate financial statements and other reports needed for accounting purposes. COREQUISITES: Complete courses 101-112 - Accounting for Business or 101-114 - Accounting Principles

### **101-155**

#### **Financial Analysis/Management**

**Credits: 3.00**

The student will think critically and apply accounting knowledge, principles, and procedures by utilizing financial analysis and financial management techniques in managing the financial aspects of a 'for profit' business. The student will learn to measure risk/reward/return; analyze corporate financial statements, and use time value of money analysis to make long-term financing decisions. The student will analyze corporate solvency and profitability utilizing ratio and trend analysis, apply financial valuation and working capital management techniques, develop cash budgets, and develop pro forma financial statements. A corporate annual report project is required using spreadsheet and word processing software. PREREQUISITES: Complete course 101-106 - Accounting Spreadsheet Applications COREQUISITES: Course 101-121 - Intermediate Accounting

### **102-121**

#### **Credit Management**

**Credits: 3.00**

The learner will examine the world of personal and business credit and explore the implementation and consequences of various credit management policies. The learner will also examine applicable regulations as it pertains to consumer and business credit, as well as relationships with regulatory agencies, stakeholders and the management of the business as it relates to fiduciary responsibilities of the modern manager.

PREREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Take 801-136 - English Composition 1

### **102-122**

#### **Investments**

**Credits: 3.00**

This course considers investments from the perspective of the individual or family. A broad range of topics are discussed pertaining to financial markets and the risk and timing of investments. Analysis factors such as the investment environment, the industry and individual companies are discussed in terms of stock and fixed income investments including bonds and treasury notes. Investment strategies are utilized to develop a diversified portfolio utilizing mutual funds and money market funds.

### **102-137**

#### **Business/Introduction to**

**Credits: 3.00**

General orientation to the business world. Studies include organization and administration, production, labor and personnel, accounting and statistics, distribution, finance, and the relationship of business to society.

### **102-138**

#### **BIZ Internship**

**Credits: 3.00**

Establishes an opportunity for students to apply training and skills learned while participating on a multidisciplinary consulting team. The team will develop a strategic plan for a specified business. Students contract with the business and course instructor(s) to complete a project to the parameters mutually identified by the business and the instructor(s). Evaluation of the student's performance will be a cooperative effort between the members of the BIZ Squad, instructor(s) and the business clients. Participating students can be from many different Career Clusters.

### **102-160**

#### **Business Law**

**Credits: 3.00**

Business Law is a survey course which introduces the student to relevant legal issues that affect business today. Students will learn the fundamentals of law from the U.S. Constitution to the Uniform Commercial Code, from Contract Law to Property Law, and will be able to identify the legal basis of various business activities.

### **102-186**

#### **Business Management Internship**



**Credits: 3.00**

Establishes an opportunity for the student to apply training and skills in a business work environment. The student will spend 144 hours at the worksite(s). The worksite activities will allow the student to interact with a variety of management functions found in small to medium sized businesses. Classroom hours will include preparation of job portfolio materials and interview techniques.

**102-196****Business Decision Management****Credits: 4.00**

This capstone course within the Business Management Program will take the student through the decision process of a business enterprise. This class will pull together the breadth of the learner's business and general educational exposure, experience and education leading into this course and put practical use and application to this knowledge. Application concepts such as capital budgeting techniques, time value of money consideration, conventional and alternative sources of capital, mitigating risk and liability through utilizing various forms of business organizations as well as analysis of financial statements will be covered in detail. The learner will then assemble their own business plan for a new venture, business line expansion, business acquisition or business divestiture. PREREQUISITES: Complete course 104-101 - Marketing Principles and course 101-114 - Accounting Principles OR complete courses 101-112 - Accounting for Business and 103-103 - Microsoft Excel II and 104-101 - Marketing Principles

**103-102****Microsoft Excel****Credits: 1.00**

Introduction to Excel spreadsheet software. Students will learn how to create, store, retrieve and edit a variety of spreadsheets and charts, format worksheets and use formulas. Basic functions will be stressed.

**103-103****Microsoft Excel II****Credits: 1.00**

This course will take students to the next level of competency in Excel. Topics covered include creating workbooks using templates, multiple sheets, 3-D references in formulas and linked workbooks, using database features of Excel, use copy, paste, paste special, and paste link features, and create charts using the Chart Wizard.

**103-105****Microsoft Access****Credits: 1.00**

For beginning-level users of Microsoft Access. Students will discuss basic database terminology and design concepts; create and modify table structures; add, change, and delete records; and create simple selection queries to find, display, and print records.

**103-106****Microsoft Access II****Credits: 1.00**

For intermediate-level users of Microsoft Access. Students will create queries to sort records, compute record and group totals and statistics; and use different methods to create and print data entry forms and reports.

**103-109****Windows Operating Systems and Concepts****Credits: 1.00**

This is the beginning course for students wishing to learn the Windows Operating System. Creating, organizing, and manipulating files and folders in this operating environment will be emphasized. Setting and managing security and privacy settings, and customizing windows, will also be addressed.

**103-110****Microsoft PowerPoint****Credits: 1.00**

This course will take the user of PowerPoint through the basic procedures necessary to create a presentation and related handout materials. The student will learn to use the wizards, toolbars, dialog boxes, menus, and various PowerPoint views to create a presentation.

**103-111****Microsoft PowerPoint II****Credits: 1.00**

This course will take the user of PowerPoint presentation graphics to an advanced level of competency. Inserting graphics, clip art, and organizational charts are emphasized. Adding sound to the presentation is also covered.

**103-112****Microsoft Word****Credits: 1.00**

This course is designed to teach the participant the fundamentals of word processing with Microsoft Word. A variety of business documents will be created to familiarize the learner with various commands and features.

**103-113****Microsoft Word II****Credits: 1.00**

This course will cover multi-page documents, tables, columns, graphics and other desktop publishing features.

**103-142**

## **Basic Computing**

**Credits: 1.00**

This course will give the learner the skills to use electronic mail, Bb, Web Advisor, common beginning features of Microsoft Office, USB usage, printing at Gateway, and saving/opening files.

**103-143**

## **Computers for Professionals**

**Credits: 3.00**

This course introduces students to the use of a PC through hands-on practice. Students explore the fundamentals of using digital technologies to connect, learn, and engage. Students will use the version of Microsoft Office software (MS Word, MS Excel, MS PowerPoint) in use at Gateway Technical College. Upon successful completion of the course, the student will be able to use MS Office applications.

**104-101**

## **Marketing Principles**

**Credits: 3.00**

This is a foundational course that introduces students to the principles of marketing. The course explores the entire marketing mix including: segmentation, targeting, positioning, marketing research, consumer behavior, Product development, pricing policies, distribution and overview of promotion. This course provides a comprehensive overview of the exciting world of marketing.

**104-104**

## **Selling Principles**

**Credits: 3.00**

Principles of Selling provide the student with a basic understanding of the consultative selling process. This course will build a solid understanding of the steps in the professional sales process, examining the characteristics of a successful salesperson, buyer behavior, communication styles, and ethics. Class discussions of actual selling problems will be encouraged in addition to solving case problems, scenario role plays, and student's sales presentations.

**104-105**

## **Promotion Principles I**

**Credits: 3.00**

Students are introduced to the theory and practice of integrated marketing communications. This course is designed to provide an understanding of the promotional elements; advertising, direct marketing, public relations, sales promotion, and digital marketing with emphasis placed on implementation of integrated marketing communications (IMC) in planning marketing and promotional programs.

**104-109**

## **Marketing/Sports and Event Introduction**

**Credits: 3.00**

This course will provide students with an awareness of the careers available within sport/ event marketing industry and enable them to learn the introductory skills necessary to pursue employment in the field. A basic understanding of sports and event marketing followed with exposure to the major components of the industry will be covered. Students will also maintain an awareness of current trends and happenings in the industry.

**104-115****Marketing Capstone/Internship****Credits: 3.00**

This course will allow you to prepare for entering the career of marketing. You will create and update career credentials (resume and portfolio) that will be necessary to compete in an employment market. To further enhance your employability you will be able to demonstrate your marketing skills in an applied internship.

**104-126****Business Marketing I****Credits: 3.00**

Process and systems analysis, inventory planning and control, quality control, marketing cost analysis, marketing plans all related to industrial goods. PREREQUISITES: Course 104-101 - Marketing Principles

**104-133****Social Media Strategies****Credits: 3.00**

In this course, learners explore social media marketing and determine how these media are revolutionizing the marketing landscape today. Learners integrate social media to increase brand awareness, identify key audiences, and generate leads. Upon successful completion of the course, learners will be able to use social media strategies to build meaningful relationships with customers.

**104-137****Digital Marketing****Credits: 3.00**

In this course, learners investigate marketing through digital channels. Using electronic devices, learners investigate mobile applications, email, and web applications. They examine how web design, Search Engine Optimization (SEO), and reputation management are applied to digital promotion. Upon completion of the course, learners will be able to initiate, manage, and evaluate digital marketing strategies for a business.

**104-172****Marketing Management****Credits: 3.00**

This course is an expanded look at issues and trends in the field of marketing. This course provides the student with decision-making activities that are involved with marketing management. Emphasis is placed marketing opportunities and strategies used in the marketing mix. Students will develop a comprehensive marketing plan. PREREQUISITES: Complete course 801-136 - English Composition 1 Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **104-173**

#### **Marketing Research**

**Credits: 3.00**

Businesses today need current, accurate information upon which to base their decisions. We will study the types and sources of data as well as the methods of organizing that data into usable readable information for marketing decisions. We will apply our learning by developing a marketing research project.

### **104-194**

#### **International Marketing**

**Credits: 3.00**

The course is a study in the marketing of goods and services at the Global level. The international uncontrollable variables of marketing are analyzed along with emphasis on market development, marketing research, product planning, international distribution, promotion, and pricing. Students explore how marketing strategies and tactics must be managed and adapted for success in different cultural, economic, geographic and political environments around the world.

### **105-106**

#### **Business Communications**

**Credits: 3.00**

In this course, students apply the skills and tools necessary to effectively compose business communication in a written format. Each student demonstrates the application of analyzing the communication situation, including: planning and preparing the message; developing persuasive, informational, and negative messages, sales letters, media releases, proposals and promotional materials; demonstrating skills in basic writing mechanics and English grammar; and effective electronic communication. PREREQUISITES: Course 801-136 - English Composition 1

### **106-006**

#### **Business Communication Skills**

**Credits: 3.00**

Effective written business communication principles are discussed and applied to the composition of routine business correspondence and reports. Oral communication presentations will be used to enhance the student's understanding of effective communication principles. Proper communication techniques for telephone use will be demonstrated. PREREQUISITES: Take 106-030 - Word Processing for Business with a minimum grade of C or TR; Take 106-137 - Keyboarding Applications; Minimum Grade C,TR; Complete course 801-136 - English Composition 1

**106-016****Principles of Customer Service****Credits: 3.00**

Provides a solid foundation in the areas of customer service and service excellence and provides techniques to retain customers and maintain loyalty in both a face-to-face environment and in remote settings via telephone and the Internet.

**106-017****Customer Service Capstone****Credits: 1.00**

Students will job shadow at a customer service call center.

**106-018****Customer Service Management****Credits: 3.00**

Includes instruction in customer behavior; using customer service databases; Internet searching and retrieval; and telephone, e-mailing, and communications skills. PREREQUISITES: Course 106-016 - Principles of Customer Service

**106-019****Administrative Service Internship 1****Credits: 1.00**

Students will be required to complete 36 hours of an on the job work experience. Students will also spend time in the classroom enhancing their employability skills. PREREQUISITES: Complete Course 106-137 - Keyboarding Applications COREQUISITES: Take 106-024 - Professionalism in Business Take 801-136 - English Composition 1 Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

**106-020****Administrative Service Internship 2****Credits: 1.00**

Students will be required to complete 36 hours of an on the job work experience. Students will also spend time in the classroom enhancing their employability skills. PREREQUISITES: Complete course 106-137 - Keyboarding Applications Take 106-024 - Professionalism in Business

**106-021****Business Office Fundamentals****Credits: 3.00**

This course presents a general orientation to the business world geared toward the office worker. Studies include exploring global and domestic business offices, investigating business functions and learning how departments fit together for one common mission of the organization.

### **106-022**

#### **Information Management for Business**

**Credits: 3.00**

This course will prepare students to manage records in business in paper and electronic form. Topics covered will include basic database terminology and design concepts, creating and modifying table structures; adding, changing, and deleting records; and creating queries to find, display, and print records. The ARMA rules for records management will also be covered. PREREQUISITES: Complete course 106-137 - Keyboarding Applications with a minimum grade of C or TR;

### **106-023**

#### **Office Management**

**Credits: 3.00**

This course will orient the learner to the function of management in an office. Topics related to managing office operations and procedures, budgeting, interviewing others, assigning and monitoring clerical functions, training and business ethics will be included.

### **106-024**

#### **Professionalism in Business**

**Credits: 3.00**

This course prepares the learner for job search as they near graduation. Topics covered will include; resume and portfolio preparation, interviewing skills, and dressing for success. An emphasis will also be placed on the soft skills necessary in today's business world.

### **106-025**

#### **Spreadsheets in Business**

**Credits: 3.00**

This course prepares the learner to utilize a variety of spreadsheet software in business. While an emphasis will be placed on Microsoft Excel, other current spreadsheet software will be covered. PREREQUISITES: Complete course 106-137 - Keyboarding Applications with a minimum grade C or TR;

### **106-026**

#### **Business Publication**

**Credits: 3.00**

In the course, students will create print-ready newsletters, brochures, flyers, forms business cards, and other business publications using current publishing software including MS Publisher, MS Word, and Adobe. PREREQUISITES: Complete course 106-137 - Keyboarding Applications with a minimum grade C or TR;

## **106-027**

### **Integrated Business Projects**

**Credits: 3.00**

In this course students complete scenario-based activities using business productivity software skills. Students will apply software and document processing skills to create solutions to common business information needs. Using a case study approach, students will develop communication, Internet research, teamwork, critical-thinking and problem-solving skills. Upon completion of this course, students will use MS Office Suite to integrate and present data with skill. PREREQUISITES: Complete course 106-025 - Spreadsheets in Business with a minimum grade C or TR; Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

## **106-028**

### **Office Technologies Essentials**

**Credits: 3.00**

This course is an introduction to the computer system unit, the Internet and social Web, hardware and software, system software, Google applications and emerging office technology.

## **106-029**

### **Presentations for Business**

**Credits: 3.00**

This course prepares the learner to utilize a variety of presentation software in business. While an emphasis will be placed on MS PowerPOint, other current presentation software will be addressed. PREREQUISITES: Complete course 106-137 - Keyboarding Applications with a minimum grade C or TR;

## **106-030**

### **Word Processing for Business**

**Credits: 3.00**

This course covers an intermediate level of word processing skills. Proofreading and language skills will be developed through the production of business documents including business letters and reports. Advanced formatting features will be used in MS Word. PREREQUISITES: Complete course 106-137 - Keyboarding Applications with a minimum grade C or TR;

## **106-126**

### **Keyboarding**

**Credits: 1.00**

Learner will develop touch method typing skills using a computer keyboard.

## **106-137**

### **Keyboarding Applications**



**Credits: 3.00**

Learner will develop keyboarding skills and basic document formatting skills using word processing software.

**106-190****Administrative Office Procedures****Credits: 3.00**

This course will develop professional skills and attitudes needed in today's global business environment. Topics include making ethical decisions, working independently and as a team member, and managing time.

Telecommunications, mail processing, travel arrangements and conferences, public relations, and ergonomics will be included. PREREQUISITES: Complete course 106-025 - Spreadsheets in Business

**107-003****Network+ Exam Prep****Credits: 1.00**

This course will prepare an individual for the Network+ certification exam. It is intended for individuals who have completed the CCNA classes (107-135 Data Communications, 107-162 Routing Principles, 107-167 Switching Basics, and 107-168 WAN Technologies) or have a background in network installation, troubleshooting, and maintenance.

**107-011****IT in Business****Credits: 3.00**

This course is a basic introduction to Information Technology (IT) and how it impacts our lives. It will focus on how IT professionals implement industry tools and applications throughout businesses. Students will learn proper terminology as well as industry trends and concepts.

**107-013****IT Job Search Skills****Credits: 1.00**

Learn how to start your IT job search! Students will develop a job search plan and prepare a professional job search portfolio. Different job search tools will be utilized in order to assist the student in finding the best job for them. Current job searching trends and interviewing techniques will be discussed and applied.

PREREQUISITES: Take 801-136 - English Composition 1; Minimum Grade C

**107-014****A+ 801 Certification Review****Credits: 1.00**

This course will prepare an individual for the A+ 801 Exam. This is the first of two exams that must be passed for an individual to achieve the A+ certification. This class is intended for individuals who have completed

coursework in basic computer support or have a background in PC troubleshooting. The focus of this class is installation and support of personal computer hardware, laptops, printers, networks, security, safety and environmental issues, and communication and professionalism. This class will consist of lectures on the essential material for this exam and will not provide class time to perform labs. All students will be required to purchase a book and certification test bank.

### **107-015**

#### **A+ 802 Certification Review**

**Credits: 1.00**

This course will prepare an individual for the A+ 802 Certification Exam. This is the second of two exams for an individual to achieve A+ Certification. This class is intended for individuals who have passed the A+ 801 Exam and have completed coursework in computer support or have a background in PC troubleshooting. The focus of this class is installation and support of operating systems, mobile devices, security/forensics, and properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. This class will consist of lectures on the essential material for this exam and will not provide class time to perform labs. All students will be required to purchase a book and certification test bank.

### **107-016**

#### **A+ Certification Review Part 1**

**Credits: 1.00**

This course will review the material covered in the first of two certification exams that must be passed in order for an individual to achieve their CompTIA A+ certification. The course will follow the current exam series (for exam specifics please visit the [CompTIA.org](http://CompTIA.org) website). This class is intended for individuals who have completed coursework in basic computer support (such as the IT Essentials course) or have a background in PC troubleshooting. The focus of this course is to review the installation and support of personal computer hardware and peripherals, mobile device hardware, and networking devices. It also covers troubleshooting hardware and network connectivity issues. This class will consist of lectures on the essential material covered in this exam and is meant as a review so it does not include hands-on labs. All students will be required to purchase a book and certification study test bank tool.

### **107-017**

#### **A+ Certification Review Part 2**

**Credits: 1.00**

This course will review the material covered in the second of two certification exams that must be passed in order for an individual to achieve their CompTIA A+ certification. The course will follow the current exam series (for exam specifics please visit the [CompTIA.org](http://CompTIA.org) website). This class is intended for individuals who have completed coursework in basic computer support (such as the IT Essentials course) or have a background in PC troubleshooting. The focus of this course is to review the installation and configuration of desktop and mobile device operating systems. It also covers cloud computing fundamentals, computer and network security and operational procedures. This class will consist of lectures on the essential material covered in this exam and is meant as a review so it does not include hands-on labs. All students will be required to purchase a book and certification study test bank tool.

## **107-177**

### **IT Project Management**

**Credits: 4.00**

Focus will be on project management from the information systems professional perspective while keeping a customer-based orientation and business focus. Cooperative team-based business strategies will be stressed. Students will develop written and oral communications, as necessary, to complete the steps within the project management process. Project management software will be utilized, within all phases of the systems development as the students progress through a team-based project simulation. PREREQUISITES: Courses 154-113 - IT Apps Server & Support minimum grade C or TR; Take 801-197 - Technical Reporting

## **107-193**

### **IT Essentials**

**Credits: 3.00**

IT Essentials focuses on the relationship between hardware and system software. The course topics include PCs, peripherals, networking, security, troubleshooting, and communication skills. IT Essentials is an introductory course that presents a foundation toward the pursuit of CompTIA A+ certification.

## **109-101**

### **Hospitality/Principles of**

**Credits: 3.00**

This introductory course tours the related hospitality fields of hotels, tourism, foodservice, and attractions with an emphasis on customer service. The course will cover the typical types of establishments found in the US and Wisconsin. Students will be introduced to common job titles, organizational structures, career opportunities, and trends in this field.

## **109-106**

### **Advanced Tourism Management**

**Credits: 3.00**

This course covers practical marketing and management for temporary events such as fairs, pop-ups, and tourism events. The goal is to create vital internet marketing strategies using emerging technologies to entice customers. Students will identify the key customer service needs for this type of tourism event.

PREREQUISITES: Complete Course 109-112 - Tourism, Introduction To Take 109-171 - Hospitality Sales and Marketing

## **109-108**

### **Event Management**

**Credits: 3.00**

This course explores the details of event management including identifying stakeholders, planning event, development of event needs, management of participants, and execution of events.

**109-110****Rooms Division Management****Credits: 3.00**

This class will highlight the operations of the Rooms Division of a hotel including Reservations, Front Desk, Night Audit, Bell Staff, Housekeeping, and Laundry. The goal is understand the relationship between the departments and how they support the Guest Cycle.

**109-112****Tourism, Introduction Tol****Credits: 3.00**

This course covers the tourism industry including why people travel, the social and cultural aspects to tourism, and governmental development of tourism. Students will explore the interrelations between tourism, hotels, food, and attractions in the Wisconsin region. Emphasis will be on customer service needs within this field.

PREREQUISITES: Take 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning

**109-113****Tourism Attraction and Management****Credits: 3.00**

This course is an overview of the Tourism Attractions in the local area. Students will identify the establishments, look at the specific unique customer service and management aspects of this type of establishment.

**109-114****Managing Services/Hospitality Industry****Credits: 3.00**

Students will master the key supervision skills needed in the hospitality fields. Topics will include planning, organizing, staffing, controlling, leadership, team management, staffing, and training.

**109-121****Hotel Operations, Intro to****Credits: 3.00**

This course covers the historical development of hotels with a discussion of the modern day types of properties. Students will learn the guest cycle with a focus on customer service and will explore the interrelations of the different departments in a hotel or resort. PREREQUISITES: Take 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning

**109-122****Service in the Hospitality Ind, Intro to****Credits: 3.00**

Discusses customer service in the hospitality field, how it is the backbone of this industry. Students will learn how to identify good and not so good service as well as how correct service evolved and the reasons for its existence. Students will learn how to deal with upset customers and gain basic dispute management skills.

### **109-123**

#### **Bar and Beverage Management**

**Credits: 3.00**

This course deals with the practical operational issues of beverage operations. With a customer service focus, this class will focus on marketing, menu development, cost control, pricing, mixology, customer service, legal issues, training, as it relates to bars and beverage service. Students will have an overview of products available for sale as well as a discussion of food and alcohol pairing principles.

### **109-124**

#### **Hotel Facilities Management**

**Credits: 3.00**

This course focuses on the management of the property including design and renovation considerations. The class will also identify security and risk management issues especially as related to customer service standards. This class will also discuss the facility operations of alternative hotels including historic, B&B, spas, resorts, etc. PREREQUISITES: Course 109-121 - Hotel Operations, Intro to

### **109-125**

#### **Hospitality Managerial Accounting**

**Credits: 3.00**

This course explains financial statements as they apply to the hospitality industry. Students will learn how to interpret, analyze, and use these statements. Ratios and comparison techniques will be explored. Students will create budgets using generally accepted principles.

### **109-126**

#### **Advanced Customer Service Mgmt**

**Credits: 3.00**

This class focuses on the systematic structures needed to provide exceptional customer service including hiring, training, work organization, quality management and quality assurances. Students will explore how change affects customer perceptions and expectations. PREREQUISITES: Complete course 109-122 - Service in the Hospitality Ind, Intro to with a minimum grade of C,TR;

### **109-127**

#### **Hotel Strategic Management**

**Credits: 3.00**

This capstone course focuses on the strategic management of a hotel property. Student will master cost controls, yield management, and revenue strategies as it relates to lodging properties. Students will be able to articulate how their decisions affect the marketing, financial, and customer service standards of a hotel.

### **109-128**

#### **Hospitality Front Line Internship**

**Credits: 2.00**

This hands on course focuses on work experience at the entry level in the Hospitality Industry.

PREREQUISITES: Take 109-101 - Hospitality/Principles of

### **109-129**

#### **Hospitality Supervisory Internship**

**Credits: 2.00**

This hands on course focuses on work experience at the supervisory level in the Hospitality Industry.

PREREQUISITES: Complete course 109-101 - Hospitality/Principles of COREQUISITES: Complete course 109-128 - Hospitality Front Line Internship

### **109-131**

#### **Hospitality Capstone**

**Credits: 2.00**

This course readies the student for employment in the hospitality field. PREREQUISITES: Complete course 109-122 - Service in the Hospitality Ind, Intro to Take 109-128 - Hospitality Front Line Internship COREQUISITES: Complete course 109-129 - Hospitality Supervisory Internship

### **109-132**

#### **Food Operations in Hospitality**

**Credits: 3.00**

In this course, students explore the fundamentals of managing food operations in a lodging or tourism setting. They examine front-of-the-house foodservice operations and beverage service which includes wine, spirits, beer, mixology, and non-alcoholic beverages. Students analyze the sequence of service, job descriptions, and menu applications. They identify bar and kitchen equipment and how to create menus to match customer needs and available resources. Upon completion of the course, students will be able to oversee the food operations in a hotel or tourism attraction.

### **109-171**

#### **Hospitality Sales and Marketing**

**Credits: 3.00**

Study marketing as it applies to hospitality industries. Develop theoretical and practical experience to create marketing plans for a variety of customers and establishments. Topics include the fundamentals of marketing

principles, development of the marketing plan, sales promotion, marketing tactics and promotions, and special problems relating to this industry.

### **110-101**

#### **Intro to the Paralegal Profession**

**Credits: 3.00**

In this course, students analyze the legal profession. They examine the American legal system and related ethics and terminology. Students investigate legal research and selected areas of substantive law. Upon completion of the class, students will have a documented plan for their future enrollment in the paralegal program and an expectation of their required participation in the program of study.

### **110-102**

#### **Civil Procedure**

**Credits: 3.00**

In this course, students explore the initial stages of civil litigation. They examine initial client contact, investigation, pleadings, and motions. Upon completion of the course, students will be able to provide clients with guidance in the area of civil litigation.

### **110-103**

#### **Family Law**

**Credits: 3.00**

In this course, students examine basic legal concepts related to family domestic relations law. They analyze contracts affecting marriage such as annulment, divorce, legal separation, and legal actions affecting the family including paternity, adoption, and reproduction. Upon completion of the course, students will be able to draft pleadings and documents relevant to family law practice.

### **110-104**

#### **Law Office Management and Technology**

**Credits: 3.00**

In this course, students examine the legal aspects of the formation, operation, and dissolution of basic types of business organizations. They explore the use of technology to access, retrieve and manage electronically stored information as well as its ability to enhance collaboration. Upon completion of the course, students will be able to explain the substance and procedure involving business organizations and how the use of technology increases the efficiency of the legal process.

### **110-105**

#### **Legal Research**

**Credits: 3.00**

In this course, students engage in legal research using traditional and electronic methods. They locate and cite relevant case law, statutory law, and administrative law as well as secondary sources. Upon completion of the course, students will be able to apply legal research and citation skills effectively.

### **110-106**

#### **Civil Litigation Procedures**

**Credits: 3.00**

In this course, students build on basic civil litigation knowledge to analyze civil litigation procedures. They explore discovery procedures, trial processes, and appellate proceedings. Upon completion of the course, students will be able to assist with civil litigation case planning, development, and management.

PREREQUISITES: Take 110-102 - Civil Procedure

### **110-107**

#### **Criminal Law and Procedure**

**Credits: 3.00**

In this course, students analyze the theory and practical application of criminal law and procedure. They examine the basic classification of crimes and the processes by which Constitutional rights of defendants are upheld. Upon completion of the course, students will be able to assist attorneys practicing in the field of criminal law either as prosecutors or defense attorneys.

### **110-108**

#### **Legal Writing**

**Credits: 3.00**

In this course, students analyze the fundamentals of effective legal writing. They draft a variety of documents including legal memoranda, memoranda, case briefs, pleadings, motions, and legal correspondence. Upon completion of the class, students will be able to apply practical skills required for legal writing and analysis.

PREREQUISITES: Take 110-105 - Legal Research Take 804-135 - Quantitative Reasoning Take 801-136 - English Composition 1

### **110-109**

#### **Estate Planning and Probate**

**Credits: 3.00**

In this course, students examine the estate planning process. They analyze the path of the probate process with a focus on Wisconsin laws. Students explore wills, trusts, estates, power of attorneys, and advanced directives. They investigate probate forms and procedures used in probate administration, and they examine law regulating the inheritance of property through intestacy. Upon completion of the course, students will be able to explain the probate process with a focus on Wisconsin laws.

### **110-110**

#### **Administrative Law and Public Benefits**

**Credits: 3.00**



In this course, students explore the process by which government agencies make and administer rules and regulations. They analyze how agencies adjudicate cases and controversies involving those rules. Students examine available healthcare and public benefits. Upon completion, students will be able to analyze administrative code provisions, benefit manuals, and federal and state statutes and prepare an argument and exhibits for administrative law hearing.

### **110-111**

#### **Guardianships and Protective Services**

**Credits: 3.00**

In this course, students examine the process of filing a guardianship action and the related protective services system. They analyze the process of evaluating client capacity and the statutory requirements and procedures for filing an action. Students examine legal ethics and alternatives to guardianship. Upon completion of the course, students will be able to draft pleadings, court orders, and letters to clients related to guardianship and protective services.

### **110-112**

#### **Immigration/International Law**

**Credits: 3.00**

In this course, students analyze international law and the immigration court system. They examine international courts and treaties and characterize individual human rights recognized internationally. Upon completion of the course, students will be able to explain the process for acquiring US citizenship and the process for obtaining work and student visas.

### **110-113**

#### **Employment Law**

**Credits: 3.00**

In this course, students analyze federal and state laws governing employment relationships. They examine job discrimination, sexual harassment, work place privacy, labor relations, and human resource management. Upon completion of the course, students will be able to apply the appropriate federal and state laws to employment situations.

### **110-114**

#### **Bankruptcy Law**

**Credits: 3.00**

In this course, students explore pre- and post-judgment collection rights. They examine creditor protections as well as state and federal consumer protection laws and federal bankruptcy laws. Upon completion of the course, students will be able to assist lawyers and their clients through the bankruptcy process.

### **110-115**

#### **Ethics in the Legal Profession**

**Credits: 3.00**

In this course, students explore legal ethics and the obligations of paralegals. They examine the regulation of attorney and paralegal conduct, confidentiality, unauthorized practice of law, conflicts of interest, client management, disciplinary procedures, and malpractice. Students analyze strategies for identifying and resolving ethical problems. Upon completion of the course, students will be able to explain professional responsibility and apply ethical rules in making decisions.

### **110-116**

#### **Trial Prep/E-Discovery & Legal Tools**

**Credits: 3.00**

In this course, students examine the process of electronic discovery (e-discovery) as a digital investigation procedure to facilitate search for key information. They explore the process of recovering, searching, organizing, and analyzing data stored on computers and other digital storage devices. Upon completion of the course, students will be able to apply electronic discovery tools to support case management and trial preparation.

### **110-117**

#### **Paralegal Career Readiness**

**Credits: 2.00**

In this course, students enhance their readiness for a paralegal career by preparing for a law-related position. They identify the needs of potential employers and practice interviewing skills. Students engage in simulated scenarios to enhance their practical paralegal skills, and they develop a portfolio suitable for use in their employment search. Upon completion of the course, students will be ready to successfully engage in the employment search process. PREREQUISITES: Take 110-108 - Legal Writing

### **110-118**

#### **Paralegal Internship**

**Credits: 2.00**

In this course, students prepare for a paralegal career by obtaining a law-related position. In their work under the supervision of a qualified professional, students cultivate practical professional skills required to support law firms, government agencies, private businesses, and nonprofit organizations with their legal needs. Upon completion of the course, students will be able to explain and demonstrate the competencies that help individuals succeed in supporting legal roles. PREREQUISITES: Take 110-108 - Legal Writing

### **114-101**

#### **Personal Financial Planning**

**Credits: 3.00**

This course considers finance from the perspective of the individual or family unit. A broad range of topics in personal finance are discussed including: planning and managing your personal finances, making purchasing and credit decisions, insuring assets, investing and controlling your financial future.

### **116-101**

## **Compensation and Benefits**

### **Credits: 3.00**

In this course, students analyze compensation and benefits programs as they fit into a workforce staffing plan. They examine program design, implementation, management, and measurement. Students relate the alignment of compensation and benefits programs to organizations' values through analysis of a total rewards package. Upon completion of the course, students will be able to explain how compensation and benefits programs influence employee recruitment, retention, motivation, and performance. PREREQUISITES: Take 196-193 - Human Resource Management; Minimum Grade of C; Take 196-134 - Legal Issues for Supervisors; Minimum Grade of C;

### **116-102**

## **Training and Development**

### **Credits: 3.00**

In this course, students examine how to foster a learning culture. They explore how to identify training needs, match them to resources and providers, and measure results. Students analyze effective strategies for a variety of training techniques and environments. They align employee development initiatives to the achievement of organizational objectives. Students develop and present training projects based on adult learning theory and instructional design techniques. Upon completion of the course, students will be able to explain how to develop a culture of continuous learning that encourages employees to flourish and the organization to thrive. PREREQUISITES: Take 196-193 - Human Resource Management; Minimum Grade of C; Take 196-134 - Legal Issues for Supervisors; Minimum Grade of C;

### **116-103**

## **Employee Relations and Engagement**

### **Credits: 3.00**

In this course, students explore employee relations and engagement concepts. They identify regulations and policies that govern and practices that guide workplace rules and conduct. Students examine tools of employee engagement and processes to measure and evaluate levels of engagement. They relate employee attitudes and engagement to the quality of the organizational culture. Upon completion of the course, students will be able to explain the engagement practices that successfully connect an organization and its employees. PREREQUISITES: Take 196-193 - Human Resource Management; Minimum Grade of C; Take 196-134 - Legal Issues for Supervisors; Minimum Grade of C;

### **116-104**

## **Recruitment and Selection**

### **Credits: 3.00**

In this course, students analyze the recruitment and selection process. They identify the recruitment model and examine the process to measure and evaluate recruitment results. Students relate successful employee recruitment to the success of an organization and explain how recruitment and selection objectives should be aligned with the organization's strategic objectives. They evaluate applications and resumes and analyze interview techniques appropriate for the work required. Upon completion of the course, students will be able

to explain effective recruitment and selection strategies as well as administer employee retention programs.

PREREQUISITES: Take 196-193 - Human Resource Management; Minimum Grade of C; Take 196-134 - Legal Issues for Supervisors; Minimum Grade of C;

### **116-105**

#### **Human Resources Capstone**

**Credits: 3.00**

In this course, students analyze a case study to examine the complex and varied topics associated with human resource management. They synthesize knowledge and skill acquired through their participation in the program and demonstrate their cumulative knowledge. Through this integrative experience, students will be prepared to apply human resource management skills in the workplace.

### **116-106**

#### **Human Resources Internship**

**Credits: 3.00**

In this course, students apply knowledge and skill acquired through their participation in the program to a practical occupational experience. They engage in work related to key areas of human resource management. Students provide weekly reporting of their demonstration of tasks aligned with human resource management objectives. Upon completion of the internship, students will have authentic work experience they can apply to chosen human resource management-related roles.

### **138-118**

#### **International Bizsquad**

**Credits: 3.00**

In this course International Bizsquad students prepare to engage in multidisciplinary global projects. They examine best practices to communicate for positive outcomes. Students apply effective project management skills and manage scope to support successful project implementation. Upon successful completion of the course, students will have acquired hands-on, international experience in project management and implementation.

### **140-105**

#### **International Field Study**

**Credits: 3.00**

Provides students with first-hand knowledge of working and studying in their program related area in the international environment. While abroad, students will gain cultural knowledge and understanding of values and behaviors in a different society and workplace. Upon completion of the course, students will be able to incorporate a global perspective into a comparison of professional and social practices in the US and the country visited. They will share their experiences and findings in a formal presentation.

### **140-106**

#### **Serving to Learn Globally**

**Credits: 2.00**

Through immersion in a global community, students will collaborate to identify a need, plan a service, perform the service and/or evaluate the result. They will apply principles of professionalism, team work, and critical thinking, as well as their chosen career's technical knowledge, attitude and skill. Through reflection and dissemination, students will integrate an increased sensitivity to the diversity of the community, global connectivity, civic engagement and their own professional career path.

**140-107****Cultural Elements of Study Abroad****Credits: 1.00**

In this course, students engage in global learning opportunities by working and studying abroad. Students develop cross-cultural skills through their observation of, communication with, and participation in the local culture visited. Upon completion of the course, students relate their global perspective to their program of study, and they present their experience abroad.

**140-109****International Field Study****Credits: 3.00**

Provides students with first-hand knowledge of working and studying in their program related area in the international environment. While abroad, students will gain cultural knowledge and understanding of values and behaviors in a different society and workplace. Upon completion of the course, students will be able to incorporate a global perspective into a comparison of professional and social practices in the US and the country visited. They will share their experiences and findings in a formal presentation.

**141-102****French for International Travel****Credits: 1.00**

Students will learn the fundamentals of the French language spoken in the country they are visiting and become familiar with modes of transportation, currency, and food in preparation for their study abroad experience.

**141-103****German for International Travel****Credits: 1.00**

Students will learn the fundamentals of the German language spoken in the country they are visiting and become familiar with modes of transportation, currency, and food in preparation for their study abroad experience.

**141-106****Culture and Language of Italy**

**Credits: 3.00**

This course is designed as an introduction to the Italian language in which a formal presentation of the proper language and correct grammatical structures will be presented through listening, reading, writing, and speaking in Italian. The course includes cultural studies of Italy including business, art, government, education, geography, music and travel. In addition, learners will examine cultural behaviors essential to engage successfully in Italian business and social settings.

**141-107****Cultural Elements of Study Abroad****Credits: 1.00**

Students will become familiar with geography, climate, demographics, conventions, customs, beliefs and safe travel practices of the country they are visiting in preparation for their study abroad experience. While abroad, students will gain cultural knowledge and understanding of values and behaviors in a different society and workplace.

**141-109****International Field Study****Credits: 3.00**

Provides students with first-hand knowledge of working and studying in their program related area in the international environment. While abroad, students will gain cultural knowledge and understanding of values and behaviors in a different society and workplace. Upon completion of the course, students will be able to incorporate a global perspective into a comparison of professional and social practices in the US and the country visited. They will share their experiences and findings in a formal presentation.

**141-110****Culture and Language of Peru****Credits: 3.00**

This course is designed as an introduction to the culture of Peru and the Spanish language in which the proper language and correct grammatical structures will be presented through listening, reading, writing, and speaking in Spanish. The course includes cultural studies of Peru including history, government, economy, education, geography, art, music and demographics. In addition, learning will examine cultural behaviors essential to engage successfully in community service work in Peru and communicate in social settings.

**141-111****Culture and Language of Iceland****Credits: 3.00**

This course is designed as an introduction to the culture of Iceland, the Icelandic language and Icelandic and Norse literature. Icelandic literature will be presented through a series of readings and instruction provided by the University of Iceland. The course includes cultural studies of Iceland including history, government, economy, education, geography, geology, sustainable energy, art, music and demographics.

## **145-106**

### **Entrepreneurship 3 - Operations MGMT**

**Credits: 3.00**

This course covers the aspect of effectively managing the resources of a small business. Covering the topics of managing finances, staff, marketing and technology. The student will work on projects that will be focused on their specific business needs and will assist the student in planning how to handle their day to day operations.

## **145-119**

### **Entrepreneurship**

**Credits: 3.00**

Can your idea be turned into a profitable business? Will power and hard work are not enough to guarantee success. You must first determine the feasibility of your idea. Before you quit your job, invest your life savings or dedicate time to complete a business plan, wouldn't it be nice to know whether business ownership is right for you? In this class, you'll examine your business idea from every angle. Not only will it help you make a decision about starting your business, you will discover whether the life of an entrepreneur is right for you.

## **145-120**

### **Business Planning and Development**

**Credits: 3.00**

Regardless if you need financing or not, a business plan is essential for the entrepreneur to be successful. This course will take a comprehensive look at your prospective business. Looking at key components that will include evaluating and developing your product/service offering, marketing plan, financial plan and growth plan. At the end of class you will develop a business plan for your proposed business. PREREQUISITES: Course 145-119 - Entrepreneurship minimum grade C or TR;

## **145-121**

### **Small Business Ownership**

**Credits: 3.00**

This course goes beyond the business plan and students will have the opportunity to start their own business. Students will combine classroom experience with the management of their business. To make this happen students will be assigned a mentor that will help them through the process. The goal of the course is to assist students in implementing their businesses in an ethical and socially responsible manner that ultimately enhances the local business community. COREQUISITES: Course 145-120 - Business Planning and Development

## **145-122**

### **Financial Management for Entrepreneurs**

**Credits: 3.00**

In this course, learners explore the role financial reporting has on the decisionmaking process within an organization. Learners explain the structure and content of financial statements, how to analyze financial statements, and explore the role these statements have on an organization. Upon completion of the course,

learners will develop financial projections for their proposed business/concept. PREREQUISITES: TAKE 101-154 - Accounting Software Applications OR 101-128 - QuickBooks Online; MINIMUM GRADE C, TR; Take 804-135 - Quantitative Reasoning Take 801-136 - English Composition 1

### **145-123**

#### **Intrapreneurial Mindset**

**Credits: 3.00**

In this course, learners evaluate the underlying beliefs and assumptions that drive the behavior enabling entrepreneurs to succeed. Learners apply these techniques in three settings, entrepreneurial, enterprise, and personal. This gives the learner a formula to apply these foundations to enact change in all aspects of their life. Upon the completion of the course, learners will take that knowledge and apply it to the creation, implementation, and evaluation of a self-directed project with a topic of their choosing.

### **150-106**

#### **Intrusion Detection Systems**

**Credits: 3.00**

Learn the basic concepts and techniques of Intrusion Detection Systems (IDS) and other network related defense strategies. Students will setup, configure, and monitor an Intrusion Detection System utilizing different leading edge products. Current network defense strategies will be discussed and popular tools will be used. Students will be able to apply the correct IDS and defense strategies for different business? goals.

### **150-113**

#### **Network Administration - Linux/Unix**

**Credits: 4.00**

Advanced administration concepts and applications will be discussed and implemented. Topics include: implementing an enterprise network that incorporates a host system, multimedia, multiple platforms, UNIX, and other advanced network administration tasks. PREREQUISITES: Course 150-109

### **150-114**

#### **Network Concepts - CCNA1**

**Credits: 3.00**

This course will provide you with more in depth networking concepts. Topics will include the Internet, OSI model, wireless, security, logical and physical topologies, instant messaging, basic router setup and switch configuration, network connectivity, and hardware and software configurations. You will also learn how to create local area networks and wide area networks. Individuals will learn real-world skills related to employment. COREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **150-115**

#### **IoT: Securing Devices**

**Credits: 3.00**



In this course, students continue working with IoT devices. Students connect devices and analyze firmware and software for weaknesses. Students research and perform upgrades to IoT devices. After upgrading the IoT devices, the students secure these devices by applying industry best practices. This may include changing firewall settings or remote access settings. Upon completion of this course, students can recognize, update and secure IoT devices. PREREQUISITES: Course 150-182 - IoT: Connecting Devices Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **150-119**

#### **Network Admin Microsoft Server 2019**

**Credits: 3.00**

In this Microsoft Official Academic Course (MOAC) students examine installation, configuration, and storage options in the Windows Server 2019 environment. Students explore processes to maintain, secure, and monitor server performance. Upon completion of the course, students will be prepared to take the Microsoft Certified Solutions Associate (MCSA) Windows Server 2019 exam. PREREQUISITES: Take 150-114 - Network Concepts - CCNA1 with minimum grade of C or TR; COREQUISITES: Take 801-136 - English Composition 1

### **150-120**

#### **Network Admin Microsoft Server 2 2019**

**Credits: 3.00**

In this Microsoft Official Academic Course (MOAC) students examine networking options in the Windows Server 2019 environment. Students explore DNS, DHCP, IP address management, connectivity solutions, and advanced network infrastructure. Upon completion of the course, students will be prepared to take the Microsoft Certified Solutions Associate (MCSA) Windows Server 2019 exam. PREREQUISITES: Complete course 150-109 or 150-119 - Network Admin Microsoft Server 2019 with minimum grade of C or TR; COREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **150-124**

#### **Routing CCNA 2**

**Credits: 3.00**

In this course, students investigate switching, routing, and wireless essentials. They configure, troubleshoot, and secure routers and switches in a small network. They explore wireless local area networks (WLANs), dynamic addressing, switch security, and first-hop redundancy protocols. Upon completion of the course, students will have acquired the knowledge, skills, and practical hands-on experience needed to take the CCNA certification exam. PREREQUISITES: Course 150-114 - Network Concepts - CCNA1

### **150-131**

#### **Network Specialist Internship**

**Credits: 3.00**

Establishes an opportunity for the student to apply training and skills in a business/ industrial/ academic work environment. The student will spend 144 hours at the worksite. Student contracts with the employer and the instructor regarding the work agreement and competencies. Classroom hours will include preparation of job

portfolio materials and practicing interview techniques. PREREQUISITES: Course 150-114 - Network Concepts - CCNA1 Take 107-193 - IT Essentials

### **150-136**

#### **Server Technologies**

**Credits: 3.00**

Learn advanced server technology skills to prepare you to support a production server. These skills include server upgrades, fault tolerance, advanced networking, disaster planning and more. Develop a basic technology plan which includes server management and disaster recovery plans. This class will also prepare you to take the CompTIA's Server+ industry certification exam. PREREQUISITES: Course 801-197 - Technical Reporting Take 107-193 - IT Essentials

### **150-145**

#### **IT Scripting**

**Credits: 3.00**

This course is designed to provide an overview of modern scripting languages commonly used to build and extend network administration and security tools. The course will introduce the student to scripting on both the Microsoft and Linux platforms. Students will explore the uses of scripting languages and third party modules for accomplishing tasks including scanning, enumeration and automation of network tasks.

### **150-149**

#### **Enterprise Networking & Security CCNA3**

**Credits: 3.00**

In this course, students investigate enterprise networking. They configure, troubleshoot, and secure enterprise network devices in a wide area network(WAN). Students examine WAN technologies and quality of service (QoS)mechanisms used to secure remote access. They explore software-defined networking, virtualization, and automation concepts that support the digitalization of networks. Upon completion of the course, students will have completed the CCNA course series, and they will have acquired practical, hands-on experience to prepare them for the CCNA certification exam. PREREQUISITES: # Take 150-124 - Routing CCNA 2; Minimum grade C,TR;

### **150-150**

#### **Red Hat Enterprise Linux I**

**Credits: 3.00**

In this course, learners explore key command line concepts and enterprise-level tools. They investigate foundational Linux skills and core tasks such as file management; file systems and storage; and the update, install, and configuration of software packages. Learners administer users and groups. Upon successful completion of this course and the second course in this series (Red Hat SystemAdministration II), learners will be prepared to take the Red Hat Certified SystemAdministrator (RHCSA®) exam. PREREQUISITES: # Take 150-109 or 150-119 - Network Admin Microsoft Server 2019 with a minimum grade C or TR; COREQUISITES: Take 801-136 - English Composition 1

### **150-151**

## **Red Hat Enterprise Linux II**

**Credits: 3.00**

In this course, learners explore key tasks needed to become a Linux administrator. They build on foundational Linux skills as they learn to manage security and system access; execute shell scripts; automate repetitive tasks; manage storage devices, logical volumes, and file systems; and install Red Hat Enterprise Linux using scalable methods. Upon successful completion of this course learners will be prepared to take the Red Hat Certified System Administrator (RHCSA®) exam. PREREQUISITES: Take 150-150 - Red Hat Enterprise Linux I; Minimum grade C,TR;

### **150-181**

#### **Cloud Technologies**

**Credits: 4.00**

In this course, learners are introduced to different cloud computing infrastructures. Learners will develop skills for architecting the best cloud infrastructure solution for a business' goals. Cloud virtualization technologies will be examined and cloud solutions will be deployed. Cloud-related virtualization, networking, management, storage, security, and performance will be explored. Upon completion of the course, students will be able to deploy technology solutions within the cloud based infrastructure. PREREQUISITES: Complete course 150-124 - Routing CCNA 2

### **150-182**

#### **IoT: Connecting Devices**

**Credits: 3.00**

In this course, learners are introduced to the interconnection of data, people, processes and things that forms the Internet of Things (IoT). Learners will differentiate among smart devices, connected devices, and Internet of Things (IoT) devices. Machine-to-machine (M2M), machine-to-people (M2P), and people-to-people (P2P) connections in an IoT solution will be examined. Security concerns that must be considered when implementing IoT solutions will be investigated. Upon completion of the course, learners will be able communicate with data over networks to IoT frameworks.

### **150-183**

#### **VCP: Virtualization Technologies**

**Credits: 3.00**

In this course, learners are introduced to Enterprise virtualization using VMware vSphere, ESXi and vCenter. Through hands-on experience, learners install, configure, and manage VMware vSphere environments. Storage and networking concepts related to virtualization are examined. Upon completion of the course, learners will be prepared to take the VCP certification exam. PREREQUISITES: Complete course 150-110 or 150-120 - Network Admin Microsoft Server 2 2019 minimum grade C or TR;

### **150-194**

#### **Network Security**

**Credits: 3.00**

Students will learn how to maintain security in the workplace. Security plans will be created based on, but not limited to, ten key security technologies: access control, network security, management security procedures, systems development security, cryptography, security models, operations security, disaster recovery, laws and ethics, and physical security.

### **150-198**

#### **Interconnecting Cisco Network Dev P1**

**Credits: 1.00**

640-822 ICND1: Interconnecting Cisco Networking Devices Part 1, this course focuses on providing the skills and knowledge necessary to install, operate, and troubleshoot a small branch office Enterprise network, including configuring a switch, router, and connecting to a WAN and implementing network security. A student should be able to complete configuration and implementation of a small branch office network under supervision. PREREQUISITES: Course 150-124 - Routing CCNA 2 with a minimum grade of C or TR;

### **150-199**

#### **Interconnecting Cisco Network Dev P2**

**Credits: 1.00**

640-816 ICND2: Interconnecting Cisco Networking Devices Part 2 this course focuses on providing the skills and knowledge necessary to install, operate, and troubleshoot a small to medium-size branch office Enterprise network, including configuring several switches and routers, connecting to a WAN and implementing network security. PREREQUISITES: Course 150-135 with a minimum grade of C or TR;

### **150-301**

#### **Networking Principles**

**Credits: 2.00**

This course will provide you with networking concepts. Topics will include the OSI model, wireless, security, topologies, basic router setup and switch configuration, network connectivity, and hardware and software configurations. You will also learn how to create local area networks. Individuals will learn real-world skills related to employment.

### **151-121**

#### **Cloud Data Security**

**Credits: 3.00**

In this course, students examine key considerations in migrating to cloud computing. They investigate cloud deployment, service models, and cloud infrastructure. Students analyze technologies required to build classic (traditional), virtualized, and cloud data center environments. Upon completion of the course, students will be able to make informed decisions about migrating to the cloud infrastructure and choosing the best deployment model for an organization. PREREQUISITES: Take 151-123 - Cybersecurity OR 150-146;

### **151-122**

#### **Computer Security/ Penetration Test**

**Credits: 3.00**

In this course, students examine network security topics through real-world examples. They explore how and why people attack computers and networks. Students investigate and apply tools and techniques commonly used for penetration testing. Upon completion of the course, students will be able to recognize areas of vulnerabilities in a network environment and provide security solutions for the organization. PREREQUISITES: Take 151-130 - Cisco CyberOps (soc); Minimum grade C,TR;

**151-123****Cybersecurity****Credits: 3.00**

In this course, students develop ethical offensive and defensive strategies to protect various network configurations. They select tools and technologies to use during simulated attacks. Upon completion of the course, students will be able to analyze and secure network systems.

**151-130****Cisco CyberOps (soc)****Credits: 3.00**

The CCNA Cybersecurity Operations curriculum provides an introduction to the knowledge and skills needed for a Network Security Specialist working with a Security Operations Center (SOC) team. Students learn core security skills needed for monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats and vulnerabilities. Upon completion of this course, students can prepare for the Implementing Cisco Cybersecurity Operations (SECOPS) Certification Exam. PREREQUISITES: Course 150-146 or 151-123 - Cybersecurity

**151-131****Managing and Configuring Firewalls****Credits: 3.00**

In this class, students will gain an in-depth knowledge of how to install, configure, and manage firewalls for the defense of the enterprise network architecture. Students will also learn the theory, as well as configuration steps for the security, networking, threat prevention, logging, and reporting features of next-generation firewalls. Upon completion of this course, students can install, configure and update next-generation firewalls. PREREQUISITES: Courses 150-146 or 151-123 - Cybersecurity minimum grade C or TR;

**151-132****SOC: Monitor/Secure the Infrastructure****Credits: 3.00**

Learners will monitor, administer, manage, and control one or more networks. The overall function is to maintain optimal network operations across a variety of platforms, mediums and communications channels. Problems will be introduced into the networks and students will be required to work as a team to troubleshoot and fix the systems in a timely manner. Upon completion of this course, the student should be able to

recognize and troubleshoot network issues while maintaining availability. PREREQUISITES: Course 151-130 - Cisco CyberOps (soc)

### **152-001**

#### **Front-End Development with React**

**Credits: 3.00**

In this course, students develop React applications using JavaScript and JSX tags. They examine the architecture of React applications including components, props and states, directives and services. Students create single-page applications that utilize data binding, the React router library and are based on components and JSX. Upon completion of the course, students will be able to create modern single page applications utilizing the React framework to solve a specific development need.

### **152-080**

#### **Databases**

**Credits: 3.00**

In this course, students explore concepts, design, documentation, and implementation of various database systems, including proprietary and open source technologies. Students implement Structured Query Language (SQL) to store, retrieve, and manipulate data. Students create queries, normalize database structures, and create stored procedures. Upon completion of this course, students will be prepared to develop and maintain databases used in application development.

### **152-081**

#### **Programming in Python**

**Credits: 3.00**

In this course, students investigate the fundamentals of computer programming using the Python programming language. Students examine data types, variables, conditional statements, looping, array structures, and structured programming techniques. Upon completion of the course, students will be able to use Python to apply problem solving skills to create applications for delivery to various platforms.

### **152-083**

#### **Web Developer Project**

**Credits: 3.00**

In this course, students examine the fundamental concepts of project management for web projects. Students implement the full project management life cycle, from the basics of getting started (defining the project and scope, prioritizing and estimating features) to developing and deploying the website. Students practice: user interface design, marketing strategies, secure web hosting and domain names, and search engine optimization techniques. Upon completion of this course, students apply project management skills to create a website or application, which they can add to their portfolio, for a business or industry client. PREREQUISITES: Take 801-136 - English Composition 1 Complete course 152-150 - Web Programming 2 or 152-102 - Advanced Web Programming with Minimum Grade C; TAKE 152-188 - PHP Web Programming with Minimum Grade C; Take 801-196 - Oral/Interpersonal Communication OR 801-198 - Speech OR 801-197 - Technical Reporting

**152-084****Front-End Development with Angular****Credits: 3.00**

This course introduces students to the Angular framework. Students will use Typescript for developing Angular applications. Students learn the architecture of Angular applications including components, directives and services. Students will create single-page applications that utilize data binding, the Angular router, and are based on template-driven and reactive forms. Upon completion students will be able to create modern single page applications utilizing the Angular framework to solve a specific development need. PREREQUISITES: Complete course 152-097 - Javascript with a minimum grade C minimum grade C;

**152-085****Java Web Internship****Credits: 1.00**

This course establishes an opportunity for the student to apply training and skills in a business/industrial academic work environment. The student will spend 36 hours at the worksite and contracts with the employer and the instructor regarding the work agreement and competencies. Classroom hours will include preparation of job portfolio materials and practicing interview techniques. COREQUISITES: Complete course 152-150 - Web Programming 2

**152-086****Review for Java Certification Exam****Credits: 1.00**

This course helps prepare an individual for the Oracle Java certification exam. The focus of the review will be on the topic areas of the certification exam: java basics, java datatypes, operators and decision constructs, arrays, loop constructs, methods and encapsulation, inheritance, handling exceptions and the Java API. This is a one credit review class and not a hands-on lab class. COREQUISITES: Complete course 152-174 - Java Programming 2

**152-087****Review for Exam MTA 98-364 (Database)****Credits: 1.00**

This course helps prepare an individual for the Microsoft Technology Associate (MTA) Database Fundamentals certification exam. The focus of the review will be on the five topic areas of the certification exam: understanding core database concepts, create database objects, manipulate data, understand data storage and administer a database. This is a one credit review class and not a hands-on lab class. COREQUISITES: Complete course 152-146 - Databases, Advanced

**152-088****Programming Logic****Credits: 1.00**

This course introduces the student to the program development and design process, including computer-based concepts of problem-solving, structured programming logic and techniques, algorithm development, pseudocoding and program design. Enrolled students acquire a set of specific computer programming skills as they learn to think like programmers.

### **152-093**

#### **IBM Advanced Java Programming**

**Credits: 3.00**

This course will introduce dynamic web application development using Java Servlets and JSP technologies. Moreover databases in web applications and the Java Database Connectivity (JDBC) API will also be covered. Students will also be learning to program Java Applications using XML (Extensible Markup Language), multithreading, I/O, and network programming. Students will be learning to develop N-Tier e-Business applications. PREREQUISITES: Course 152-141 - Java Programming- IBM Systems minimum grade of C or TR; TAKE 152-145 - Internet Programming; MINIMUM GRADE C OR TR; Take 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning OR 804-115 - College Technical Math 1

### **152-097**

#### **Javascript**

**Credits: 3.00**

This course will introduce students how to add intuitive, dynamic and animated interaction between their web pages and visitors. Using HTML.5 as a base, we will use Javascript, Ajax, and jQuery library to react to user actions and change webpage structure, content, and appearance. Through this course, students will learn how to dynamically refine, design appearance, control and manipulate HTML elements via the DOM API, and create content within a medium that is used for both desktop and mobile device computing. PREREQUISITES: Complete course 152-182 - Web Programming 1 OR 152-101 - Web Programming with minimum grade of C;

### **152-101**

#### **Web Programming**

**Credits: 4.00**

In this course, students create websites using HTML and CSS and examine effective techniques for succeeding in the Web Software Developer career path. They explore fundamental IT skills, standards-based coding, and web page design techniques. Students practice image manipulation and working with forms, tables, and multimedia. They examine accessibility issues, code validation, web content publishing, and an introduction to JavaScript. Upon completion of this course, students will be able to create a complete website using HTML and CSS for delivery to various platforms.

### **152-102**

#### **Advanced Web Programming**

**Credits: 3.00**

In this course, students develop server-side web applications utilizing the NodeJS platform. They examine advanced web application development focusing on RESTful development techniques and various web



Application Programming Interfaces (APIs). Students perform database operations and create data-driven applications using various tools for streamlining application development. Upon completion of this course, students will be able to build a NodeJS server-side application for delivery to various platforms.

PREREQUISITES: Take 152-101 - Web Programming or 152-182 - Web Programming 1 Minimum Grade C; Take 152-097 - Javascript; Minimum Grade C;

### **152-103**

#### **Advanced Programming in Python**

**Credits: 3.00**

In this course, students build on basic Python programming skills. They examine advanced programming techniques, explore modern web frameworks, and utilize specialized modules and packages to develop Python applications. They utilize test-driven development (TDD) techniques and various tools for streamlining application development. Upon completion of this course, students will be able to develop robust Python applications for various platforms. PREREQUISITES: Take 152-081 - Programming in Python; Minimum Grade C; Take 152-101 - Web Programming OR 152-182 - Web Programming 1; Minimum Grade C;

### **152-104**

#### **Web Frameworks**

**Credits: 3.00**

In this course, students explore web applications using a variety of modern web development frameworks. They examine advanced server-side frameworks for creating dynamic data-driven web applications. Students utilize test-driven development (TDD) techniques and various tools for streamlining application development. Upon completion of this course, students will be able to build robust web applications using modern server-side frameworks for various platforms. PREREQUISITES: Take 152-102 - Advanced Web Programming; Minimum Grade C; Take 152-080 - Databases; Minimum Grade C;

### **152-105**

#### **IBM Enterprise Systems Concepts**

**Credits: 2.00**

System i Concepts will provide an overview of the i5 Operating System functions and capabilities. Emphasis will be placed upon utilities intrinsic to the operating system and provide a prelude to the programming environment. Some of the features discussed are file structures, library organization, application development tools, control language commands, and structured query. The course will demonstrate business applications without the use of formal programming languages. The labs will focus on data collection, processing, and reporting. At the end of the course, the learner should be able to access the user support facilities, command prompting, online help, and various commands to organize and manipulate the system. It is the intent of the course to make the learner knowledgeable and comfortable enough with the platform and operating system to focus on the programming languages supported by i5/OS Operating System. COREQUISITES: Course 107-011 - IT in Business

### **152-106**

#### **Swift Programming 1**

**Credits: 3.00**

In this course, students explore the Swift programming language. They examine Swift language fundamentals, algorithm structures, and basic datatypes. Students use software tools to build graphical applications. Upon completion of this course, students will be able to build applications for multiple Apple platforms.

**152-107****Swift Programming 2****Credits: 3.00**

In this course, students apply the fundamentals of the Swift programming language. They build on skills acquired in Swift Programming 1. Students use graphical application development tools to build user interfaces. They examine advanced programming techniques, language features, and data structures. Upon completion of the course, students will be able to create iOS apps that adhere to standard practices, UI elements and layout techniques, and common navigation interfaces. PREREQUISITES: Take 152-106 - Swift Programming 1; Minimum Grade of C;

**152-122****Computer Programming RPG/IV (ILE)****Credits: 3.00**

Business oriented programming language. Topics include: specification forms, logic cycle, RPG structure commands, physical and logical file structures, externally described printer files, table and array processing, joined logical files, multiple physical files, extensive programming and documentation of business related applications. PREREQUISITES: Take 152-126 - Programming & Database, Introduction to Concepts Take 152-133 - IBM Control Language

**152-124****Computer Programming C****Credits: 3.00**

Learn the principles of object oriented programming using C++. Topics include: formatted 1/10 streams, variables, constants, references, functions, decisions, loops, classes, objects, inheritance, memory management, libraries, and error handlers. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts

**152-125****Computer Programming RPG/IV (ILE), Adv****Credits: 3.00**

Describe and define syntax for constructing online business applications using IBM's High Level Language RPG/400. Competencies learned in RPG/400 are enhanced with additional focus on the following topics: creating sub-file structures, interactive programming techniques, use of arrays and matrixes, creating and using Help screens, introduction to group update techniques and to DB2 relational database. PREREQUISITES: Course 152-122 - Computer Programming RPG/IV (ILE)

## **152-126**

### **Programming & Database, Introduction to Concepts**

**Credits: 4.00**

This class will introduce students to the structures, logic, and controls of programming techniques and database applications. Students will be able to develop a program that will utilize a database.

## **152-129**

### **Web Project Management**

**Credits: 2.00**

This course covers the fundamentals of project management for web projects. The course covers the full project management lifecycle, from the basics of getting started (defining the project and scope, prioritizing and estimating features) to developing and deploying the website. In this course the students will work with a business client to design, develop and deploy a website. PREREQUISITES: Course 152-150 - Web Programming 2

## **152-131**

### **Systems Design and Development**

**Credits: 3.00**

Introduction to systems development and design concepts. Survey of business applications and their relationship to computers. Students will develop a business system and its associated documentation. PREREQUISITES: Course 152-122 - Computer Programming RPG/IV (ILE) with a minimum grade of C or TR;

## **152-133**

### **IBM Control Language**

**Credits: 2.00**

AS/400 Control Language (CL) commands, functions, and applications are used in a hands-on environment. PREREQUISITES: Course 152-105 - IBM Enterprise Systems Concepts

## **152-139**

### **Ruby on Rails**

**Credits: 3.00**

This course introduces the student to the Ruby a popular, open-source, dynamic object-oriented scripting language, and the Rails Application framework based on an MVC architecture. Topics will include installing Ruby and Rails, an introduction to the Ruby programming language, an overview of the Rails framework, ActiveRecord basics, ActionController coding, Action Views, AJAX and the Web 2.0 Action mailer basics, security, deployment and scaling. Students will produce a very modern web application that can be adapted to many professional web development needs. PREREQUISITES: Course 152-188 - PHP Web Programming

## **152-140**

## **Web Internship**

**Credits: 3.00**

This course establishes an opportunity for the student to apply training and skills in a business/industrial/academic work environment. The student will spend 144 hours at the worksite and contracts with the employer and the instructor regarding the work agreement and competencies. Classroom hours will include preparation of job portfolio materials and practicing interview techniques. PREREQUISITES: Take 152-080 - Databases; Minimum Grade of C; Take 152-101 - Web Programming; Minimum Grade of C;

### **152-141**

## **Java Programming- IBM Systems**

**Credits: 3.00**

This course introduces the new learner to the Java programming language, specifically as it relates to the IBM iSeries platform. Specific iSeries subjects covered will include using WebSphere Development Studio, accessing AS/400 objects from Java, working with AS/400 databases, and building AS/400 graphical applications. PREREQUISITES: TAKE 152-105 - IBM Enterprise Systems Concepts TAKE 152-126 - Programming & Database, Introduction to Concepts

### **152-143**

## **iSeries Operations in the Workplace**

**Credits: 3.00**

This course introduces the learner to the basic concepts of navigation and operation of various utilities and tools of the Midrange business computer. The intent of this certificate is to establish in the student a knowledge base for handling the physical support of operations in a business environment. The successful participant of the program will understand the architecture of the platform, work with the user interface, and handle work management, job streams, message handling, print functions, and client access support. PREREQUISITES: Course 152-105 - IBM Enterprise Systems Concepts

### **152-145**

## **Internet Programming**

**Credits: 3.00**

This introduction to web programming will explore a variety of tools used for web page creation. An introduction to client side internet website programming, this course covers HTML, CSS, DHTML, and JavaScript. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts

### **152-146**

## **Databases, Advanced**

**Credits: 3.00**

This course offers students an introduction to enterprise data server technology. The class covers the concepts of both relational and object relational databases and the powerful SQL programming language. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data. Demonstrations

and hands-on practice reinforce the fundamental concepts. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts or 152-184 - Java Programming 1

### **152-149**

#### **IBM i System Administration**

**Credits: 3.00**

This course is designed to prepare the student for a junior IBM i administrator position. After completing this course the student will have a in-depth understanding of the IBM i operating system as well as the ability configure hardware and software on the system. This course provides the student with hands-on exercises configuring IBM i software and hardware.

### **152-150**

#### **Web Programming 2**

**Credits: 3.00**

This course provides an introduction to HTML, CSS, and JavaScript. The course focuses on using HTML/CSS/JavaScript to apply programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create well-structured applications. This course will help prepare students for exam 70-480. PREREQUISITES: Course 152-182 - Web Programming 1 with minimum grade of C OR TR; TAKE 152-097 - Javascript; MINIMUM GRADE C,TR;

### **152-151**

#### **Microcomputer Programming Advanced**

**Credits: 3.00**

A class in advanced microcomputer programming techniques. This class will examine trends in microcomputer program development including: use of objects, database access, receiving user input, displaying output, error handling, application controls, and online assistance. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts

### **152-157**

#### **Game Programming I**

**Credits: 3.00**

This course is an introduction to computer game programming. Students will create their own computer games utilizing development tools. Through hands-on work students will learn how to develop a typical game. Topics include graphics, game design, bitmaps, sprites and backgrounds. Students will design, implement, and test interactive computer games. This course requires prior computer programming skills. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts

### **152-158**

#### **DB2 UDB Programming & Stored Procedures**

**Credits: 3.00**

Exploring the powerful programming features of RDBMS is required in developing enterprise wide applications. This course provides a comprehensive review of DB2 programming using Java, embedded SQL, and stored procedures. This course also discusses advanced RDBMS concepts. This course may only be offered by authorized e-business application advanced career education program providers with IBM authorized instructors, software, and hardware. PREREQUISITES: TAKE 152-126 - Programming & Database, Introduction to Concepts TAKE 152-105 - IBM Enterprise Systems Concepts

### **152-161**

#### **Game Programming Technologies**

**Credits: 2.00**

This class examines modern technologies for computer game development. Students will learn how to install development components. In addition, students will learn how to draw game elements. PREREQUISITES: Course 152-157 - Game Programming I

### **152-164**

#### **Mobile Device Application Programming**

**Credits: 3.00**

This course teaches students to develop applications for mobile platforms. Students will utilize a Software Development Kit (SDK) to develop working applications. PREREQUISITES: Course 152-126 - Programming & Database, Introduction to Concepts or 152-184 - Java Programming 1

### **152-167**

#### **Zend (PHP) Application Prog - IBM SYS**

**Credits: 3.00**

Topics covered include techniques for modernizing traditional applications using i5 Toolkit Utilizing DB2 Storage Engine for MySQL. Development techniques necessary for the full PHP application lifecycle using a comprehensive set of editing, debugging, analysis, optimization, database tools and testing. Zend Studio for Eclipse i5 Edition. PREREQUISITES: Course 152-141 - Java Programming- IBM Systems with a minimum grade of C or TR;

### **152-168**

#### **IBM and .NET Enterprise Programming**

**Credits: 3.00**

Topics covered include advanced .NET tools for creating front end applications for the IBM i. Additional topics include database access using ADO.NET and ASP.Net, XML, Multithreaded and Parallel Programming. The course will also examine advanced .NET topics like WPF and LINQ. PREREQUISITES: Course 152-151 - Microcomputer Programming Advanced with a minimum grade of C or TR;

### **152-174**

#### **Java Programming 2**

**Credits: 3.00**

This course focuses on the advanced language features of Java. Topics will include Java servlets, database access with Java Database Connectivity (JDBC), JavaServer Pages and JavaBeans. A portion of the class deals with application design issues in a web environment as well as connecting to a backed database server. Labs and hands-on projects are a required element to this class and provide the student with experience working with the more advanced features of the Java language. PREREQUISITES: Course 152-184 - Java Programming 1 with a minimum grade of C or TR;

### **152-176**

#### **Adv Prog Sharepoint Solutions**

**Credits: 3.00**

In this course students will learn the information needed to implement SharePoint solutions using Enterprise Search, Managed Metadata Service (MMS), Business Connectivity Services (BCS), Enterprise Content Management (ECM), Web Content Management (WCM), Social computing features and SharePoint Apps. This course will help prepare students for exam 70-489. COREQUISITES: Course 152-177 - Core Prog Sharepoint Solutions

### **152-177**

#### **Core Prog Sharepoint Solutions**

**Credits: 3.00**

In this course students will cover core skills that are common to almost all SharePoint development activities. Including working with the server- and client-side object models, developing and deploying features, solutions and apps, managing identity and permissions, querying and updating list data, managing taxonomy, using workflow to manage business processes, and customizing the user interface. This course will help prepare students for exam 70-488. PREREQUISITES: Course 152-178 - Developing ASP.NET Web Apps with a minimum grade of C or TR;

### **152-178**

#### **Developing ASP.NET Web Apps**

**Credits: 3.00**

In this course students will learn to use .NET Framework tools and technologies to develop advanced ASP.NET MVC applications. The focus will be on coding activities that improve performance and scalability of Web site applications. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used. This course will help prepare students for exam 70-486. PREREQUISITES: Course 152-182 - Web Programming 1 or 152-101 - Web Programming minimum grade of C AND 152-097 - Javascript OR 152-184 - Java Programming 1 OR 152-081 - Programming in Python minimum grade of C;

### **152-179**

#### **MSCD ASP.NET MVC Review**

**Credits: 1.00**

This course helps prepare an individual for the MCS D ASP.NET MVC Web Applications certification exam. This is the second of four exams that must be passed for an individual to achieve the Microsoft Certified SharePoint

Developer certification. PREREQUISITES: Course 152-178 - Developing ASP.NET Web Apps with a minimum grade of C or TR;

### **152-180**

#### **MCSO Server Advanced Review**

**Credits: 1.00**

This course helps prepare an individual for the MCSO Server Advanced Solutions certification exam. This is the last of four exams that must be passed for an individual to achieve the Microsoft Certified SharePoint Developer certification. PREREQUISITES: Course 152-176 - Adv Prog Sharepoint Solutions with a minimum grade of C or TR;

### **152-181**

#### **MCSO Server Core Review**

**Credits: 1.00**

This course helps prepare an individual for the MCSO Server Core Solutions certification exam. This is the third of four exams that must be passed for an individual to achieve the Microsoft Certified SharePoint certification. PREREQUISITES: Course 152-177 - Core Prog Sharepoint Solutions with a minimum grade of C or TR;

### **152-182**

#### **Web Programming 1**

**Credits: 3.00**

This course teaches students essential Web page development skills. Students will build an understanding of how to manage the Application Life Cycle, build the User Interface by Using HTML5, and format the User Interface by Using CSS. Other topics include validating HTML and CSS code, recognizing the importance of marketing, and implementing fundamental design concepts. COREQUISITES: Course 152-082

### **152-184**

#### **Java Programming 1**

**Credits: 3.00**

The course introduces the student to the fundamentals of object-oriented programming using the Java programming language. Students will learn the core aspects of Java including how to write and debug Java code. Labs and hands-on projects are a required element to this class and provide the student with experience working with the Java language. COREQUISITES: Course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

### **152-185**

#### **Advanced PHP**

**Credits: 3.00**

This course prepares the student to develop advanced PHP and MySQL web applications. Students will learn advanced techniques for session management, validation, and authentication. Advanced web application



features such as shopping carts, content management using Drupal, web forums and connecting to web services are discussed. PREREQUISITES: Course 152-188 - PHP Web Programming minimum grade C AND 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1 minimum grade C or TR;

### **152-186**

#### **Mobile Game Programming**

**Credits: 3.00**

This class is designed to give students a foundation for writing games on mobile devices. PREREQUISITES: Course 152-157 - Game Programming I

### **152-187**

#### **Web Developer/Administrator Orientation**

**Credits: 1.00**

Students develop skills to enhance their success in the Gateway Technical College Web Developer/Administrator program and their career. These skills include self-assessment, time management, study skills, learning styles, and stress management. Students research the Web Programming/Administrator field through the Internet, periodicals, and surveys. Students design an academic and career development plan and initiate their ongoing program portfolio.

### **152-188**

#### **PHP Web Programming**

**Credits: 3.00**

This hands-on PHP Web Programming course provides the knowledge necessary to design and develop dynamic, database-driven web pages. Students will learn how to write and debug PHP code, how to effectively use many of its powerful features, and how to design and build their own PHP web applications. Students will design and create a Web Database using the popular MySQL DBMS to function as a backend database for their PHP website. PREREQUISITES: Course 152-182 - Web Programming 1 or 152-101 - Web Programming with a minimum grade of C AND course 152-184 - Java Programming 1 or 152-081 - Programming in Python minimum grade C;

### **152-189**

#### **Graphics Programming with Dynamic Elements**

**Credits: 3.00**

This advanced course uses the languages and elements introduced in the prerequisite and extend the dynamic interaction and animation of HTML5 and Javascript. Students will use JQuery and Ajax Animator to create animations; use still and video motion to further enrich dynamic websites that could be used for desktop and mobile computing alike. Students will use Web based Object Oriented programming to create interactive projects. PREREQUISITES: Course 152-190 - Elements of Dynamic Web Design

### **152-190**

#### **Elements of Dynamic Web Design**

**Credits: 2.00**

This course will introduce students to how to add intuitive, dynamic and animated interaction between their webpages and its visitors. Using HTML5 as a base, we will be using the universal languages of Javascript and Ajax to react to user actions and change webpage structure, content, and appearance. Through this course, we will learn how to dynamically refine design appearance and create content within a medium that is used for both desktop and mobile device computing. PREREQUISITES: Course 152-182 - Web Programming 1 and 152-187 - Web Developer/Administrator Orientation with a minimum grade of C or TR;

**154-109****Computer Support Specialist Internship****Credits: 3.00**

Establishes an opportunity for the student to apply training and skills in a business/ industrial/ academic work environment. The student will spend 144 hours at the worksite. Student contracts with the employer and the instructor regarding the work agreement and competencies. Classroom hours will include preparation of job portfolio materials and practicing interview techniques. COREQUISITES: Course 154-113 - IT Apps Server & Support Take 154-114 - Hardware & Software Support

**154-112****Data Security & Recovery Support****Credits: 3.00**

Focus will be on desktop data security, data retention and recovery. Students will be introduced to computer forensics / data recovery tools, local security issues, disaster recovery plans and legal data requirements (i.e. HIPPA requirements, Sarbanes-Oxley Act, etc.). PREREQUISITES: Course 154-114 - Hardware & Software Support with a minimum grade of C AND course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1;

**154-113****IT Apps Server & Support****Credits: 3.00**

Students will learn to resolve operating system and application issues by telephone, remote access, or by visiting an end user's desktop. Students will gain a working knowledge of operating in a workgroup and a client/server environment. NOTE: This course will help prepare the student to take the Microsoft Certified Desktop Technician Exam 70-272. PREREQUISITES: Course 154-114 - Hardware & Software Support with a minimum grade of C or TR;

**154-114****Hardware & Software Support****Credits: 3.00**

Students will learn to resolve hardware and software issues in a multiplatform environment. Students will troubleshoot and repair various systems and applications, as well as desktop issues. NOTE: This course will

help prepare students to attain certifications if desired. PREREQUISITES: Course 154-119 - System Software Support with a minimum grade of C or TR; Take 107-193 - IT Essentials; Minimum Grade C,TR;

### **154-116**

#### **Emerging Technologies & Applications**

**Credits: 2.00**

Students will research, explore and evaluate new and future hardware and software advancements and trends. Areas to investigate may include contemporary package development applications, collaboration tools, reporting software, and innovative equipment and hardware, as well as new versions of current standards in software and applications. PREREQUISITES: Course 154-112 - Data Security & Recovery Support with a minimum grade of C or TR;

### **154-118**

#### **CSS Skills Implementation & Career Prep**

**Credits: 3.00**

This capstone class will provide students with opportunities to apply knowledge and concepts acquired in program coursework. Students will develop proficiency while resolving issues in a simulated, scenario-based environment. In addition to reinforcement of concepts previously covered in the curriculum, the course will include employment seeking skills (resumes, portfolios, interviewing), image creation and deployment, and remote desktop diagnostics/troubleshooting. PREREQUISITES: Complete course 154-113 - IT Apps Server & Support with a minimum grade of C; Take 801-197 - Technical Reporting

### **154-119**

#### **System Software Support**

**Credits: 3.00**

Focus will be on the principles of system software and utilities. This course will enable the learner to effectively configure and troubleshoot system software in multiple environments. Students will be introduced to integrated tools within the software and the different methods for interacting with system software. Topics will include Windows command-line, Linux GUI and command-line, emulation/connectivity to other non-PC-based systems and network directory services. COREQUISITES: Take 801-136 - English Composition 1

### **154-120**

#### **Advanced Help Service Desk**

**Credits: 3.00**

This capstone class broadens the students' customer service skill set. The course continues to build on end user communication methods, both oral and written. Students will be exposed to Information Technology Infrastructure Library (ITIL) methodology and Help Desk Institute (HDI) best practices. PREREQUISITES: Course 154-122 - Help Service Desk, Intro

### **154-122**

#### **Help Service Desk, Intro**

**Credits: 3.00**

This class broadens the students' customer service skill set. The course continues to build on end user communication methods, both oral and written. Students will be expected to prepare and deliver end user training, create written and online manuals and FAQ's (Frequently Asked Questions), and perform the day-to-day duties in a variety of help desk environments. PREREQUISITES: Course 107-193 - IT Essentials with a minimum grade of C; COREQUISITES: Course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

**154-126****IT Project Management Essentials****Credits: 1.00**

This course prepares the student for a foundation in project management. Content includes project management principles, leadership, and team building.

**154-130****Google IT Support Professional 1****Credits: 2.00**

This course is the first of two required courses for the Gateway Technical College Google IT Professional Certificate and aligns with courses 1 and 2 of the Google IT Support Professional Certificate. Students prepare for an entry-level Information Technology (IT) support role through an introduction to the world of IT and its history. Students explore hardware and software, operating systems, and the Internet to acquire skills related to computer network technologies, protocols, applications, troubleshooting, cloud computing and storage. Upon completion, students relate the fundamentals of IT support to workplace success and are ready to participate in the second Gateway Technical College Google IT Professional Certificate course.

**154-131****Google IT Support Professional 2****Credits: 3.00**

This is the second of two required courses for the Gateway Technical College Google IT Professional Certificate and aligns with courses 3, 4, and 5 of the Google IT Support Professional Certificate. Students build on the skills acquired in Course 1 to continue their preparation for an entry-level Information Technology (IT) support role. Students analyze operating system components and practice hardware configuration and software and user management tasks. In addition, learners examine systems administration and best practices for selecting hardware, investigate IT security, perform risk evaluation and investigate securing networks. Upon completion of the course, students perform fundamental IT support tasks in support of workplace success and are prepared to seek the Google IT Support Professional Certificate. PREREQUISITES: Take 154-130 - Google IT Support Professional 1

**154-701****Research and Troubleshooting****Credits: 2.00**

Provides instruction to IT Service Desk Technician Research and Troubleshooting skills. Apprentices perform research and troubleshooting skills, investigate Service Desk operations, create a support utility kit, correct information and mistakes.

### **154-702**

#### **Service Desk Documentation**

**Credits: 1.00**

Provides instruction to IT Service Desk Technician Documentation skills. Apprentices perform communication and documentation skills related to incorporating information sources, writing procedures, maintaining a knowledge base, preparing reports, presenting oral reports, and developing ticketing skills.

### **154-703**

#### **Service Desk Professional Skills**

**Credits: 1.00**

Provides instruction to IT Service Desk Technician professional skills. Apprentices will develop customer service skills, manage difficult customers, develop professional business skills, work with teams, minimize effects of stressful situations, develop time management skills.

### **156-018**

#### **Fundamentals of IT**

**Credits: 3.00**

In this course, students will explore the fundamental aspects of information technology. Students investigate basic hardware systems, various operating systems, important software packages, networking fundamentals, basic internet technologies, and essential problem solving techniques. Upon completion of the class, students are prepared to utilize their IT skills to work effectively in IT-related tasks. COREQUISITES: Take 804-135 - Quantitative Reasoning

### **156-019**

#### **Introduction to Management Info Systems**

**Credits: 3.00**

In this course, students explore information systems and their role in organizations. They examine management decision support systems, system analysis and design methodologies, information processing technologies, and their role in decision making. Students will explore tools and techniques for supporting and executing organizational processes. Upon completion of the course, students will work as a team to design an information systems solution to meet a specific business need. COREQUISITES: Complete course 801-136 - English Composition 1

### **156-100**

#### **Data Analytics 1**

**Credits: 3.00**

In this course, students will learn the basic concepts of data analysis and how they are used to drive business processes. Students will learn to identify and retrieve relevant data sources, and to prepare data for analysis with pre-configured and custom tools. Upon completion of this course, students will be able to prepare data for further analysis to drive decision making for business. PREREQUISITES: Complete course 152-081 - Programming in Python minimum grade C or TR;

### **156-101**

#### **Data Analytics 2**

**Credits: 3.00**

In this course, students will build upon the skills learned in Data Analytics 1. Students will learn to work with large data sets and organize that information for effective data analysis. Students utilize commercial data analysis software packages, and create custom computer programs to analyze data. Upon completion of the course, students will be able to perform analysis of relevant data with various software tools, and use the generated information to help make informed business decisions. PREREQUISITES: Complete course 152-080 - Databases minimum grade C; Take 156-100 - Data Analytics 1; Minimum grade C,TR;

### **156-102**

#### **Introduction to Artificial Intelligence**

**Credits: 3.00**

In this course students will learn basic concepts and applications of Artificial Intelligence (AI), including AI project cycles. Instruction will focus on issues surrounding AI including ethics, bias, culture, regulations. Upon completion of this course students will be able to apply AI concepts to organizational solutions.

### **156-103**

#### **Introduction to Machine Learning**

**Credits: 3.00**

In this course students will learn Machine Learning (ML) concepts and Python applications. This will include instruction on data acquisition, supervised and unsupervised learning, and data modeling. Upon completion of this course students will be able to apply ML concepts to organizational solutions.

### **156-104**

#### **Natural Language Processing (NLP)**

**Credits: 3.00**

In this course students will learn the fundamental concepts in Natural Language Processing (NLP) and text processing. Instructions will focus on knowledge and skills necessary to create language recognition applications. Upon completion of the course students will be able to build an application that processes language to apply to an organizational solution. PREREQUISITES: Take 156-102 - Introduction to Artificial Intelligence Take 156-103 - Introduction to Machine Learning

### **156-105**

#### **AI for Computer Vision**

**Credits: 3.00**

In this course students will learn the fundamental concepts in Computer Vision (CV) and image processing. Instruction will include usage of Python CV libraries and building software applications to process images. Upon completion of this course students will be able to build an application to apply to organizational solutions. PREREQUISITES: Take 156-102 - Introduction to Artificial Intelligence Take 156-103 - Introduction to Machine Learning

**156-120****Programming in R****Credits: 3.00**

In this course, students will learn to use the R programming language to analyze data. Students will learn the syntax and data structures of the R language, and how to apply the language to perform traditional statistical analysis, such as means testing, variable correlations, and linear regressions. Upon completion, students will be able to create R programs to process data and create meaningful output rooted in sound statistical techniques. PREREQUISITES: Complete course 156-100 - Data Analytics 1 minimum grade C or TR; Take 804-189 - Statistics, Introductory

**156-125****Business Intelligence and Visualization****Credits: 3.00**

In this course, students will learn to organize, manage and analyze very large data sets from various sources. Students will use software tools to present complex data in visually meaningful representations that can be communicated to business stakeholders. Upon completion, students will learn how to transform raw data into meaningful information that will be utilized for data-driven decision making. PREREQUISITES: Complete course 156-101 - Data Analytics 2 minimum grade C or TR; Take 156-120 - Programming in R; Minimum Grade C,TR;

**156-130****Data Analytics Capstone****Credits: 3.00**

In this course, students apply data analysis techniques to a real world project. Students will interface with a client data source and prepare the data for analysis to help determine the outcome a industry problem that needs to be solved. Upon completion of this course, students will work in teams to create visualizations, gather business intelligence information, and provide structured data to assist in making a business decision. PREREQUISITES: Take 156-101 - Data Analytics 2 with minimum grade of C or TR; Take 156-120 - Programming in R; Minimum grade C,TR; COREQUISITES: Complete course 156-125 - Business Intelligence and Visualization

**182-101****Supply Chain Management****Credits: 3.00**

The Supply Chain Management course is designed to examine Supply Chain Management Fundamentals; Procurement, Manufacturing and Operations Management, Transportation and Logistics, Inventory and

Warehousing, Demand Planning, Scheduling and Performance Management or Analysis. Topics include creating and executing supply chain strategies that meet customer needs and increase profits; learning how successful supply chain management adds value to your organization; understanding customer loyalty and the lifetime value of a customer; understanding the role of data and information technology in support of the supply chain; and exploring the IT infrastructure as it relates to supply chain management systems.

### **182-102**

#### **Introduction to Logistics**

**Credits: 3.00**

This course prepares the students to be able to explain the historical and economic significance of transportation in US and world economies, utilize the correct transportation terminology, analyze the operating and service characteristics of the five major modes of transportation, differentiate cost and pricing structures of five major modes of transportation, decide the best mode of transportation to use for specific shipments, analyze the forms of special transportation services, and analyze the information technology systems used in the transportation industry. Students in this class will learn the language and benefits of efficient transportation and warehousing strategies.

### **182-103**

#### **Global Supply Chain Management**

**Credits: 3.00**

This course introduces the student to supply chain financial transactions which include foreign exchange market, fluctuations of the market, role of the global capital market, major determinants in country risk, methods of foreign market entry, international contracts and commercial documents, export packaging, customs clearance, and global supply chain logistics infrastructure. PREREQUISITES: Course 182-101 - Supply Chain Management with minimum grade C or TR;

### **182-106**

#### **Enterprise Resource Planning & Control**

**Credits: 3.00**

This course will provide the fundamentals of enterprise resource planning (ERP) systems concepts, and the importance of integrated information systems in an organization. The focus of this course is on illustrating procurement, production, and sales business processes using ERP software. This course introduces the world of ERP's to future Supply Chain employee's. The understanding of the benefits of technology use within the efficient movement of materials and products is essential in the world of Supply Chain. PREREQUISITES: Courses 182-101 - Supply Chain Management with minimum grade C or TR; Take 801-136 - English Composition 1; Minimum Grade C,TR; Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Minimum Grade C,TR;

### **182-107**

#### **Supply Chain Internship**

**Credits: 3.00**



This course is an occupational experience opportunity within the district for students in their final semester of the Supply Chain Management degree. Instructor consent is mandatory prior to registration for this course. The course will include work related observation and written reports to the program faculty regarding the practical application of what is learned in the Supply Chain Management Program.

### **182-108**

#### **Purchasing**

**Credits: 3.00**

This course includes an analysis of the purchasing process, a review of purchasing activities, and identification of purchasing problems in modern organizations. Attention is given to the role of purchasing in the organization, supplier selection, negotiation, sourcing issues, inventory management, and quality concerns.

### **182-115**

#### **Introduction to Manufacturing & Robotics**

**Credits: 3.00**

In this course, learners examine the historical significance of manufacturing and robotics in the US and world economies. Learners identify a wide variety of manufacturing processes, and analyze manufacturing systems in terms of material flow and storage, information flow, capacities, and times and durations of events. Learners explore the relationships among the properties of the material, the manufacturing process, and the design of components. Upon successful completion of the course, learners will be able to communicate the language and benefits of manufacturing and robotics.

### **182-182**

#### **Transportation Management**

**Credits: 3.00**

In this course, students explore the complexity of the transportation industry. They examine modes of transportation, regulatory guidelines, and associated economic impact. Students analyze environmental and sociological elements of transportation logistics. Upon completion of the course, students will be able to explain how materials are managed as they move through the supply chain.

### **182-183**

#### **Distribution Management**

**Credits: 3.00**

In this course, students examine the role of warehousing and distribution centers as they relate to business and logistics. They analyze distribution management automation, operations, cost, and safety practices. Upon completion, students will be able to explain the activities and processes associated with the warehousing and movement of inventory throughout the supply chain.

### **196-123**

#### **Problem Solving and Decision Making**

**Credits: 2.00**

Practice sessions on problems faced on the job, problem resolution using various techniques learned in the classroom. Topics: marginal analysis; psychological decision making; cause and effect; intuition; experimental, past experience and follow-the-leader approaches, group problem-solving techniques.

### **196-129**

#### **Management Orientation**

##### **Credits: 1.00**

This course will introduce the student to the skills necessary to be successful in the Supervisory Management and Business Management programs. The language and navigation of the accelerated learning model will be explored. The student will demonstrate the use of Blackboard and Mind Mapping as well as the software used in the program such as Microsoft Word, PowerPoint and use of the internet as a research tool. This is the first course a student should take within the Supervisory Management and Business management programs.

### **196-133**

#### **Negotiations**

##### **Credits: 3.00**

This course introduces techniques and skills used in bargaining to maximize a company's profits and competitiveness for both domestic and global concessions. Interpersonal negotiations skills are essential for any person working in the business world. Students will be introduced to an interest based negotiations strategy and to conflict resolution techniques that will prove valuable throughout one's personal and professional life.

### **196-134**

#### **Legal Issues for Supervisors**

##### **Credits: 3.00**

In Legal Issues for Supervisors, the learner applies the skills and tools necessary for a supervisor to effectively function in today's legal work environment. Each learner will demonstrate the application of legal practices in both union and nonunion environments, the analysis of the impact of U.S. employment laws, the impact of the global economy, and the appeal process. Students will also learn to deal with harassment and privacy issues and summarize legal issues facing contemporary supervisors.

### **196-136**

#### **Safety in the Workplace**

##### **Credits: 3.00**

In Safety in the Workplace, the learner applies the skills and tools necessary to provide a safe and secure work environment. Each learner will demonstrate the application of safety awareness, federal/state/local compliance, incident investigation and documentation, human relations techniques, safety orientation, inspections, risk analysis, issues of workplace violence, substance abuse, health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

### **196-137**

## **Certified Service Specialist**

**Credits: 3.00**

This course validates the students interpersonal and business skills by providing the necessary work to prepare for the certification exam to earn the Certified Service Specialist Certification. The exam is the final exam for the course and certifies the student's ability to work with customers. This course explores the skills of communications, policies and procedure manuals, record keeping and evaluating performance. Focus on teams and proper functioning roles within teams in a company setting that values ethical actions in the workplace and respect for the customer and fellow workers. Problem solving, interpersonal relationships and sales and marketing skills will be honed throughout this course. Successful students will be able to represent themselves with a national certification that illustrates their understanding of the skills necessary for the service and manufacturing industry as an employee or employer.

**196-138**

## **Management for Supervisors Capstone**

**Credits: 2.00**

This course is designed to be the capstone of the Supervisory Management Program. This course validates the student's management skills by providing the necessary work to prepare for the certification exam to earn the Certified Service Manager Certification. The exam is the final exam for the course and certifies the student's ability to work with customers and team members. This course explores the knowledge of business management, project management and employee management. The student's mastery of skills in managing employees and teams are exemplified in change management, conflict resolution and leadership skills. Students will explore basic financial reports and employee management. Successful students will be able to represent themselves with a national certification that illustrates their understanding of the skills necessary for management in the service and manufacturing industries as a supervisor. COREQUISITES: Course 196-168 - Organizational Development Take 196-188 - Project Management

**196-151**

## **Operations Management**

**Credits: 3.00**

This course is designed to acquaint students with the specialized vocabulary and problems encountered in manufacturing management. Tools and techniques for solving production process problems are presented with an emphasis on quality and productivity.

**196-155**

## **Certified Customer Service**

**Credits: 1.00**

This course helps students build the necessary skills needed to be successful in working with internal and external customers. Students learn how to work with customers in a professional manner by providing world class customer service. The course prepares them for the ETA-I Customer Service Specialist (CSS) exam.

**196-156**

## **Leadership Development Capstone**

**Credits: 3.00**

In this course, students apply their knowledge and skills acquired through participation in the Leadership Development Program. Students investigate business management and project management. They examine basic financial reports and the management of employees. They apply leadership skills to change management and conflict resolution related to both individual employees and teams. Upon completion of the course, students will be ready to take the Certified Service Manager Certification exam to illustrate their acquisition of supervisory skills for the service and manufacturing industries. **PREREQUISITES:** Take 196-137 - Certified Service Specialist Take 196-164 - Personal Skills for Supervisors Take 196-192 - Managing for Quality Take 196-193 - Human Resource Management

**196-164**

### **Personal Skills for Supervisors**

**Credits: 3.00**

In Personal Skills for Supervisors, the learner applies the skills and tools necessary to deal with the time management, stress, and related challenges to a supervisor. Each learner will demonstrate the application of time management techniques, personal planning, continuous learning, valuing rights and responsibilities of others, effective communication, assertiveness, and dealing effectively with stress. **PREREQUISITES:** Take 801-136 - English Composition 1 Minimum grade C- Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Minimum grade C-;

**196-168**

### **Organizational Development**

**Credits: 3.00**

In Organizational Development, the learner applies the skills and tools necessary to deal with organizational behavior and change. Each learner will demonstrate the application of the impacts of globalization on an organization, dealing with organizational culture, change and future challenges affecting the total organization, organizational decision making, vision, goals, performance management, and planning, and the role of organizational structure.

**196-169**

### **Diversity and Change Management**

**Credits: 3.00**

In Diversity and Change Management, the learner applies the skills and tools necessary to implement and maintain a diverse work environment which values change. Each learner will demonstrate the application of: assessing the current extent of diversity in the workplace; analyzing the effect of perceptions, attitudes, biases, and organizational culture on diversity; dealing with barriers; changing management strategies, processes, and reactions; measuring progress; and celebrating success.

**196-188**

### **Project Management**

**Credits: 3.00**

In Project Management, the learner applies the skills and tools necessary to design, implement, and evaluate formal projects. Each learner will: demonstrate the application of the role of project management; develop a project proposal; use relevant software; work with project teams; sequence tasks; chart progress; and deal with variations, budgets, resources, implementation, and assessment.

**196-189****Team Building and Problem Solving****Credits: 3.00**

In Team Building and Problem Solving, the learner applies the skills and tools necessary to facilitate problem solving in a team environment. Each learner will demonstrate the application of the benefits and challenges of group work, necessary roles in a team, stages of team development, different approaches to problem solving, consensus, a systematic process of problem definition, data acquisition, analysis, the development of alternative solutions, solution implementation, and evaluation.

**196-190****Leadership Development****Credits: 3.00**

In Leadership Development, the learner applies the skills and tools necessary to fulfill his/her role as a modern leader. Each learner will demonstrate the application of: evaluating leadership effectiveness and organization requirements, using individual and group motivation strategies, implementing mission and goals, observing ethical behavior, developing personal leadership style and adaptation, understanding the impact of power, facilitating employee development, coaching, managing change, and resolving conflict effectively.

**196-191****Supervision****Credits: 3.00**

In Supervision, the learner applies the skills and tools necessary to perform the functions of a frontline leader. Each learner will demonstrate the application of strategies and transition to a contemporary supervisory role, including day-to-day operations, analysis, delegation, controlling, staffing, leadership, problem-solving, team skills, motivation, and training.

**196-192****Managing for Quality****Credits: 3.00**

This course is designed to examine the role of the supervisor in assisting an organization to produce a quality product or service. The meaning and benefits of quality, the cost of quality, how to interact with customers, and problem solving tools for continuous improvement will be covered.

**196-193****Human Resource Management**

**Credits: 3.00**

This course establishes a foundation for development of employee effectiveness by focusing on the supervisor's role in understanding, communicating, and implementing organizational policies. The organizational topics covered include: employee hiring, training, performance management, contract compliance, employment law, employee assistance programs, and related topics that affect the supervisor's work group.

**201-100****Design Concepts****Credits: 4.00**

Students will study typography, color, and layout. Studies include symmetrical and asymmetrical compositions, grid method systems, designing with type, image, and the graphic functions of typography. Students will develop an understanding of the basic design principles, including space, line, form, color, and the use of letterforms and design contrasts to convey a visual message. Students will be introduced to target markets and designing for an audience. Projects will be completed with various design media while exploring the importance of working in stages from research to rough idea to finished design work.

**201-101****Computer Illustration & Drawing Tech****Credits: 3.00**

Students will use Vector Illustration software for technical drawing, composition and implementation of created art into print, web and social media. Students will incorporate traditional drawing skills and scanning methods into their digital illustration and drawings. Composition, digital color specification and current graphic design trends will be emphasized.

**201-102****Digital Photography/ Introduction to****Credits: 3.00**

This course explores the use of digital photography, desktop scanning and photo manipulation software in the creation of photo compositions and support materials for graphic design.

**201-103****Illustration Media Concepts****Credits: 3.00**

This course guides students through an organized experimentation of traditional art media to create images that convey specific messages to viewers. A variety of media is used including: watercolor, acrylic, oil pastel, inks, dyes, collage, and computers. Good composition, visual organization, development of creative thinking and visual problem will be emphasized. This course will include a study of perspective, light, shade, and color theory. Current illustration and color trends will be explored.

**201-104**

## **Webpage Design for Graphic Designers**

**Credits: 3.00**

Students will use GUI software to design, test, publish, and edit web pages that apply basic visual principles and communication strategies. PREREQUISITES: Course 204-107 OR 201-102 - Digital Photography/Introduction to

## **201-105**

### **Multimedia Survey**

**Credits: 3.00**

This course offers tips on presentation design and the use of multimedia in the graphic design field. Students will learn how to create slides, overheads, and on-screen presentations. Transition effects and the use of sound and video will be incorporated into on-screen presentations. Students will create an interactive portfolio and at least one presentation for class demonstration.

## **201-106**

### **Design, Publishing and Prepress**

**Credits: 4.00**

This course examines the basic concepts of graphic design page layout and focuses on the principles, equipment, software, and workflow used in the design and publishing process. Students will integrate basic marketing principles in their design strategies and will apply graphic design concepts to produce page layout projects. In so doing, they will understand the primary components of design and publishing; research, strategy, input, composition, project development, and output. Digital prepress fundamentals used in preparing graphic design artwork for printing and publishing will be studied. Color separations, trapping and/or press ready artwork as well as History and discussion of traditional and digital prepress equipment and techniques will be introduced. Customer needs, technical accuracy, prepress troubleshooting issues, timelines and proofing will be included. PREREQUISITES: Course 204-100 OR 201-100 - Design Concepts

## **201-107**

### **Graphic Design Professional Practices**

**Credits: 3.00**

This course introduces students to the workflow of graphic design, from the initial conceptualization of a project to the printed piece. Attention to customer needs, development of presentation materials, and cost estimates are discussed. Students will become familiar with graphic design, job titles and duties. Stress management and time management are incorporated into the course. Legal and ethical issues, as well as those involving copyrights and trademarks, are discussed. PREREQUISITES: Take 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning Complete course 204-140 OR 201-106 - Design, Publishing and Prepress

## **201-108**

### **Problems in Graphic Design, Advanced**

**Credits: 3.00**

Students will produce advanced level projects in graphic design. Various software applications will be integrated in the creation process. Emphasis will be placed on solving advanced visual problems, creating portfolio quality pieces, participating in classroom critiques and final production options and issues. Students will develop problem-solving techniques to guide them through the process of organizing a complete project, including research, marketing, conceptualization, full design development, file preparation, analysis of the project components, color (ink) selections, paper selection, photography, and various finishing techniques. Reproduction issues including timelines, budgets, ink properties, paper properties and design mechanics will be applied to individual projects. PREREQUISITES: Complete course 204-140 OR 201-106 - Design, Publishing and Prepress

## **201-109**

### **Design Concepts, Advanced**

**Credits: 4.00**

This course examines advanced concepts of graphic design page layout and focuses on the marketing, software, and workflow used in the design and publishing process. Students will use layout, illustration, and photomanipulation software at an advanced level to create portfolio quality projects. Color usage, scanning principles, file formats, importing of text and graphics will be reinforced. All projects will be properly prepared for commercial production. Students will integrate research, and marketing principles in their design strategies. Projects will be presented and critiqued through written and oral presentation processes. PREREQUISITES: Complete course 204-140 OR 201-106 - Design, Publishing and Prepress

## **201-110**

### **Applied Exit Strategies/Display Graphics**

**Credits: 3.00**

Students will focus on resume, portfolio development and interview practices. Career exploration, professional practices, networking will also be discussed. All aspects of this course will lend to the professional development of the individual student. In order to showcase and promote the accomplishments of the student, a graduate design display requirement will be met at the Annual Student Design Show. COREQUISITES: Course 204-109 OR 201-107 - Graphic Design Professional Practices

## **201-111**

### **Illustration, Advanced**

**Credits: 3.00**

This course will teach students the basics of using 3D software for design. Animation, modeling and storyboarding will be examined, as well as the technical aspects and vocabulary involved in mastering 3D software. 3D computer graphics will be compared to 2D. Practical applications for 3D software will be examined as they relate to graphic design, web design, and game design.

## **201-112**

### **Digital Photography/Advanced**

**Credits: 3.00**



Course focuses on advanced use of photomanipulation software including special effects and new applications. In addition, the basics of good photography and its use in the various areas of graphic design will be studied.

PREREQUISITES: Course 204-107 OR 201-102 - Digital Photography/ Introduction to

### **201-113**

#### **Advanced Web Page Design for Graphics**

**Credits: 3.00**

Students will build upon the knowledge learned from the prerequisite course. Emphasis will be placed on current webpage editors, while adding video and animation elements to their own website. The course will include current topics in web development. Principles of web design for development and posting of websites will be emphasized. PREREQUISITES: Course 204-116 OR 201-104 - Webpage Design for Graphic Designers

### **201-114**

#### **Business of Photography**

**Credits: 2.00**

This course deals with all aspects of running a photography business, including studio management, copyright law, career options, contracts, proposals, marketing and self-promotion. Student will create a digital portfolio and examine several successful photography businesses. History of photography from film to digital will be studied.

### **201-116**

#### **Studio Lighting and Tools**

**Credits: 2.00**

Students will examine lighting, drapes, reflectors and special studio photography tools, for a variety of subjects. Shutter and aperture settings will be explained. Commercial photography, portraiture, food photography and macro photography will be explored. Students will plan photo shoots and coordinate all aspects of a shoot.

### **201-117**

#### **Advanced Design Concepts**

**Credits: 4.00**

This course examines advanced concepts of graphic design, page layout, and focuses on the marketing, software, and workflow used in the design and publishing process. Students will use layout, illustration, and photomanipulation of text and graphics will be reinforced. All projects will be properly prepared for commercial production. Students will integrate research, and marketing principles in their design strategies. Projects will be presented and critiques through written and oral presentation processes. History and discussion of traditional and digital prepress equipment and techniques will be introduced. Customer needs, technical accuracy, prepress troubleshooting issues, timelines and proofing will be included.

### **201-118**

#### **Graphics for Gaming**

**Credits: 1.00**

This course is designed to introduce programming students to graphics and graphics creation. Specifically, the graphics used in computer games will be discussed.

**203-120**

**Field Photography**

**Credits: 2.00**

This course will explore the use of cameras, lenses and digital media as they apply to newsworthy photography as well as location and nature photography. Students will learn how to get good shots in fast paced environments like sporting events. Special tools used in field of photography will be examined. PREREQUISITES: Course 204-107 OR 201-102 - Digital Photography/ Introduction to with a minimum grade of C or TR;

**203-121**

**Studio Lighting and Tools**

**Credits: 2.00**

Students will examine lighting, drapes, reflectors and special studio photography tools, for a variety of subjects. Shutter and aperture settings will be explained. Commercial photography, portraiture, food photography and macro photography will be explored. Students will plan photo shoots and coordinate all aspects of a shoot. PREREQUISITES: Course 204-107 OR 201-102 - Digital Photography/ Introduction to with a minimum grade of C or TR;

**304-101**

**History of Furniture and Decorative Arts**

**Credits: 3.00**

Emphasizes the history of decorative arts from ancient times through the technological era especially concerning furnishings and interiors. Interior design careers, projects and markets are surveyed.

**304-102**

**Interior Design, Principles of**

**Credits: 3.00**

This course will provide the beginning college student with the fundamentals of interior design. Students will explore the elements and principles of art and design as they are applied to interior environments. The learner will also gain knowledge of basic concepts in the design process, human ecology, space planning, selecting finishes and furnishings, and design communications techniques.

**304-107**

**Internship for Interior Designers**

**Credits: 2.00**

Provides an opportunity to gain practical work experience through supervised internships at an approved job site to gain practical knowledge of the interior design skills learned in the classroom. PREREQUISITES: Take 304-116 - Kitchen and Bathroom Planning Minimum grade C,TR; Take 304-132 - Sales and Professional Practice for ID; Minimum grade C,TR; Take 304-154 - Interior Elements Building Construction; Minimum grade C,TR; Take 304-156 - Residential Design Studio 1; Minimum grade C,TR; COREQUISITES: Complete 304-130 - Commercial Design Studio

### **304-116**

#### **Kitchen and Bathroom Planning**

**Credits: 3.00**

Students will develop the skills of planning and remodeling kitchens and bathrooms through drawing methods using the National Kitchen and Bath Association (NKBA) standards. The course provides client-oriented design problems and includes planning using standard components and fixtures. PREREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Minimum grade C,TR; Take 801-136 - English Composition 1; Minimum grade C,TR; Take 304-129 - Visual Communication for Interior Design; Minimum grade C,TR; Take 304-137 - Advanced Architectural Drawing; Minimum grade C,TR; Take 304-156 - Residential Design Studio 1; Minimum grade C,TR; COREQUISITES: Complete course 304-138 OR 304-157 - Residential Design Studio 2

### **304-118**

#### **Art History**

**Credits: 3.00**

This course will introduce students to art history from the Prehistoric period to the present day from a western perspective. This course will provide an overview of the subject that will be general but comprehensive. It is designed to assist students in being able to identify prevalent movements, periods, and artists throughout this period. Students will learn how to approach art critically, as well as how to interpret and evaluate it, taking into consideration its formal, cultural, and historical contexts.

### **304-119**

#### **Portfolio Presentation**

**Credits: 1.00**

The learner gains knowledge and assistance in preparing a professional portfolio. The course culminates with a portfolio show presenting the students design achievement, body of work, and skills to the professional community.

### **304-122**

#### **Textiles**

**Credits: 3.00**

Students will study the selection, use and care of textile fabrics. All fibers, natural and synthetic, will be dealt with. The most recent technology in construction, finishes and color application will be emphasized.

### **304-128**

## **Basic Architectural Drawing**

**Credits: 3.00**

This course will introduce students to basic manual and computer-aided drawing for interior design. Students will learn how to properly use equipment and produce two-dimensional drawings. COREQUISITES: Course 801-136 - English Composition 1

### **304-129**

## **Visual Communication for Interior Design**

**Credits: 3.00**

Development of manual drawing communication skills at an intermediate level for two and three-dimensional representations. Students explore visual presentation techniques and the application of the techniques to interiors, exteriors, furnishings, accessories, and details. Drawings rendered during the various stages of the design process will be executed to reveal the connection between process and presentation. Rendering drawings and various methods of constructing presentations for professional graphic presentations are highlighted. PREREQUISITES: Take 304-128 - Basic Architectural Drawing Minimum grade C,TR; Take 304-102 - Interior Design, Principles of; Minimum grade C,TR;

### **304-130**

## **Commercial Design Studio**

**Credits: 4.00**

Contract design, also referred to as Commercial Interior Design, is the design of non-residential environments. This course will focus on programming, planning, design and specification of interior space as it relates to various types of commercial spaces such as; offices, health care facilities, hospitality industry, food and beverage facilities, and retail design. Students apply their knowledge of materials, finishes, furniture, lighting and building construction through all phases of the design process. In addition, students further develop CAD skills necessary to produce project documentation and presentations for a comprehensive commercial design problem. PREREQUISITES: Take 304-116 - Kitchen and Bathroom Planning Minimum grade C,TR; Take 304-132 - Sales and Professional Practice for ID; Minimum grade C,TR; Take 304-154 - Interior Elements Building Construction; Minimum grade C,TR; Take 304-156 - Residential Design Studio 1; Minimum grade C,TR; COREQUISITES: Complete course 304-107 - Internship for Interior Designers

### **304-132**

## **Sales and Professional Practice for ID**

**Credits: 3.00**

Covers essential interior design business practices and procedures, including business formations, fees, contracts, project management, business forms and record keeping. Professional work conduct and interior design sales techniques are also covered. PREREQUISITES: Complete course 304-156 - Residential Design Studio 1 with a minimum grade of C or TR;

### **304-133**

## **Sustainable Materials and Finishes**

**Credits: 3.00**

Focuses on identifying building materials to satisfy the design criteria. Students will learn appropriate selection of: materials, finishes, and products based on their properties, sustainability, performance criteria, installation methods, and maintenance requirements. Additionally insight will be gained in procedures within the construction industry from; organizational culture, to the interior designer's role, responsibilities and documentation of specifications.

**304-137****Advanced Architectural Drawing****Credits: 3.00**

This course will build on the Basic Architectural Drawing coursework and further develop student skills in computer-aided drawing techniques for interior design. Computer-aided three-dimensional modeling will also be introduced and explored as a method to communicate design. PREREQUISITES: Take 304-102 - Interior Design, Principles of Minimum grade C,TR; Take 304-128 - Basic Architectural Drawing Minimum grade C,TR;

**304-149****Kitchen and Bath Planning, Advanced****Credits: 3.00**

Through this studio, Kitchen and Bath Design students gain advanced approaches to their design solutions, including knowledge of NKBA Planning Guidelines for the kitchen, and NKBA Access Planning Guidelines used in universal design projects. Building upon skills learned in K&B Design, students improve their ability to develop and present a design concept and theme. In addition, a focus will be learning to produce professional working documents of advanced kitchen projects as they progress from inception to completion. PREREQUISITES: Course 304-116 - Kitchen and Bathroom Planning with a minimum grade of C or TR;

**304-150****Architectural History****Credits: 3.00**

This course is introductory and assumes no background in architecture or architectural history. It seeks to provide students with an introduction to basic foundations for studying architecture.

**304-151****Center for Sustainable Living: Practicum****Credits: 1.00**

With the creation of a 'green room' Interior Design students will apply what they have learned in 304-155 Principles of Interior Design and 304-133 Sustainable Materials and Finishes. Students will confirm that preliminary space plans and design concepts are safe, functional, aesthetically appropriate, and meet all public health, safety and welfare requirements, and sustainability guidelines. Students will be performing and learning all duties related to the installation of materials, finishes and products. The space will feature re-purposed furnishings and finishes that promote sustainable and green design. PREREQUISITES: Course 304-133 - Sustainable Materials and Finishes

## **304-154**

### **Interior Elements Building Construction**

**Credits: 2.00**

This course will introduce students to basic components of building construction, including structural components and mechanical systems. Students will learn basic structural principles applied to the building environment through a review of common building methods including timber frame, masonry, and steel construction for residential and commercial projects as applicable. Sustainable design and the health and welfare of occupants will be considered throughout. **PREREQUISITES:** Complete course 304-156 - Residential Design Studio 1 with a minimum grade of C or TR;

## **304-156**

### **Residential Design Studio 1**

**Credits: 3.00**

This course focuses on the problem-solving discipline of the design process and its application to residential design. Students develop concepts to achieve design goals and apply theoretical knowledge and technical skills to their design solutions as they work on a variety of professionally relevant interior design projects. Student will examine the elements of residential interiors through the study of human factors, codes, space planning guides with ADA and universal design, the selection and specification of; furniture, fixtures, equipment, comprehensive lighting solutions, and accessories in planning interior spaces. Projects include the steps of the design process, from programming through design finalization, for residential spaces such as single family homes, multi-unit residences and other specialized areas. Students will explore various problem solving methods, working in a design team, and presenting design solutions as if working with actual clients. **PREREQUISITES:** Take 304-102 - Interior Design, Principles of Minimum grade C,TR; Take 304-128 - Basic Architectural Drawing; Minimum grade C,TR; **COREQUISITES:** Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

## **304-157**

### **Residential Design Studio 2**

**Credits: 2.00**

Students demonstrate their accumulated skills through the resolution of comprehensive residential design projects. **PREREQUISITES:** Take 304-156 - Residential Design Studio 1; Minimum Grade C;

## **304-158**

### **Commercial Design Software**

**Credits: 1.00**

An introductory course providing students the opportunity to become familiar with intelligent, highly visual, and intuitive space-planning software that simplifies specifying and selling commercial design solutions. Upon completion of this course, students will be familiarized with creating and generating layouts, quotes, renderings, movies, installation drawings, and reconfigurations. This course will allow students to apply design solutions and execute projects more efficiently in their capstone course Commercial Design Studio. **COREQUISITES:** Take 304-157 - Residential Design Studio 2

**307-108****ECE: Early Language & Literacy****Credits: 3.00**

This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including; literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children's language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

**307-110****ECE: Soc S, Art, & Music****Credits: 3.00**

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

**307-112****ECE: STEM****Credits: 3.00**

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics. COREQUISITES: Complete 307-148 - ECE: Foundations of Early Childhood Education

**307-115****ECE: Infant Toddler Capstone****Credits: 3.00**

This course integrates the theory, practice and reflection of courses 1-3 in the Infant/Toddler Credential and requires demonstration of best practices. PREREQUISITES: Take 307-169 - ECE: Infant Toddler Group Care Take 307-195 - ECE: Family and Community Relationships;

**307-140****ECE: Behavior and Emotional Challenges****Credits: 3.00**

This course helps promote children's success by building relationships and creating supportive environments, and learning how to demonstrate positive social-emotional teaching strategies. Specific discipline and guidance strategies will be described. Individualized intensive interventions for developing behavior support plans as they relate to challenging behavior will be created and evaluated.

**307-141**

**ECE: Spec Health Care Needs****Credits: 3.00**

This course explores the frequently encountered specialized health care needs of young children with disabilities. PREREQUISITES: Course 307-187 - ECE: Children with Differing Abilities

**307-142****ECE: Inclusion Cred Capstone****Credits: 3.00**

This course is designed to enhance the students understanding of the impact a child with a disability has on the family system. Students will have the opportunity to participate with a child and his/her family in daily routines and community settings. PREREQUISITES: Course 307-187 - ECE: Children with Differing Abilities

**307-144****ECE: Administrative Seminar****Credits: 3.00**

This is the culminating experience in the Early Childhood Administrator /credential course sequence. Major individual projects are required with a focus on the integration of program aspects in developing strategic planning for change.

**307-148****ECE: Foundations of Early Childhood Education****Credits: 3.00**

This three credit course introduces you to the early childhood profession. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; investigate the history of early childhood education; summarize types of early childhood education settings; identify the components of a quality early childhood education program; summarize responsibilities of early childhood education professionals; and explore early childhood curriculum models.

**307-149****ECE: Child Care Operations Management****Credits: 3.00**

This course includes discussion and practical applications related to scheduling, staffing, facilities management, equipment acquisition and maintenance, record keeping, and communication.

**307-151****ECE: Infant & Toddler Development****Credits: 3.00**

In this three credit course, you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias



perspectives; analyze development of infants and toddlers (conception to three years); correlate prenatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine research-based models; and examine culturally and developmentally appropriate environments for infants and toddlers.

### **307-160**

#### **ECE: Field Experience 1**

**Credits: 3.00**

This three-credit introductory field experience course introduces the foundations of early childhood education under the guided supervision of supervising faculty and a mentor teacher in an early childhood setting working with children from birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training. This course includes 36 lecture hours plus 54 hours of field experience in an actual early childhood setting. COREQUISITES: Take 307-148 - ECE: Foundations of Early Childhood Education Take 307-167 - ECE: Health, Safety, & Nutrition Take 801-136 - English Composition 1

### **307-166**

#### **ECE: Curriculum Planning**

**Credits: 3.00**

This three credit course examines the components of curriculum planning in early childhood education. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; examine caregiving routines as curriculum; develop activity plans that promote child development and learning; develop unit plans that promote child development and learning; and analyze early childhood curriculum models. PREREQUISITES: Course 307-174 with a minimum grade of C or TR;

### **307-167**

#### **ECE: Health, Safety, & Nutrition**

**Credits: 3.00**

This three credit course examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; follow governmental regulations and professional standards as they apply to health, safety, and nutrition; provide a safe early childhood program; provide a healthy early childhood program; provide a nutritionally sound early childhood program; adhere to child abuse and neglect mandates; apply Sudden Infant Death Syndrome (SIDS) risk reduction strategies; and incorporate health, safety, and nutrition concepts into the children's curriculum.

### **307-169**

#### **ECE: Infant Toddler Group Care**

**Credits: 3.00**

This course focuses on caring for infants and toddlers in center based and family child care settings. Materials will cover program quality, philosophy, structure, environments, health and safety, and developmentally appropriate practice.

### **307-170**

#### **ECE: Field Experience 2**

**Credits: 3.00**

This 3-credit intermediate field experience course includes assisting the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play for children from birth to age 8. This course requires 18 hours of lecture and 144 hours of field experience in an actual early education setting. PREREQUISITES: Take 307-160 - ECE: Field Experience 1; Minimum Grade of C COREQUISITES: Take 307-179 - ECE: Child Development

### **307-179**

#### **ECE: Child Development**

**Credits: 3.00**

This three credit course examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children age three through eight; summarize the methods and designs of child development research; and analyze the role of heredity and environment.

### **307-181**

#### **ECE: Child Care Operations Management**

**Credits: 3.00**

This is course two in the Administrator Credential. This course includes discussion and practical applications related to early care and education program scheduling, staffing, facilities management, equipment acquisition and maintenance, record keeping and communication.

### **307-182**

#### **ECE: Child Care Financial Management**

**Credits: 3.00**

This course includes principles and practices in budget planning, preparation and fiscal management including hands-on preparation with program applications.

### **307-184**

#### **ECE: Child Care External Environment**

**Credits: 3.00**

Review of external factors which affect the operation of early care and education programs including determination of community child care needs, marketing, laws and regulations, working with government and community agencies, political and social issues and trends.

**307-185****ECE: Child Care Best Practices****Credits: 3.00**

Establishing and maintaining quality programs based on professional standards and the best available information on child growth and development and family friendly environment/services. Coursework includes a review of the literature and research studies, licensing laws and regulations, criteria for staff credentials (CDA) and the accreditation of programs by the National Academy of Early Childhood Programs and funding requirements and performance standards such as those for Head Start.

**307-186****ECE: Child Care Administrator Capstone****Credits: 3.00**

This is the culminating experience in the Administrator Credential course sequence. Major individual projects are required with a focus on the integration of program aspects in developing strategic planning for change. Prerequisites: Courses 1 through 5 of the Administrator Credential course sequence. COREQUISITES: Complete courses 307-204 - ECE: Child Care Admin and Supervision, 307-181 - ECE: Child Care Operations Management, 307-182 - ECE: Child Care Financial Management, 307-184 - ECE: Child Care External Environment, and 307-185 - ECE: Child Care Best Practices

**307-187****ECE: Children with Differing Abilities****Credits: 3.00**

This three credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; work collaboratively with community and professional resources; utilize an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; and cultivate partnerships with families who have children with developmental differences.

**307-188****ECE: Guiding Children's Behavior****Credits: 3.00**

This three credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; summarize early childhood guidance principles; analyze factors that affect the behavior of children; practice positive guidance strategies; develop guidance strategies to meet individual needs; and create a guidance philosophy.

**307-190**

### **ECE: Field Experience 3**

**Credits: 3.00**

This 3-credit advanced field experience course focuses on supporting young children's development from birth to age 8 through observation, assessment, and implementation of developmentally appropriate teaching strategies. This course requires 18 hours of lecture and 144 hours of field experience in an actual early childhood setting. PREREQUISITES: Take 307-170 - ECE: Field Experience 2 Take 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning COREQUISITES: Take 307-151 - ECE: Infant & Toddler Development

### **307-194**

#### **ECE: Math, Science, & Social Studies**

**Credits: 3.00**

This three credit course will focus on beginning level curriculum development in the specific areas of math, science, and social studies. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; develop activity plans that promote child development and learning; create developmentally appropriate science activities; create developmentally appropriate math activities; and create developmentally appropriate social studies activities.

### **307-195**

#### **ECE: Family and Community Relationships**

**Credits: 3.00**

In this three credit course, you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity and anti-bias perspectives when working with families and community; analyze contemporary family patterns, trends, and relationships; utilize effective communication strategies; establish ongoing relationships with families; advocate for children and families; and work collaboratively with community resources.

### **307-198**

#### **ECE: Administering an Early Childhood Education Program**

**Credits: 3.00**

This three credit course focuses on the administration of an early childhood education program. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze the components of an ECE facility; design an ECE program; analyze the aspects of personnel supervision; outline financial components of an ECE program; apply laws and regulations related to an ECE facility; and advocate for the early childhood profession.

### **307-204**

#### **ECE: Child Care Admin and Supervision**

**Credits: 3.00**

This course provides an overview of roles and responsibilities of directors, coordinators, supervisors and other administrators in early childhood programs.

### **307-210**

#### **ECE: Field Experience 4**

**Credits: 3.00**

This final 3-credit pre-professional field experience course focuses on demonstrating a comprehensive understanding of children birth to age 8, and families. An emphasis is on practicing the lead teacher role to design, implement and evaluate a connected unit of learning experiences. This course requires 18 hours of lecture and 144 hours of field experience in an actual early childhood setting. PREREQUISITES: Take 307-190 - ECE: Field Experience 3; Minimum Grade of C; Take 307-110 - ECE: Soc S, Art, & Music; Minimum Grade of C; Take 307-108 - ECE: Early Language & Literacy; Minimum Grade of C; Take 307-112 - ECE: STEM; Minimum Grade of C;

### **316-105**

#### **International Buffets**

**Credits: 4.00**

Organization and service of buffets are stressed. Includes menu planning, cost control and dining room set up. Emphasis is placed on preparation and cooking of international cuisine. PREREQUISITES: Take 316-156 - Culinary Basics 3 OR 316-132 - Culinary Skills II minimum Grade of C

### **316-109**

#### **Short Order Deli**

**Credits: 3.00**

This course provides learners with the opportunity to practice short order food preparation including: frying, grilling, sandwich making, salad, and dessert preparation. Menu planning and cost analysis is presented. PREREQUISITES: Take 316-152 - Culinary Basics 2 OR 316-131 - Culinary Skills I; Minimum Grade C

### **316-125**

#### **Fine Dining**

**Credits: 4.00**

Training in the duties of a waiter is given including table setting, taking orders and placing in the kitchen and clearing the table. Students also learn how to set up foods in the service line, serve hot and cold foods, prepare beverages and keep a flow of foods in the service line. PREREQUISITES: Take 316-156 - Culinary Basics 3 OR 316-132 - Culinary Skills II; Minimum Grade C Take 316-109 - Short Order Deli; Minimum Grade C Take 316-153 - Garde Manger/Cold Kitchen OR 316-134 - Garde Manger; Minimum Grade C Take 316-154 - Advanced Baking; Minimum Grade C Take 804-135 - Quantitative Reasoning Take 801-136 - English Composition 1

### **316-130**

#### **Nutrition**

**Credits: 2.00**

Basic principles and current nutritional concepts are explored with emphasis on meeting the nutritional needs of various individuals. PREREQUISITES: Take 316-170 - Sanitation and Hygiene; Minimum Grade C

**316-131**

**Culinary Skills I**

**Credits: 4.00**

Practical experience in basic food preparation is emphasized by using fundamental concepts and developing skills and techniques used in professional cookery. Luncheon items will be prepared and served by students for cafeteria patrons during the final weeks of this course. COREQUISITES: Take 316-170 - Sanitation and Hygiene

**316-132**

**Culinary Skills II**

**Credits: 4.00**

Students reinforce knowledge and skills learned in Culinary Skills I to begin building on that knowledge. Includes cooking luncheon menus, garnishing, plate presentation and kitchen management. PREREQUISITES: Course 316-131 - Culinary Skills I COREQUISITES: Course 801-136 - English Composition 1 Take 804-135 - Quantitative Reasoning

**316-133**

**Menu Planning Purchasing Cost Control**

**Credits: 3.00**

Menu planning as affected by acceptability, cost, labor requirements, available space and equipment. Principles of purchasing, receiving, issuing and managing food products, restaurant wares and equipment. Study and utilization of several systems used in the food service business to provide management information in food and beverage cost.

**316-134**

**Garde Manger**

**Credits: 1.00**

Preparation of decorative meats and centerpieces and decorating and arranging food platters for buffet presentation.

**316-135**

**Catering/Banquets**

**Credits: 2.00**

Practical experience in organizing, menu planning, room set-up, preparation, cooking and serving banquets of various sizes. PREREQUISITES: Course 316-132 - Culinary Skills II

### **316-138**

#### **Basic Baking**

**Credits: 2.00**

This course presents basic baking techniques and procedures related to food service operations. Use and care of equipment are presented. Sanitation and hygiene considerations are reviewed. COREQUISITES: Take 316-170 - Sanitation and Hygiene Take 316-131 - Culinary Skills I

### **316-139**

#### **Convenience Baking**

**Credits: 1.00**

This course presents convenience baking techniques and procedures related to food service operations. Use and care of equipment are presented. Sanitation and hygiene considerations are reviewed. COREQUISITES: Take 316-170 - Sanitation and Hygiene Take 316-131 - Culinary Skills I

### **316-140**

#### **Basic Baking Techniques**

**Credits: 3.00**

This course presents basic baking techniques and convenience baking techniques and procedures related to food service operations. Use and care of equipment are presented. Sanitation and hygiene considerations are reviewed.

### **316-141**

#### **Meat Fabrication and Identification 1**

**Credits: 3.00**

In this course, learners explore the muscle and bone structure of beef, pork, and chicken and examine fabrication methods for sub-primal cuts for each animal. Learners analyze the grading systems used to evaluate beef, pork, and chicken. They investigate sources of food, comparing community and small farming raising practices. Upon completion of the course, learners will be able to explain national meat identification systems and the effect raising practices has on the final product.

### **316-142**

#### **Meat Fabrication and Identification 2**

**Credits: 3.00**

In this course, learners process sub-primal cuts of beef, pork, and chicken into foodservice cuts. Learners practice knife skills and identify the steps of processing, curing, and preserving. They analyze proper cooking techniques for various cuts of meat and selling methods in wholesale, retail, and restaurant operations. Upon completion of the course, learners will be able to explain how to cut and process meat for use in a foodservice establishment. PREREQUISITES: Take 316-141 - Meat Fabrication and Identification 1

### **316-143**

## **Hazard Analysis Critical Control Point**

**Credits: 2.00**

In this course, learners examine Hazard Analysis Critical Control Point (HACCP) plans. They explore how to create and interpret usable HACCP plans. Upon completion of the course, learners will be able to develop and implement an effective HACCP plan.

### **316-150**

#### **Culinary Basics 1**

**Credits: 4.00**

In this course, learners explore the basic scientific principles of food preparation and knife handling skills. They examine the preparation of stocks, soups, sauces, vegetables, and starches and prepare basic foods. Learners explore the relationship between planning and organization and work techniques. Upon completion of the course, learners will be able to demonstrate basic knife handling skills and cooking techniques, and explain the significance of standards of finished produces and the conversation of nutritive values. COREQUISITES: Take 316-170 - Sanitation and Hygiene

### **316-151**

#### **Basic Baking**

**Credits: 4.00**

In this course, learners explore the fundamental concepts of baking. Through hands-on application, they examine basic skills and techniques using production equipment. Learners prepare a variety of cookies, cakes, breads, pies, and custards. They explore the relationship between planning and organization and work techniques. Upon completion of the course, learners will be able to explain the characteristics and functions of baking ingredients and to prepare a variety of standard baked products. COREQUISITES: Take 316-170 - Sanitation and Hygiene

### **316-152**

#### **Culinary Basics 2**

**Credits: 4.00**

In this course, learners explore the basic scientific principles of protein preparation and enhance their knife skills. They examine the preparation of meats, poultry, fish, shellfish, and eggs, and prepare basic foods. Learners continue to explore the relationship between planning and organization and work techniques, while growing their confidence. Upon completion of the course, learners will be able to demonstrate basic knife handling skills and cooking techniques, and explain the significance of standards of finished produces and the conversation of nutritive values. PREREQUISITES: Take 316-170 - Sanitation and Hygiene; Minimum Grade C Take 316-150 - Culinary Basics 1 or 316-131 - Culinary Skills I; Minimum Grade C

### **316-153**

#### **Garde Manger/Cold Kitchen**

**Credits: 3.00**



In this course, learners examine cold food preparation techniques. They explore the principles of curing, pickling, and sausage-making, and they prepare and creatively present a variety of salads and dressings, condiments, hors d'oeuvres, and cheeses. Learners examine the relationship between planning and organization and work techniques. Upon completion of the course, learners will be able to explain the effective design and presentation of cold foods and to produce a cold food display and present it creatively.

PREREQUISITES: Take 316-150 - Culinary Basics 1 OR 316-131 - Culinary Skills I; Minimum Grade C Take 316-170 - Sanitation and Hygiene Minimum Grade C

### **316-154**

#### **Advanced Baking**

**Credits: 3.00**

In this course, learners examine advanced baking techniques. They develop enhanced skills required to produce a variety of pastry doughs and intricate pastries. Learners analyze the relationship between planning and organization and work techniques. Upon completion of the course, learners will be able to explain the standards of the finished products from concept and design to packaging and to display and create doughs and pastries that meet professional standards for taste and appearance. PREREQUISITES: Take 316-151 - Basic Baking OR 316-140 - Basic Baking Techniques; Minimum Grade C Take 316-170 - Sanitation and Hygiene Minimum Grade C

### **316-155**

#### **Culinary Internship**

**Credits: 2.00**

In this course, learners engage in a student-centered, practical experience designed to help them relate their academic knowledge to occupational skills and requirements. Using a hands-on approach, learners work under the guidance of an industry professional to expand their career knowledge and experiential confidence. Upon completion of the course, learners will be able to execute industry skills on a repetitive basis with enhanced knowledge, speed, organization, and confidence. PREREQUISITES: Take 316-152 - Culinary Basics 2 OR 316-131 - Culinary Skills I; Minimum Grade C Take 804-135 - Quantitative Reasoning; COREQUISITES: Take 801-136 - English Composition 1

### **316-156**

#### **Culinary Basics 3**

**Credits: 4.00**

In this course, learners explore food preparation as it applies to restaurant service. They examine menu planning and cost analysis of menu items. Learners focus on the relationship between planning and organization and work techniques. Upon completion of the course, learners will be create and execute basic menus to serve the public, while utilizing correct technique and sanitation principles. PREREQUISITES: Take 316-152 - Culinary Basics 2 OR 316-131 - Culinary Skills I; Minimum Grade C

### **316-157**

#### **Food Service Operations**

**Credits: 3.00**

In this course, learners explore the practical skills and knowledge required for effective food and beverage service operation in front-of-the-house foodservice environments. Learners examine organizational systems and the elements of planning, staffing, and leadership, and they model commitment to a safe and sanitary environment through their consistent execution of food safety principles. Upon completion of the course, learners will have earned ServSafe Manager certification and will be able to demonstrate skills required for flawless service of foods and beverages. COREQUISITES: Take 316-125 - Fine Dining

### **316-170**

#### **Sanitation and Hygiene**

**Credits: 1.00**

A study of sanitary conditions and the methods used in applying the measure effectively. Includes organisms responsible for food contamination, spoilage, and the diseases transmitted by food. Personal health habits necessary for food service personnel and the laws regarding sanitary practices are interpreted.

### **316-190**

#### **Food Service Supervision**

**Credits: 3.00**

How to fulfill a leadership role; how to organize resources of people, time, equipment and jobs; how to motivate people and communicate effectively with subordinates; how to select, interview and appraise employees; how to handle problems of discipline, morale and grievances.

### **401-501**

#### **Introduction to HVAC**

**Credits: 1.00**

This introductory course introduces the student to the terminology used; the basic math concepts relevant to the HVAC industry and basic electrical concepts are covered.

### **401-502**

#### **Tube and Piping Skills**

**Credits: 1.00**

This course introduces the mechanical skills necessary to identify, select, and construct plastic, copper and ferrous tubing and pipe to industry and Code standards.

### **401-506**

#### **Forced Air Heating Intro to**

**Credits: 1.00**

The theory of heating using air as the medium is introduced. The common components of each fuel are covered and how efficiency changes affects the heating cycle. The importance of proper venting and vent design and basic troubleshooting are introduced.

## **401-508**

### **Cooling Fundamentals**

**Credits: 1.00**

This course introduces the student to the concepts of heat transfer, the refrigeration cycle and use of the P/T chart. Evacuation, recovery, leak detection and basic troubleshooting are covered.

## **401-509**

### **Troubleshooting HVAC**

**Credits: 1.00**

Expanded troubleshooting of gas, electric furnaces and central air forced air systems are covered in detail.

## **401-560**

### **Comm/Ind Refrigeration & Alt. Systems**

**Credits: 1.00**

This week will deepen the student's understanding of the complex controls and operation of large scale refrigeration equipment. The week will also introduce the student to emerging technologies that have not been used in large scale to date. Geothermal, radiant, waste heat, and other alternatives are explored.

## **401-561**

### **Heating & Cooling Design**

**Credits: 1.00**

Use of construction drawings, the fundamentals of heat loss/gain, equipment selection, and the fundamentals of leadership are covered in the student's final week.

## **401-562**

### **Commercial Concepts, Advanced**

**Credits: 1.00**

This week broadens the knowledge base for the fourth year student. Topics include the effects of water quality on cooling towers, boilers and chillers, proper startup/shutdown of physical plants, and how new energy conservation equipment is being used in HVAC.

## **401-563**

### **IAQ/DDC Controls & Air Balancing**

**Credits: 1.00**

This week covers the factors that affect IAQ, the use of automated controls in our energy management, and the effects of proper airflow on comfort in structures.

## **401-564**

## **Heat Pumps**

**Credits: 1.00**

This week moves the student from the introduction of the fundamentals of heat pump technology to component identification and troubleshooting of the various kinds of heat pumps. The student is also introduced to customer relation principles as they move towards their last year.

### **401-565**

## **Refrigerant; Advanced Topics**

**Credits: 1.00**

This week covers troubleshooting techniques a student needs when working on A/C and refrigeration systems. This week also introduces the student to the emerging VRF, ductless and zoned systems that have entered into the marketplace.

### **401-566**

## **Troubleshooting HVAC Systems**

**Credits: 1.00**

This intense week contains concentrated review of troubleshooting techniques for fuel fired appliances, motors, and controls. The correct use of installation fasteners, terminal connectors, and hardware are also covered.

### **401-567**

## **Hydronics & Steam Systems**

**Credits: 1.00**

This week expands on the student's general knowledge of hydronics by covering individual components, their function, and operation. The student is then introduced to the operation of unique controls of steam plants.

### **401-568**

## **Venting & Introduction to Hydronics**

**Credits: 1.00**

This week is split between the complex requirements for venting fuel burning appliances and introducing the student to the basics of hydronic heating concepts and the components used.

### **401-569**

## **Alternating Current and PM Basics**

**Credits: 1.00**

This week expands on the student's basic understanding of AC electricity by covering motors, transformers and other loads found in HVAC equipment. This week also covers basic preventative maintenance procedures for typical HVAC equipment.

## **401-570**

### **Ductwork Construction & Airside Basics**

**Credits: 1.00**

This week covers the selection and fabrication of common materials used in ductwork applications and the uses of those delivery systems in commercial buildings.

## **401-571**

### **Mechanical Refrigeration Circuit**

**Credits: 1.00**

This comprehensive week focuses on the major working components of a mechanical refrigeration device. Refrigerant oils, types of refrigerants, leak detection, recovery and proper charging techniques are covered in depth.

## **402-120**

### **Aeronautical Decision Making**

**Credits: 2.00**

The student will apply theories and procedures learned in Aviation Safety in simulated flight conditions. Analysis and evaluation of student actions, individual and as a flight crew, will be completed for each flight scenario. PREREQUISITES: Course 402-173 - Professional Piloting II with minimum grade C or TR COREQUISITES: Course 402-138 - Aero Science Aviation Safety

## **402-122**

### **Aircraft Systems-Advanced**

**Credits: 3.00**

This lecture based course covers the principles of turbine engine theory and operation. Turbine aircraft systems are studied, including pressurization, anti and de-ice systems, pneumatic and hydraulic systems and aircraft control systems. Advanced electronic and navigation systems are learned. Low and high performance aircraft structures are evaluated and compared. FAR's pertaining to advanced aircraft are learned and applied to a daily flight routine. PREREQUISITES: Course 402-139 - Aero Science Engine/ Structures/ Systems

## **402-123**

### **Aircraft Systems Advanced**

**Credits: 2.00**

This lecture based course covers the principles of turbine engine theory and operation. Turbine aircraft systems are studied, including pressurization, anti and de-ice systems, pneumatic and hydraulic systems and aircraft control systems. Advanced electronic and navigation systems are learned. FAR's pertaining to advanced aircraft are learned and applied to a daily flight routine. PREREQUISITES: Complete 402-139 - Aero Science Engine/ Structures/ Systems minimum grade C;

## **402-129**

## **Aviation/Introduction**

**Credits: 3.00**

An introductory aviation ground course designed to prepare the student for the FAA Private Pilot Airplane written examination.

### **402-131**

#### **Aero Science Fundamentals of Instruction**

**Credits: 2.00**

An advanced aviation ground course designed to prepare the student for the FAA Fundamentals of Instruction written examination. PREREQUISITES: Course 402-133 - Aero Science Commercial minimum grade C or TR;

### **402-133**

#### **Aero Science Commercial**

**Credits: 3.00**

An advanced aviation ground course designed to prepare the student for the FAA Commercial Pilot Airplane written examination. PREREQUISITES: Course 402-140 - Flight Private Pilot OR 402-129 - Aviation/Introduction with a minimum grade of C or TR;

### **402-134**

#### **Aero Science Certified Flight Instructor Airplane**

**Credits: 2.00**

An advanced aviation ground course designed to prepare the student for the FAA Airplane Flight Instructor written examination. COREQUISITES: Course 402-145 - Flight/Certified Flight Instructor Airplane

### **402-135**

#### **Aero Science Aerophysics/ Aerodynamics**

**Credits: 3.00**

Principles of physics as applied to the flight topics of velocity and acceleration and application to take-off and landing performance. Lift, gravity, thrust and drag relationships in accelerated and unaccelerated flight are included. PREREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Take 801-136 - English Composition 1

### **402-136**

#### **Aero Science Aviation Weather**

**Credits: 3.00**

Covers basic concepts of aviation meteorology including temperature, pressure, moisture, stability, clouds, air masses, fronts, thunderstorms, icing and fog. Analysis and use of weather data for flight planning and safe flying and interpretation of U.S. Weather Bureau maps, reports and forecast are discussed. COREQUISITES: Course 402-129 - Aviation/Introduction

## **402-137**

### **Aero Science Instrument**

**Credits: 3.00**

An advanced aviation ground course designed to prepare a student for the FAA Instrument Airplane rating written examination. PREREQUISITES: Take 402-129 - Aviation/Introduction

## **402-138**

### **Aero Science Aviation Safety**

**Credits: 3.00**

This course will develop the student's awareness and understanding of the safe, legal, and efficient operation of an aircraft in the modern aviation environment. This will be accomplished through the study of specific listed topics, NTSB reports, and presentation by aviation professionals.

## **402-139**

### **Aero Science Engine/ Structures/ Systems**

**Credits: 3.00**

Principles of aircraft engine theory and operation including construction, lubrication, carburetion, ignition, supercharging and propellers. Principles of aircraft structures including basic stresses, types of construction, advantage of each type and an overview of FAA repair procedures.

## **402-140**

### **Flight Private Pilot**

**Credits: 3.00**

Introduces the student to flight. Develops the necessary skills and knowledge to solo and prepare for the private pilot flight test. COREQUISITES: Course 402-129 - Aviation/Introduction

## **402-145**

### **Flight/Certified Flight Instructor Airplane**

**Credits: 2.00**

Prepares the commercial rated pilot for the FAA flight instructor airplane certificate. PREREQUISITES: Course 402-177 - Professional Piloting IV with minimum grade C or TR COREQUISITES: Take 402-134 - Aero Science Certified Flight Instructor Airplane Take 402-131 - Aero Science Fundamentals of Instruction

## **402-146**

### **Flight Certified Instructor Instrument**

**Credits: 1.00**

Prepares the CFI for the addition of an instrument instructor rating to the flight instructor certificate. PREREQUISITES: Course 402-145 - Flight/Certified Flight Instructor Airplane with minimum grade C or TR

## **402-166**

### **Aeronautical Skills Development**

**Credits: 1.00**

This flight course will prepare the student for the completion of an FAA certificate or rating.

## **402-170**

### **Professional Piloting I**

**Credits: 3.00**

This is the first in a series of four courses approved as an FAA Part 141 combined commercial instrument certification course. This course will focus on instrument flying skills. Additionally, the student will receive experience operating a multi-engine aircraft. PREREQUISITES: Complete course 402-140 - Flight Private Pilot OR 402-180 - Private Pilot III with minimum grade of C COREQUISITES: Complete 402-137 - Aero Science Instrument

## **402-173**

### **Professional Piloting II**

**Credits: 2.00**

In this course, students with existing private pilot certification develop instrument skills. This course is approved as an FAA Part 141 Instrument certification course. This course will focus on the addition of an instrument rating to the student's existing private pilot certificate. Flight instruction will be conducted in a single-engine aircraft. Upon completion of the course under Part 141, students will receive an endorsement for the FAA Instrument Airplane Practical test. COREQUISITES: Complete course 402-137 - Aero Science Instrument

## **402-175**

### **Professional Piloting III**

**Credits: 2.00**

In this course, students participate in the second of three flight courses approved for the FAA Part 141 combined commercial/instrument certification. Upon completion of this course under part 141, students will have met the cross country aeronautical experience requirements for our FAA Part 141 approved combined commercial/instrument certification course. PREREQUISITES: Course 402-173 - Professional Piloting II with minimum grade C COREQUISITES: Course 402-133 - Aero Science Commercial

## **402-177**

### **Professional Piloting IV**

**Credits: 2.00**

In this course, students participate in the third of three flight courses approved for FAA Part 141 combined commercial/ instrument certification. Students focus on flight training to acquire skills necessary to meet the requirements of the FAA Commercial Pilot Certification. Upon completion of the course under Part 141, students will receive an endorsement for the FAA Commercial Pilot Airplane Practical test. PREREQUISITES:



Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Take 801-136 - English Composition 1 COREQUISITES: Course 402-175 - Professional Piloting III

### **402-178**

#### **Private Pilot I**

**Credits: 2.00**

In this course, learners will build the foundational skills needed to perform a solo flight in a single-engine aircraft. Learners develop skills including preflight planning and inspection, airport and traffic pattern operations, aircraft control including takeoffs, landings, stalls, and applied aerodynamics. Upon completion of this course, learners will have acquired a minimum set of skills to safely operate an airplane from preflight through engine start, taxi, takeoff, flight to the practice area, return from the practice area, entry to the traffic pattern, landing, shutdown and securing the aircraft. PREREQUISITES: Take 402-136 - Aero Science Aviation Weather; Minimum Grade C Take 402-129 - Aviation/Introduction; Minimum Grade C; COREQUISITES: Take 402-181 - Private Pilot Theory and Application I

### **402-179**

#### **Private Pilot II**

**Credits: 1.00**

In this course, learners build on basic aircraft operation and control skills to navigate the airplane by visual references and radio navigation aids and at night. Upon completion of this course, learners will be able to plan and execute pilotage, dead reckoning and night flights, complete and maintain a navigation log, and to safely fly solely by reference to the instruments. PREREQUISITES: Take 402-178 - Private Pilot I; Minimum Grade C COREQUISITES: Take 402-129 - Aviation/Introduction

### **402-180**

#### **Private Pilot III**

**Credits: 1.00**

In this course, learners apply aeronautical knowledge and practice the aeronautical skills of maneuvering and cross-country flight needed to meet the minimum standards required to qualify for a private pilot certificate. Upon completion of this course, learners will be able to demonstrate the knowledge, skill, and risk management requirements and will receive an endorsement for an FAA Private Pilot Practical Exam. PREREQUISITES: Take 402-179 - Private Pilot II; Minimum Grade C COREQUISITES: Take 402-129 - Aviation/Introduction

### **402-181**

#### **Private Pilot Theory and Application I**

**Credits: 1.00**

In this course, learners will apply pre-solo level private pilot ground knowledge to actual and simulated scenarios presented by the instructor. Upon completion of this course, learners will have demonstrated the ability to apply private pilot aerodynamics, aircraft systems and instruments, regulations, weather, and airport operations knowledge of scenarios presented by an evaluator in oral and practical examination settings.

PREREQUISITES: Take 402-129 - Aviation/Introduction; Minimum Grade C+ Take 402-136 - Aero Science Aviation Weather; Minimum Grade C+ COREQUISITES: Take 402-178 - Private Pilot I

#### **402-182**

##### **Private Pilot Theory and Application II**

**Credits: 1.00**

In this course, learners will apply private pilot ground knowledge to actual and simulated scenarios presented by the instructor. Upon completion of this course, learners will have demonstrated the ability to apply private pilot aerodynamics, aircraft systems and instruments, regulations, weather, airport operations, navigation, and human factors knowledge to scenarios presented by an evaluator in oral and practical examination settings.

PREREQUISITES: Take 402-178 - Private Pilot I; Minimum Grade C Take 402-181 - Private Pilot Theory and Application I; Minimum Grade C

#### **402-184**

##### **Commercial I Multiengine Introduction**

**Credits: 1.00**

In this course, learners will build the foundational skills needed to perform basic operations in a multiengine aircraft. Learners develop skills including preflight planning and inspection, aircraft control including takeoffs, landings, stalls, applied aerodynamics and emergency operations. Upon completion of this course, learners will have accrued 10.5 (ten and one-half) multiengine hours, 3 (three) hours in an advanced aviation training device and have acquired the minimum set of skills necessary to safely operate a multiengine airplane from preflight through engine start, taxi, takeoff, normal flight maneuvers and emergencies to include single-engine operations, landing, shutdown and securing the aircraft. PREREQUISITES: Take 402-180 - Private Pilot III; Minimum Grade C

#### **402-185**

##### **Commercial II Instrument Procedures I**

**Credits: 1.00**

In this course, learners will build the foundational skills needed to perform basic operations in the National Airspace System under Instrument Flight Rules. Learners develop skills including instrument takeoffs, precise airplane attitude control solely by reference to the airplane instruments, flight at minimum controllable airspeed, stalls, steep turns, unusual attitudes, partial panel operations, radio navigation, cross-country planning and holding procedures. Upon completion of this course, learners will have accrued 17.5 (seventeen and one-half) advanced aviation training device hours and have acquired the minimum set of skills necessary to properly perform takeoffs, basic flight maneuvers, stalls, unusual attitudes, cross-country flight planning and holding procedures in the simulated IFR environment. PREREQUISITES: Take 402-184 - Commercial I Multiengine Introduction; Minimum Grade C COREQUISITES: Take 402-137 - Aero Science Instrument

#### **402-186**

##### **Commercial III Instrument Procedures II**

**Credits: 1.00**

In this course, learners will build the advanced skills needed to perform complex operations in the National Airspace System under Instrument Flight Rules. Learners develop skills including precision and non-precision approaches and cross-country flight in the National Airspace Space system under Instrument Flight Rules. Upon completion of this course, learners will have accrued 11 (eleven) advanced aviation training device hours and have acquired the minimum set of skills necessary to properly instrument approach procedures and cross-country flight in the simulated IFR environment. PREREQUISITES: Take 402-185 - Commercial II Instrument Procedures I; Minimum Grade C COREQUISITES: Take 402-137 - Aero Science Instrument

#### **402-188**

##### **Instrument Procedures I**

**Credits: 1.00**

In this course, learners will build the foundational skills needed to perform basic operations in a single-engine aircraft in the National Airspace System under Instrument Flight Rules. Learners develop skills including instrument takeoffs, precise airplane attitude control solely by reference to the airplane instruments, flight at minimum controllable airspeed, stalls, steep turns, unusual attitudes, partial panel operations, radio navigation, cross-country planning, and holding procedures in a single-engine aircraft. Upon completion of this course, learners will have accrued 15 (fifteen) hours in a single-engine aircraft, 4 (four) hours in an advanced aviation training device, and have acquired the minimum set of skills necessary to properly perform takeoffs, basic flight maneuvers, stalls, unusual attitudes, cross-country flight planning and holding procedures in the IFR environment in a single-engine aircraft. PREREQUISITES: Take 402-137- Aero Science Instrument; Minimum Grade C Take 402-186 - Commercial III Instrument Procedures II; Minimum Grade C COREQUISITES: Take 402-190 - Instrument Theory/Application;

#### **402-189**

##### **Instrument Procedures II**

**Credits: 1.00**

In this course, learners will build the advanced skills needed to perform complex operations in the National Airspace System under Instrument Flight Rules in a single-engine aircraft. Learners develop skills including precision and non-precision approaches and cross-country flight in the National Airspace Space system under Instrument Flight Rules in a single-engine aircraft. Upon completion of this course, learners will have accrued 25 (twenty-five) hours in a single-engine aircraft and have acquired and demonstrated the minimum set of skills necessary to qualify for an endorsement for the Federal Aviation Administration (FAA) Instrument Rating Practical Examination. PREREQUISITES: Take 402-189 - Instrument Procedures II; Minimum Grade C COREQUISITES: Take 402-190 - Instrument Theory/Application

#### **402-190**

##### **Instrument Theory/Application**

**Credits: 2.00**

In this course, learners will apply instrument rating ground knowledge to actual and simulated scenarios presented by the instructor. Upon completion of this course, learners will have demonstrated the ability to apply instrument procedures, aerodynamics, aircraft systems and instruments, regulations, weather, airport operations, navigation and human factors knowledge to scenarios presented by an evaluator in oral and

practical examination settings. PREREQUISITES: Take 402-186 - Commercial III Instrument Procedures II; Minimum Grade C

#### **402-192**

##### **Commercial IV Cross Country**

**Credits: 2.00**

In this course, learners will apply pre-flight planning strategies while planning and executing cross-country flights in multi-engine and single-engine aircraft. The course includes a combination of dual instruction and solo practice. Upon completion of this course, learners will have accrued 26 (twenty-six) hours in a single-engine aircraft, 22 (twenty-two) hours of time in a multi-engine aircraft, and 3 (three) hours in an advanced aviation training device. Learners will demonstrate the minimum set of skills necessary to properly perform cross-country navigation, planning, weather interpretation, and decision-making. PREREQUISITES: Take 402-189 - Instrument Procedures II; Minimum Grade C COREQUISITES: Take 402-193 - Commercial V Basic Maneuvers

#### **402-193**

##### **Commercial V Basic Maneuvers**

**Credits: 1.00**

In this course, learners will be introduced to the required Commercial Pilot maneuvers in a single-engine aircraft. The course includes a combination of dual instruction and solo practice. Upon completion of this course, learners will have accrued 23 (twenty-three) hours in a single engine aircraft and 4.5 (four and a half) hours of time in the advanced aviation training device. Learners will demonstrate the minimum set of skills necessary to properly perform Commercial Airplane Single Engine Land flight maneuvers, performance takeoffs and landings, stalls in a single-engine aircraft. COREQUISITES: Take 402-192 - Commercial IV Cross Country

#### **402-194**

##### **Commercial VI Advanced Maneuvers**

**Credits: 1.00**

In this course, learners will build the advanced skills needed to perform complex operations in the single and multi engine aircraft. This course includes a combination of dual instruction and solo practice. Upon completion of this course, Learners will have accrued 8 (eight) hours of flight time in a single engine airplane, 11 (eleven) hours in the multiengine aircraft, and 4 (four) hours in an advanced aviation training device. Learners will have acquired and demonstrated the minimum set of skills necessary to qualify for an endorsement for the Federal Aviation Administration (FAA) Commercial Pilot multiengine land and single engine land practical examinations. PREREQUISITES: Take 402-193 - Commercial V Basic Maneuvers; Minimum Grade C

#### **402-196**

##### **Flight Proficiency I**

**Credits: 1.00**

In this course, learners will, at the level appropriate to the certificate they hold, practice short, soft, crosswinds and normal takeoffs and landings, rejected landings and takeoffs and emergency procedures. Upon completion of this course, learners will have accrued 8 (eight) hours in a single-engine aircraft, and will demonstrate the minimum set of skills necessary to properly perform traffic pattern and ground operations in a single engine aircraft appropriate to the level of the certificate they hold. PREREQUISITES: Take 402-184 - Commercial I Multiengine Introduction; Minimum Grade C COREQUISITES: Take 402-185 - Commercial II Instrument Procedures I

#### **402-197**

##### **Flight Proficiency II**

**Credits: 2.00**

In this course, learners will, at the direction of their instructor, practice flight maneuvers and procedures applicable to the certificate being sought. Upon completion of this course, learners will have accrued up to 16 (sixteen) hours in a single-engine aircraft or 7.5 (seven and one half) hours in a multi engine aircraft and will demonstrate the minimum set of skills necessary to properly perform flight maneuvers and procedures applicable to the certificate being sought. PREREQUISITES: Take 402-180 - Private Pilot III; Minimum Grade C

#### **412-105**

##### **Diesel Control Systems, Advanced**

**Credits: 4.00**

This course will continue to develop the knowledge and skills required to troubleshoot, repair and maintain heavy duty vehicle control systems. Emphasis will be place on the skills that are required of a technician to utilize advanced electronic diagnostic tools. Topics include multiplex systems, active and inactive codes, system reprogramming intermittent codes (EBS), electronic braking systems, control systems and hydraulic control systems. The theory and operation of the Global Positioning System (GPS) and related systems will be covered. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-115 - Diesel Hydraulic Systems; Minimum Grade C Take 412-117 - Diesel Suspension & Steering Systems; Minimum Grade C

#### **412-106**

##### **Diesel Brake Systems**

**Credits: 4.00**

This course will develop the knowledge and skills required to troubleshoot, repair and maintain heavy duty vehicle braking systems. Hydraulic and pneumatic drum and disc systems will be covered. This course will help prepare for ASE certification. PREREQUISITES: Take 412-111 - Diesel Maintenance Fundamental Minimum Grade C

#### **412-107**

##### **Diesel Electricity 1**

**Credits: 4.00**

This course will develop the basic knowledge and skills required to troubleshoot, repair and maintain basic electrical/electronic systems that are utilized on today's heavy duty vehicles. Emphasis will be placed on the

Direct Current (DC) fundamentals and vehicle charging and starting systems. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-111 - Diesel Maintenance Fundamental

#### **412-108**

##### **Diesel Electricity 2**

**Credits: 3.00**

This course will focus on the development of troubleshooting and repair skills as they relate to electrical systems found on heavy duty vehicles. An emphasis will be placed on the understanding and application of electronic diagnostic tools and their application to modern heavy duty vehicles. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-107 - Diesel Electricity 1 Take 804-135 - Quantitative Reasoning

#### **412-109**

##### **Diesel Engine Service**

**Credits: 5.00**

This course provides the student with the knowledge and skills required to maintain basic diesel engines. Students will gain practical experience in rebuilding, testing, and troubleshooting by disassembling a diesel engine, inspecting it's components, explaining their function and reassembly. Diesel engine cooling and lubrication systems will be included. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-110 - Diesel Fuel Systems

#### **412-110**

##### **Diesel Fuel Systems**

**Credits: 3.00**

This course develops the knowledge and skills required to maintain basic diesel fuel systems. Operation and troubleshooting of system components such as fuel supply systems, fuel injection pumps and injectors, intake systems, turbo chargers and exhaust systems will be included. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-116 - Diesel Preventative Maintenance; Minimum Grade C

#### **412-111**

##### **Diesel Maintenance Fundamental**

**Credits: 2.00**

The student will develop the knowledge and skills to operate in today's heavy duty vehicle repair facility. Shop safety, hazardous material handling, hand tool identification and tool and personal safety will be emphasized. Skills development will be stress in the areas of precision measurement instrument usage, basic mechanical skills, and basic wiring skills learn the basic skills. Additionally, the course will include instruction on use of electronic information services, hard copy shop manuals and Wisconsin automotive practice regulations (ATCP132.)

#### **412-112**

##### **Diesel Drive Trains**

**Credits: 4.00**

The student will develop the knowledge and skills required to troubleshoot, repair and maintain heavy duty vehicle power trains. Topics will include clutches, manual transmissions, drive shafts, universal joints, and drive axles. This course will help the student prepare for ASE certification. COREQUISITES: Take 804-135 - Quantitative Reasoning

**412-113****Diesel Fuel Systems, Advanced****Credits: 3.00**

The student will develop the knowledge and skills required to troubleshoot and repair advanced heavy duty vehicle fuel systems. Fuel designs and characteristics (including alternative fuels), electronic management control and emission control systems will be emphasized. Exploration of diesel hybrid systems will be included. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-108 - Diesel Electricity 2 Take 412-110 - Diesel Fuel Systems

**412-114****Diesel Heating, Cooling & Air Cond****Credits: 3.00**

This course will develop the knowledge and skills required to troubleshoot, repair and maintain heavy duty vehicle heating, cooling and air-conditioning systems. Students will be required to take and pass the federal and state air-conditioning certification. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-107 - Diesel Electricity 1 COREQUISITES: Take 801-136 - English Composition 1

**412-115****Diesel Hydraulic Systems****Credits: 2.00**

This course will provide the application of basic hydraulic principles as they relate to typical heavy duty vehicle applications. The student will develop the knowledge and skills required to diagnose, service and repair and maintain hydraulic systems and components including valves, pumps, and cylinders. Servicing, diagnosing and preventive maintenance procedures will be performed on trucks and other equipment. This course will help the student prepare for ASE certification. PREREQUISITES: Take 804-135 - Quantitative Reasoning Course 412-111 - Diesel Maintenance Fundamental

**412-116****Diesel Preventative Maintenance****Credits: 3.00**

The student will develop the knowledge and skills that are required to conduct preventative maintenance on today's heavy duty vehicles. Students will become familiar with established industry standards and regulations (state and federal) and the NORTH AMERICAN out of service criteria. Vehicle inspections will be conducted on both on and off road vehicles with emphasis on component identification and inspections and preventative

maintenance services. This course will help the student prepare for ASE certification. PREREQUISITES: Take 412-111 - Diesel Maintenance Fundamental Minimum Grade C

#### **412-117**

### **Diesel Suspension & Steering Systems**

**Credits: 3.00**

This course will focus on the skills and knowledge required for today's technician to effectively diagnose, service and repair heavy duty suspension systems. Analysis of the construction and working principles of chassis components including vehicle frames, suspension systems, steering systems, wheels and tires will be covered along with wheel alignment. This course will help the student prepare for ASE certification.

PREREQUISITES: Course 412-111 - Diesel Maintenance Fundamental

#### **412-118**

### **I/C Engines**

**Credits: 3.00**

This course provides the student with knowledge of gas and diesel engine theory. Its focus will be operation, maintenance, and repair of diesel and gasoaline powered engines. Lubrication and cooling systems will also be covered. PREREQUISITES: Course 412-121 - Shop Tools and Safety Principles or TR

#### **412-119**

### **Mobile Electrical Systems**

**Credits: 3.00**

This course introduces the student to electrical theory in terms of voltage, amperage, resistance, and impedance in various circuits. Operation and troubleshooting methods using multimeters will be covered. Students will learn how to read and utilize electrical schematics and sysmbols. Batteries, starting circuits, charging circuits and electrical accessories will be covered.

#### **412-120**

### **Mobile Hydraulic Systems**

**Credits: 3.00**

This course introduces the students to the fundamentals of fluid power, components, different hydraulic systems, hydraulic schematics and terminology of the hydraulic systems used on modern mobile equipment. Includes operation of fluid flow on various systems, maintenance, and system diagnostics.

#### **412-121**

### **Shop Tools and Safety Principles**

**Credits: 2.00**

This course will introduce the student to the diverse mechanical skills required in today's service and repair facilities for mobile equipment. The student will demonstrate, through practical hands-on lab exercises, the proper care and use of common hand and power tools. General drilling, tapping, threading, and proper lifting



and supporting various mobile equipment will also be focused on. The student will also be required to use test instruments to gather data on length, volume, area, depth, and torque. Safety is stressed in this course.

### **412-123**

#### **Diesel Equipment Technology Internship**

**Credits: 3.00**

In this internship, students will participate in a planned diesel equipment technology learning experience in the workplace. Through direct occupational experience, students will participate in the supervised performance of maintenance, troubleshooting, and repair activities of diesel components. Worksite activities will focus on advanced fuel systems, engine overhaul, advanced control systems, and hydraulics.

PREREQUISITES: Courses 412-116 - Diesel Preventative Maintenance or TR Take 801-196 - Oral/Interpersonal Communication Take 801-197 - Technical Reporting

### **412-125**

#### **Construction Equip Dr/Steering System**

**Credits: 3.00**

This course will highlight an analysis of the construction and working principles of chassis components on heavy equipment. Included will be frames, suspension systems, steering systems, wheels and tires, tracks and undercarriage. Prepares the student with the knowledge and skills needed to adjust, diagnose, service and repair heavy duty suspension systems. Through participation in this course, students can prepare for AED Technical Assessments. PREREQUISITES: Complete course 412-111 - Diesel Maintenance Fundamental or TR

### **412-126**

#### **Construction Equipment Drive Train**

**Credits: 4.00**

The course will provide training with heavy equipment for proper diagnosis and repair of clutches, manual transmissions, drive shafts, universal joints, drive axles and planetary. Diagnostic and service procedures will apply to the heavy equipment construction industries. Through participation in this course, students can prepare for AED Technical Assessments. PREREQUISITES: Take 412-111 - Diesel Maintenance Fundamental Take 412-106 - Diesel Brake Systems Take 412-125 - Construction Equip Dr/Steering System

### **412-127**

#### **Construction Hydraulic Systems**

**Credits: 4.00**

This course will provide the conditioned development of hydraulic principles and understanding of compounds used in heavy and light equipment. The student will experience activities with advanced hydraulic components including, disassembly and assembly of pumps, motors, accumulators, mechanical and electrical controlled hydrostatic systems. Servicing diagnosing and preventive maintenance procedures will also be performed on heavy equipment. Through participation in this course, students can prepare for AED Technical Assessments. PREREQUISITES: Complete courses 412-108 - Diesel Electricity 2 412-109 - Diesel Engine Service 412-111 -

Diesel Maintenance Fundamental 412-115 - Diesel Hydraulic Systems 412-126 - Construction Equipment Drive Train or TR

### **413-501**

#### **Arithmetic and Introduction to Algebra For Electrical Crafts**

**Credits: 1.00**

This course is an intensive review of arithmetic, with emphasis on common and decimal fractions, ratio and proportion, percentage, systems, units of measurement, conversions, and square root. An introduction to algebra, including terminology, additive functions, grouping symbols, axioms, basic procedures, multiplication, and division, is included.

### **413-502**

#### **Electrical Circuitry Algebra and Trigonometry**

**Credits: 1.00**

This course covers sign numbers, grouping symbols, factoring equations in one unknown, fractions, fractional equations, exponents and radicals, solution of simultaneous equations, and an introduction to factors.

### **413-503**

#### **Basic AC/DC Current Motor Control**

**Credits: 1.00**

This course is an introduction to DC and AC motor control concepts. Topics include: fundamental concepts of electricity and magnetism, three phase motors, single-phase motors, DC motors and generators, and DC motor controls.

### **413-506**

#### **Electrical Theory I/Construction**

**Credits: 4.00**

Introduces the apprentice to the basic electrical concepts of structure of matter, electron theory; Ohm's law for series-parallel circuits; volt and current measurements; conductors and resisters; electrical power and energy; and the National Electrical Code.

### **413-510**

#### **Motor Control**

**Credits: 1.00**

The principle objective is to present the fundamentals of motor control by developing the ability to read and draw control circuits given many control problems using schematic, wiring and piping diagrams.

### **413-516**

#### **Electrical Theory II/Construction**

**Credits: 4.00**

**413-519**

**Microprocessors/Advanced**

**Credits: 4.00**

This course provides an in-depth study of 16-bit MP's including terms, architecture, programming, interfacing, assembly language, addressing modes, memory, logic and control lines, dynamic and static ram, and input/output interfacing using the 8088 MP.

**413-526**

**Electrical Theory III/Construction**

**Credits: 4.00**

**413-528**

**Direct Current Fundamentals**

**Credits: 1.00**

This course covers electron theory, Ohm's Law, series and parallel circuits, power, Kirchoff's Law, work effective heat torque, motor sizes, wire sizes, voltage drop, wiring systems, and kinds of wire insulation.

**413-529**

**Single Phase AC Fundamentals**

**Credits: 1.00**

This course covers properties of alternating current, AC measurement, inductance and inductive resistance, capacitance and capacitive resistance, impedance, series and parallel AC circuits, resonance, and power and power factor correction.

**413-536**

**Electrical Theory IV/Construction**

**Credits: 4.00**

**413-538**

**Alternating Current Fundamentals**

**Credits: 1.00**

This course covers alternators, rotating magnetic fields, AC motors, speed control, types of winding, and an introduction to AC motor control.

**413-539**

**National Electric Code (BAT)**

**Credits: 1.00**

This course is a study of national and local electrical codes for wiring and apparatus. It covers wiring design and protection, wiring methods and materials, general use equipment, special occupancies, special equipment, and the use of tables and diagrams for the solution of practical wiring problems.

**413-540**

**Automation Circuits & Introduction to Programmable Logic Controllers**

**Credits: 1.00**

This course is an introduction to programmable controllers, specifically the Allen Bradley SLC-500. It covers basic instructions, programming software, input and output files, timers and counters, and programming instructions.

**413-546**

**Electrical Theory V/Construction**

**Credits: 4.00**

**413-548**

**Programmable Logic Controllers I**

**Credits: 1.00**

This course is an introduction to programming techniques, hardware configuration, and theory of operation of a programmable logic controller. The Modicon industrial controller is the system to be studied.

**413-557**

**AC Electricity**

**Credits: 2.00**

This course is designed to introduce the industrial electrical student to the basic concepts of alternating current. Emphasis is placed on circuit analysis and the problem solving skills necessary for the maintenance of modern industrial electric systems.

**413-558**

**Codes 2: OCPD/Electrical Device Install**

**Credits: 0.50**

In this module of Codes for Industrial Electricians, students will learn how to plan for the installation of overcurrent protection devices and how to select the proper boxes, cabinets and conduits for industrial electrical installations as called for in the NEC and other electrical codes.

**413-559**

**Codes 3: Article 250 Part A**

**Credits: 0.50**

This course examines the application of grounding to industrial electrical situations as required by the NEC and other electrical codes.

**413-562**

**Codes 4: Article 250 Part B**

**Credits: 0.50**

This course examines Article 250 and grounding applications for industrial electrical installations. Students will complete their review of this portion of the NEC and examine additional related codes in effect across Wisconsin.

**413-563**

**Codes 5 Art.300, Crds/Cble, Haz Install**

**Credits: 0.50**

This course examines Article 300 of the NEC and wiring methods for industrial electrical applications. Students will determine sizing requirement for cords and cables for installations common to industrial facilities. This course will identify code requirements for equipment installations in hazardous locations.

**413-564**

**Codes 6 Cond., Raceways, Data/Comm Cabl**

**Credits: 0.50**

This course covers the selection of proper conductors and raceways for industrial electrical installations as required by the NEC and other electrical codes. Course competencies will include examining the installation requirements for data and communication cables.

**413-569**

**Codes 7: Motors and Generators**

**Credits: 0.50**

This course reviews the code requirements for the selection of electrical components for typical industrial electrical motor installations. Course module includes sizing of controls, conductors, switches, branches, and more.

**413-570**

**Codes 8: Transformers**

**Credits: 0.50**

This course reviews the electrical code requirements which provide for the protection of various industrial transformer installations. Course competencies include developing plans, sizing equipment and components, safety, and references to applicable sections of the NEC.

**413-571**

**Codes 1: Introduction to NEC**

**Credits: 0.50**

This course introduces the student to the layout and purpose of the National Electric Code. It will teach the student proper methodology to research a code question and correctly interpret what is read. Students will research the structure of the NEC and define the requirements of the code that are common to all electrical installations. Students will examine the installation requirements for fire pumps, emergency systems and fire alarms.

**413-576**

**DC Electricity**

**Credits: 2.00**

This course introduces the fundamental concepts of and computations related to DC electricity. Emphasis is placed on circuit analysis and the problem solving skills necessary for the maintenance of modern industrial electric systems. Competencies related to metering and safe use of measuring devices are included.

**413-577**

**Motor Controls 1**

**Credits: 1.00**

This course will lead the student through the fundamentals of electric motor control. Students will learn to recognize and draw the basic symbols, the language of motor control, and how to apply these symbols into current industrial format. Students will learn to draw and read ladder and wiring diagrams. Students will be introduced to the logic used in motor control and be required to apply this logic in order to correctly interpret, design, and wire control circuits.

**413-578**

**Motor Controls 2**

**Credits: 1.00**

This course will examine motor controls applicable to the industrial electrician trade.

**413-579**

**Motor Controls 3**

**Credits: 1.00**

This course examines motor controls applicable to the industrial electrician trade. Applications and assessment activities are intended in this course.

**413-586**

**Motors and Generators**

**Credits: 1.00**

This course introduces concepts, terminology, and safety. This course is designed to give the student the knowledge required by industry to maintain electric motors and generators. This course will cover DC motors and generators, single phase motors as well as alternators.

**413-587**

**Power Systems & Variable Speed Drives**

**Credits: 2.00**

This course provides the opportunity for students to learn about power systems and variable speed drives. Topics include electricity, electronics, power transmissions, motor operations, AC and DC motor drives, servo and stepper drives, peripherals and communication. Students will also explore closed loop control, feedback devices, and drive maintenance and the troubleshooting of VSD's.

**413-588**

**Solid State Electronics**

**Credits: 2.00**

This course provides the student with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identifications, and operating characteristics of solid-state devices is investigated. The student builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective components are applied. The replacement of printed circuit board components is performed. Also examined is the effect of temperature on the operation of solid state devices.

**413-589**

**Transformers**

**Credits: 1.00**

This course is designed to introduce the Industrial Electrician student to the basic concepts of single and three-phase transformers. The course will cover transformer theory, turns, current and voltage ratios as well as proper connections and use of various transformers.

**413-595**

**Fluid Power Systems - Hydraulics**

**Credits: 0.50**

The hydraulics course is customized for Industrial Electricians and relates the basics of hydraulic theory and hydraulic components. Safety and the interrelationship between hydraulic power with electrical control is emphasized.

**413-596**

**Fluid Power Systems - Pneumatics**

**Credits: 0.50**

This is a pneumatics course customized for industrial electrician students who deal with fluid power systems. This course will relate the basics of pneumatic theory and pneumatic components. Safety and the interrelationship between pneumatic power with electrical control is emphasized.

#### **413-597**

##### **Green Awareness for the E & I Trades**

**Credits: 1.00**

Green Awareness for the E&I trades examines new and emerging technologies influenced by green trends which are impacting work processes today and in the future. The course introduces students to green related knowledge and skills. Green topics covered in this course include energy efficiency; energy conservation; changes in state, national and local codes; lighting alternatives; alternative energy generation; energy efficient motors, drives, controllers and equipment; eliminating toxic materials and reducing wastes; and specific 'green' applications for the various trades involved under the E & I trades.

#### **413-598**

##### **Programmable Logic Controllers 1**

**Credits: 1.00**

This course is designed to teach fundamentals of programmable logic controller and its programming software. This course will introduce terminology, concepts, print reading and safety.

#### **413-599**

##### **Programmable Logic Controllers 2**

**Credits: 1.00**

This is the second of 3 courses for industrial electrician students.

#### **413-600**

##### **Programmable Logic Controllers 3**

**Credits: 1.00**

This is the third course of 3 for industrial electrician students. PLC applications and assessment projects are planned.

#### **413-601**

##### **Safety and Print Reading**

**Credits: 0.50**

This course will acquaint the student with the interpretation of 'Prints' (blueprints) and other engineering and manufacturing documentation. The primary focus of the course will be on the basics of prints and how they are used to convey information to technicians. Application of electrical prints from industrial settings will be studied.

#### **413-602**



## **AC & DC Motors**

**Credits: 1.00**

This course identifies the components of an AC motor, introduces the student to DC motors, basic components and theory, and discusses split-phase motors and capacitance start motors. Defines and explains AC motor functions, synchronous speed and how to calculate it, the components and functions of various three-phase motors, the components and functions of externally excited motors, starters, and variable speed drives, basic magnetic principles, sine waves, methods of increasing magnetic flux in a conductor, how rotating field is created in an AC motor, torque, and role in motor operation, and the components and functions of externally excited motors, starters, and variable speed drives. Demonstrates the relationship between phased current and roto spin, induction, its effect on a rotor, armature reaction, compensations, and introduced voltage. Trains the student to practice slip and how to calculate it using a formula and distinguish single-phase motors from three-phase motors.

## **413-603**

### **Solid State Electronics Basics**

**Credits: 1.00**

This course provides the student with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identifications, and operating characteristics of solid-state devices is investigated. The student builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective components are applied. The replacement of printed circuit board components is performed. Also examined is the effect of temperature on the operation of solid state devices.

## **413-604**

### **Variable Speed Drives**

**Credits: 1.00**

This course provides the opportunity for students to learn about power systems and variable speed drives. Topics include electricity, electronics, power transmissions, motor operations, AC and DC motor drives, servo and stepper drives, peripherals and communication. Students will also explore closed loop control, feedback devices, and drive maintenance and the troubleshooting of VSD's.

## **413-701**

### **Elect. Safety & Print Reading Electrical Safety & Print Reading**

**Credits: 1.00**

This course is designed to provide basic electrical skills to those who need to perform first-line electrical maintenance tasks including the safe isolation, replacement, and testing of a range of common electrical devices (motors, sensors, heating elements, solenoids, etc.) in a safe and effective manner. In addition to basic electrical skills, this course will acquaint the student with the interpretation of 'Prints' (blueprints) and other engineering and manufacturing documentation. The primary focus of the course will be on the basics of prints and how they are used to convey information to technicians. Application of electrical prints from industrial settings will be studied. Importantly, the format of the course is specifically designed so that, when combined

with suitable on-site consolidation of training, it will assist the maintenance manager in meeting the legal requirements for employee competence in electrical work.

#### **413-705**

##### **Codes for Industrial Electricians**

**Credits: 2.25**

This course introduces the student to the layout and purpose of the National Electric Code. It also strives to teach the student proper methodology to research a code question and correctly interpret what they are reading. Students will research the structure of the National Electric Code and define the requirements of the code that are common to all electrical installations. In addition, students will examine the installation requirements for fire pumps, emergency systems and fire alarms, plan for the installation of overcurrent protection devices and how to select the proper boxes, cabinets, and conduit, the application of grounding, examine Article 250, Article 300 of the NEC and wiring methods, determine sizing requirements for cords and cables for installations common to industrial facilities, the selection of proper conductors and raceways for industrial facilities, the code requirements which provide for the protection of various industrial transformer installations.

#### **419-511**

##### **Hydraulic Pumps Apprenticeship**

**Credits: 0.75**

The student will be able to design hydraulic pumps using a variety of pressure and flow control valves.

#### **419-551**

##### **Pneumatics Apprentice**

**Credits: 1.00**

Learning is accomplished with lecture and laboratory using hydraulic, pneumatic, and electrical hardware, videotapes, multi-media interactive video, reference books, and computer simulation software.

#### **419-567**

##### **Basic Hydraulics Beginning**

**Credits: 1.00**

Students study all the basic components of hydraulics in simple fluid power systems, covering topics such as symbols, flow control valves, pressure control valves, and directional control valves and pumps.

#### **420-317**

##### **CNC Machining Operations**

**Credits: 2.00**

This course presents Computer Numerical Control (CNC) concepts and skills. Students learn how to setup and operate CNC machinery. Basic programming, G and M codes, and fundamental features of CNC control panels are introduced. PREREQUISITES: Course 420-330 - Machine Tool I with a Minimum grade of C or TR

## **420-318**

### **Die Stamping**

**Credits: 4.00**

This course presents concepts and skills used in the construction of progressive dies. Through critical thinking and practical applications, students will construct two progressive pierce and blank dies that will produce the parts for a non-twist clamp. They will make the hardware that turns the stamped pieces into five separate working clamps and perform entry-level machining tasks for employment in the machining industry.

PREREQUISITES: Course 420-332 - Machine Tool II with a Minimum grade of C or TR

## **420-319**

### **Electrical Discharge Machining**

**Credits: 2.00**

This course presents concepts and skills needed to use CNC programming to operate a wire Electrical Discharge Machine (EDM). Students will program a Mitsubishi wire EDM and perform routine maintenance of the machine and part set-up. PREREQUISITES: Course 420-317 - CNC Machining Operations with a minimum grade of C or TR

## **420-326**

### **GD & T for Die Making**

**Credits: 1.00**

This course presents concepts to interpret more complex prints and tolerancing techniques. Students will examine part dimensions and assemblies and construct stamping dies. PREREQUISITES: Course 420-329 - Industrial Print Interpretation with a minimum grade of C or TR

## **420-328**

### **Heat Treating Processes**

**Credits: 2.00**

This course explores the properties of industrial metals with a focus on ferrous metals and tool steels. Students will examine a variety of heat treating applications and will perform metal hardness and stress testing.

## **420-329**

### **Industrial Print Interpretation**

**Credits: 2.00**

This course presents universal techniques for interpreting mechanical and industrial prints. Students learn to visualize parts and assembly through interpretation and sketching activities. Drawing standards, abbreviations, dimensioning rules and sectional views are emphasized. Geometric dimensioning and tolerancing are introduced.

## **420-330**

## **Machine Tool I**

**Credits: 4.00**

This course introduces the basic concepts and skills needed to operate engine lathes, power saws, drill presses and bench applications. Safe and proper operation of tools and machines is emphasized. Students will operate speeds, feeds, cutting tools, tool geometry, tool grinding and work-holding devices. Dimensional accuracy and finished quality will be emphasized.

**420-332**

## **Machine Tool II**

**Credits: 4.00**

This course expands on the basic concepts and skills introduced in Machine Tool I related to engine lathes, power saws, drill presses, bench applications, CNC setup and operation. Safety and proper operation of tools and machines is emphasized. Speeds feeds, cutting tools, tool geometry, tool grinding and work-holding devices are examined. Dimensional accuracy and finished quality are emphasized. COREQUISITES: Course 420-330 - Machine Tool I Take 804-370 - Mathematics I/Applied

**420-333**

## **Metallurgy Principles**

**Credits: 1.00**

This course examines the principles concerning the metals used in the industrial world. The production and properties of these materials are presented as well as their application. Students investigate the behavior of ferrous and non ferrous metals with an introduction to steel alloys.

**420-334**

## **Precision Measuring and Gauging**

**Credits: 1.00**

This course introduces the student to precision measuring equipment and techniques. Students will measure a wide variety of interior and exterior part features. Advanced equipment such as the dial caliper and outside micrometer will be presented.

**420-335**

## **Surface Grinding**

**Credits: 1.00**

This course presents techniques for the precision grinding of various metals. Students perform a variety of complex setups and precise machining. Safety and cleanliness are emphasized. PREREQUISITES: Course 420-330 - Machine Tool I

**420-342**

## **CNC Introduction and Support Equipment Basics**

**Credits: 1.00**

This course is designed to give the students a familiarization with the necessary practices and techniques used to operate Computer Numerical Controlled (CNC) machines. Some of the topics covered include CNC machine introduction, safe practices and techniques used to remove burrs, Machinery's Handbook usage, basic CNC machine operator maintenance, and production support equipment use and operation. COREQUISITES: Take 420-345 - Gauging/Inspection Take 623-147 - Manufacturing Shop Safety

**420-343****CNC Machine Tool Operation****Credits: 4.00**

This course is actual run time in the lab for hands-on machine operation. Students will work in groups and as individuals to gain experience in machine operation during a production run. Students bring together all of the theories learned in other classes and apply them to the production process.

**420-344****CNC Offsets and Operations****Credits: 1.00**

In this course, we will cover CNC machine operations. Topics covered include machine homing, tooling used, an understanding of offsets, setting offsets, and the application of offsets in the CNC machine. COREQUISITES: Course 420-345 - Gauging/Inspection

**420-345****Gauging/Inspection****Credits: 2.00**

Students will learn to apply blueprint specifications, perform shop math calculations, understand geometric dimensions and tolerances, and correctly use many different analog and digital measuring instruments, including various types of micrometers, calipers, stales, gauges (height, plug, thread, and surface roughness), and optical comparators. COREQUISITES: Take 421-376 Take 804-370 - Mathematics I/Applied

**420-494****Cost Estimating****Credits: 0.25**

This course will provide the learner knowledge of the necessary steps to cost and build the various componenets used in manufacturing, including dies, mold, fixtures and gauges. The learner will utilize a hands-on approach to performing cost estimations as if they were in the position of doing so in the real world for a company.

**420-495****Grinding, Drilling, & Cut-Off Machine****Credits: 1.00**

In this course, the techniques and machines used for surface grinding, hand grinding, and ID+OD grinding will be reviewed. The use of different types of drilling machines and their functions will be presented, including how they benefit the tool and die maker. The importance of cut-off machines including the various types, pros and cons will also be discussed.

#### **420-505**

##### **Machine Technology I**

**Credits: 1.00**

Survey different areas of machine technology. Variety of areas covered are: safety, measurement, layout, hand tools, drills, grinding, lathe, milling.

#### **420-506**

##### **Basic CAD/CAM**

**Credits: 1.00**

This course is designed for students in the CNC Apprenticeship program to gain basic knowledge of what CAD/CAM is and how it is effective in the CNC manufacturing area. The student will be introduced to various concepts and methods of producing parts and drawings and then uploading them to the CNC machine for machining. The student will learn the basics of drawing a part from a concept or looking at a drawing and implementing the tools in the CAM program.

#### **420-509**

##### **CNC Programming and Planning**

**Credits: 1.00**

This course is designed for students in the CNC program to gain knowledge of planning the steps to machine a part and learn how to program the machine using these steps. The student will be given a print and they will need to decide how to hold the part, what features to machine first and second, and why they need to be machined in this order. The student will also learn about various machines and which one works best with their applications in industry. The student will utilize the CAD/CAM from other courses to help with the programming and planning.

#### **420-510**

##### **Industrial Manufacturing Tech. Appr. 1**

**Credits: 2.75**

The first semester of related instruction includes an orientation to the trade and manufacturing, then followed by the MSSC safety module, MSSC quality module, OSHA 10 certification, blueprint reading, visual inspection, measurement and first aid and CPR training. Manufacturing concepts will be introduced and applied in a variety of manufacturing settings. MSSC modules 1 and 2 are aligned with the learning plans for this course along with the MATC course Machine Trades Math.

#### **420-512**

##### **Industrial Manufacturing Tech. Appr. 2**

**Credits: 2.75**

The second semester of related instruction includes the MSSC manufacturing processes and production and maintenance awareness modules, along with communication, lean manufacturing, problem solving, and frontline leadership. Manufacturing related concepts will be applied to a variety of industrial settings. The course wraps-up with an examination of emerging trends and technologies, and future directions for manufacturing. MSSC learning objectives in modules 3 and 4 are aligned with the learning plans for this course. In addition, the MATC Communication for Apprentices course is included in the learning plans, but will stand alone for registration and transcript purposes.

**420-516****Precision Measurement****Credits: 1.00**

This course introduces students to the use of various types of precision measurement instruments used in the CNC/Tool & Die manufacturing environment. The students will learn about different types of Micrometers, Calipers, Gage blocks, and Gage pins. The students will be taught how to measure inside the part with telescoping gauges or Bore gauges. The students will also be introduced to SPC. The method of holding light tolerances will be discussed in this course also.

**420-517****Cutting Tools****Credits: 0.50**

This course will introduce various types of cutting tools used in the Tool & Die/Mold Maker fields. While in the class, the students will learn the basics of drills and taps to the many different types of inserts, cutting edges and angles associated with these cutting tools. We will also discuss the different types of tool holders for these tools and the pros and cons of the different types of holders.

**420-518****Machinery Handbook****Credits: 0.25**

This course is designed to introduce the students to the Machinery's Handbook. The Machinery's Handbook is an in depth book comprised of information pertaining to the manufacturing world. We will focus on the Tool & Die/Mold making information found in the book. The students will also focus on various ways to look up information using this book.

**420-519****Geometric Dimensioning & Tolerancing****Credits: 0.25**

This course is designed to introduce the students to Geometric Dimensioning & Tolerancing (GD&T) systems. We will discuss the 5 different groups and the symbols associated within the GD&T groups. The students will be shown how and why the GD&T symbols are used on a blueprint. While introducing the different symbols

for GD&T, the students will be shown how to check or verify the manufactured parts using these various symbols.

#### **420-520**

##### **Precision Measurement**

**Credits: 0.50**

This course introduces students to the use of various types of precision measurement instruments used in the CNC/Tool & Die manufacturing environment. The students will learn about different types of Micrometers, Calipers, Gage blocks, and Gage pins. The students will be taught how to measure inside the part with telescoping gauges or Bore gauges. The students will also be introduced to SPC. The method of holding light tolerances will be discussed in this course also.

#### **420-560**

##### **Machine Trades/Mathematics 3**

**Credits: 1.00**

#### **420-561**

##### **Machine Trades/Mathematics 4**

**Credits: 1.00**

#### **420-569**

##### **Electrical Discharge Machining Apprenticeship**

**Credits: 1.00**

Course is designed to give apprentices a basic understanding of theory and process of sinker and wire EDM in toolmaking.

#### **420-592**

##### **Numerical Control**

**Credits: 1.00**

This course is a basic course as it relates to machine tools. Learning the operation of numerical control and the programming of simple jobs. Designed to introduce numerical control to machine trades apprentices.

#### **421-316**

##### **Blueprint Reading/Advanced**

**Credits: 2.00**

Review of basic blueprint reading principles. Deals with more forgings, castings and complex prints. New material introduced includes surface textures, fits, auxiliary views, cast iron, pin fasteners, gears, cams, ratchet wheels, and additional GDT coverage. Students read information units, perform mathematical calculations, and answer questions pertaining to part prints. PREREQUISITES: Course 444-337 - Fund of Blueprint and Shop Safety COREQUISITES: Course 801-301 - Writing Principles



**421-515****Blueprint Reading I/Metal Trades****Credits: 1.00**

This course covers the basic principles necessary for training in the interpretation of blueprints and free hand drawings of machine parts.

**421-516****Blueprint Reading 2/Machine Trades****Credits: 1.00**

This course teaches students proficiency in the interpretation of blueprints which illustrate job procedure tactics and their relation to drafting. Special attention is given to drawings which represent common machine processes.

**423-501****Equipment Installation****Credits: 0.75**

Students will layout equipment installations, plan for moving equipment, and set and level equipment.

**423-502****Mechanical Power Transmission****Credits: 0.75**

Course examines drive transmission systems and their applications, including roller chains. Students will develop skills inspecting power transmission systems and troubleshooting mechanical drive systems.

**423-503****Packings, Seals, Gaskets****Credits: 0.50**

Students will examine packing, seals, and gaskets and compare materials and applications. Then skills in layout, cutting, inspecting, removing, and installing these components will be developed.

**423-504****Pipefitting and Valves****Credits: 0.75**

Course introduces students to pipe sizes, materials and schedules, examines fittings, tubing and valves, and develops skills related to layout, installation, and maintenance.

**423-506****Sheet Metal & Structural Steel Fab**

**Credits: 0.75**

Course compares types of sheet metal and tools used by the trade. Students will develop skills related to fabricating sheet metal and structural steel and then erecting structural steel.

**423-507****Vacuum Systems****Credits: 0.75**

Course introduces principles of vacuum systems and interpreting vacuum system schematics. Students will then develop skills related to installing, repairing, replacing and applying troubleshooting principles to vacuum systems and components. Course examines preventative maintenance techniques commonly used on the job.

**423-508****Fasteners****Credits: 0.25**

Course provides students with a chance to compare fasteners and their uses, analyze fastener failures, and install mechanical fasteners.

**423-565****Principles of Rigging****Credits: 0.50**

Learning is accomplished by using a combination of lecture and practical lab assignments. The basic principles of safe rigging will be explored.

**423-716****Metallurgy****Credits: 1.00**

This course develops skills regarding metallurgical concepts. Students will compare various metals and their applications, apply metallurgical techniques to work processes, test metals for hardness, and examine heat treating applications.

**423-724****Preventative & Predictive Maintenance****Credits: 1.00**

Course examines both preventative and predictive maintenance concepts as they apply to millwright work processes and machine maintenance. Students will develop skills related to assessing machine conditions and faults based on both preventative and predictive maintenance.

**423-730****Bearings**

**Credits: 0.75**

Students will examine bearing types and applications, and compare equipment bearings. Learners will develop skills related to bearing inspection, selection, removal, mounting, lubrication and diagnosing bearing failures.

**423-731**

**Couplings & Alignment**

**Credits: 1.00**

Course compares different coupling types and examines common misalignment problems. Learners will develop skills related to inspecting, troubleshooting, and preparing couplings for removal and installation, and also aligning and lubricating couplings.

**427-401**

**Plumbing Applications**

**Credits: 0.90**

Examines a variety of real-life applications used in the plumbing trades and typically covered in paid related instruction. The units address the how's and whys behind joints and connections, rigging and signaling, hydraulics and pneumatics, plumbing and the environment, gas pipe applications, and applied electricity for plumbers.

**427-500**

**Plumbing I/Related**

**Credits: 2.00**

**427-501**

**Plumbing II/Related**

**Credits: 2.00**

**427-502**

**Plumbing III/Related**

**Credits: 2.00**

**427-503**

**Plumbing IV/Related**

**Credits: 2.00**

**427-504**

**Plumbing V/Related**

**Credits: 2.00**

**427-505**

## **Plumbing VI/Related**

**Credits: 2.00**

**427-515**

### **Plumbing Fundamentals Apprenticeship**

**Credits: 1.00**

Students will learn the basic fundamental practices and techniques of the plumbing trade with an emphasis on safety throughout the course. Learning will be accomplished through a combination of class discussion and practical exercises.

**427-578**

### **Green Plumbing Applications**

**Credits: 2.00**

This course provides plumbing apprentices with an introduction to green applications. Apprentices will be instructed on how to identify, install and maintain a variety of green products and systems. They will apply the Wisconsin Plumbing Code to various installations. This introduction will give an apprentice the basic knowledge to study for a variety of green certifications.

**427-579**

### **Plumbing Advanced Topics**

**Credits: 2.00**

Plumbing Apprentices will be required to interpret building plans and specifications, and apply code requirements to site plans, floor plans, and isometric drawings of DWV, water, POWTS, and stormwater systems.

**439-300**

### **Basic CAD and Basic Toolroom CAM**

**Credits: 2.00**

This course is designed to introduce the student to Basic CAD (Computer Aided Design) / Basic CAM (Computer Aided Machining) practices used in the tool room. The student will complete a machined part from the beginning to the end using the CAD/CAM software. Each student will draw a part using CAD software, the student will then assign the necessary tools needed to machine the part, and program the tools to machine part. The students will then run the part through a simulator and prove out their program. Once the part is proven they will then download the program to a tool room machine and produce the part safely and correct.  
COREQUISITES: Course 804-370 - Mathematics I/Applied

**439-301**

### **Tool Room Theory**

**Credits: 1.00**

The Tool Room Theory course will cover topics such as Die Stamping, Jig and Fixtures, Mold Making and advanced tooling techniques. The students will gain knowledge in each of these topics through various class discussions and hands on displays. This course will also cover various types of cutting tools and their purpose on the machining floor.

**439-505**

**Stamping and Die Design Applications**

**Credits: 1.00**

This course presents concepts and skills used in the construction of various types of stamping and forming dies. Students will learn how stamping dies work and what parts make-up the design.

**439-506**

**Mold Die Design Applications**

**Credits: 1.00**

Students will research design applications and the construction of various types of molds used in industry today. Instruction will include how molds work and what parts make-up the mold design.

**439-507**

**Milling/Turning 1**

**Credits: 1.00**

This course introduces the basic and minor advanced Milling and Turning used in industry today. Safe and proper operation of tools and machines is emphasized. Students will learn speeds and feeds and use various types of tools used on the lathe and mill.

**439-508**

**Milling and Turning II**

**Credits: 1.00**

This course is designed for students in the CNC Apprentice program to gain advanced knowledge of the support machines used in the tool room and CNC manufacturing environments. This is an advanced class and uses advanced techniques from the Milling and Turning I course. Students will make advanced parts and fixtures for the CNC machines. Machine processes used in this class will help support CNC machining methods.

**439-530**

**Die Making/Apprentice**

**Credits: 1.00**

This course presents advanced concepts and skills used in the construction of various types of stamping and forming dies. Students will learn how these dies work and what parts make up the die design.

**439-535**

**Jig and Fixture Design**

**Credits: 1.00**

This course explores the basic types and functions of jigs and Fixtures, design economics. Design and construction of jigs, fixtures, and specialized workholding topics.

**442-101**

**Welding Basics**

**Credits: 1.00**

This lab course covers the fundamentals of welding. Welding, soldering, brazing, and fabrication of various metals are included.

**442-102**

**Introduction to Welding**

**Credits: 2.00**

This course provides the theory and practical experience for arc and gas welding techniques. An emphasis is placed on basic safety, equipment usage, and proper procedures. The welding of ferrous and non-ferrous metals will be explored.

**442-303**

**Welding/Basics of Robotic Welding**

**Credits: 3.00**

This course provides instruction in basic welding robot operation including powering up, homing procedures, powering down, and proper work angles for all welding processes. The student will also learn the importance of proper travel speeds and welding equipment setup to ensure for quality welds when programing robots. A heavy emphasis on robotic cell safety is also included in this course COREQUISITES: Complete course 442-321 - Welding/Gas Metal Arc Welding

**442-304**

**Welding/Robotic Advanced GMAW**

**Credits: 3.00**

This course builds on the principles taught in both GMAW courses and the Basics of Robotic Welding course and how to integrate those principles to achieve industry-ready robotic programming and welding skills. This course reinforces the importance of safety when working in a robotic welding environment and focuses on all aspects of safely operating and basic consumable replacement and repair. This course also covers fixture and jig building to help create an atmosphere for repeatable weldments for production parts runs.

**442-305**

**Welding/Robotic Advanced GTAW**

**Credits: 3.00**

This course reinforces the principles taught in the hands-on GTAW courses along with the Basics of Robotic Welding course and describes how to integrate those principles to achieve industry-ready robotic programming/welding skills. There is a heavy emphasis on the importance of balancing safety and efficiency in a robotic welding environment. An extensive focus on fixture and jig building design will be incorporated. Students will build their own fixtures to demonstrate the ability to produce production parts with a robot.

#### **442-306**

##### **Pipe Gas Metal Arc Welding**

**Credits: 3.00**

This course builds on the principles taught in the GMAW classes and provides instruction on the skills necessary for the pipe welding industry. The fundamentals of pipe fit-up, preparation, tacking, and electrode selection for both ASME and API standards. Students will perform open butt GMAW root and fillers with ER70S-2 in 2G, 5G and 6G positions. The course will focus on safely performing work and the necessary qualifications required for the pipe welding environment. COREQUISITES: Complete course 442-321 - Welding/Gas Metal Arc Welding

#### **442-307**

##### **Welding/Pipe Gas Tungsten Arc Welding**

**Credits: 3.00**

This course builds on the principles taught in the GTAW classes and provides instruction on the skills necessary for the pipe welding industry. The fundamentals of pipe fit-up, preparation, tacking, and electrode selection for both ASME and API standards. Students will perform open butt GTAW root and fillers with ER70S in 2G, 5G and 6G positions. Welding on aluminum, stainless, and other alloy pipes will also be performed. The course will focus on safely performing work and the necessary qualifications required for the pipe welding environment. PREREQUISITES: Take 442-322 - Welding/Shielded Metal Arc Welding Take 442-323 - Welding/Gas Tungsten Arc Welding

#### **442-308**

##### **Welding/Pipe Shielded Metal Arc Welding**

**Credits: 3.00**

This course builds on the principles taught in the SMAW classes and provides instruction on the skills necessary for the pipe welding industry. The fundamentals of pipe fit-up, preparation, tacking, and electrode selection for both ASME and API standards will be covered. Students will perform open butt SMAW welding with E6010, E7018 electrodes in 2G, 5G and 6G positions. The course will focus on safely performing work and the necessary qualifications required for the pipe welding environment. COREQUISITES: Complete course 442-322 - Welding/Shielded Metal Arc Welding

#### **442-314**

##### **Welding/Fundamentals of**

**Credits: 2.00**

This course covers the four main welding processes of gas metal ARC (mig wire) shielded metal arc (stick) gas tungsten arc (tig, heliarc) and oxyacetylene weld, cut and braze. Ideal course for beginners, home welders or apprentices.

**442-321**

**Welding/Gas Metal Arc Welding**

**Credits: 3.00**

(GMAW; MIG; Short-Arc; Wire. Instructs in basic safety, equipment usages and procedures with various filler metal in four basic welding positions. Instruction in plasma arc cutting of various metals. Provides considerable hands-on experience as well as technical information.

**442-322**

**Welding/Shielded Metal Arc Welding**

**Credits: 3.00**

(SMAW,Stick,Stick-Arc) Instructs in basic safety, equipment usages and procedures with five basic welding electrodes in four basic welding positions. Provides considerable hands-on experience as well as technical information. Allows for simulated structural steel welding certification opportunity.

**442-323**

**Welding/Gas Tungsten Arc Welding**

**Credits: 3.00**

(GTAW, TIG, Heli-Arc, Tungsten) Instructs in basic safety, equipment usages and procedures with various filler rods in three basic welding positions. Provides considerable hands-on experience as well as technical information.

**442-324**

**Weld Printreading and Fabrication Procedures**

**Credits: 2.00**

Instructs in basic graphic communication relating to the welding field. Provides for hands-on application of fabrication from blueprints. Follows American Welding Society welding symbol format.

**442-330**

**Welding/Advanced Shielded Metal Arc Welding**

**Credits: 3.00**

Provides advanced welding applications in SMAW welding with small (3/23 inch) and large (5/32 inch) electrodes hardface, aluminum, structural and pipe applications. PREREQUISITES: Course 442-322 - Welding/Shielded Metal Arc Welding

**442-332**

**Welding/Advanced Gas Metal Arc Welding**



**Credits: 3.00**

Provide advanced welding applications in GMAW welding using various size and types of electrodes of hard and soft wires on structural applications. Includes Gateway Technical College flux cored weld certification. PREREQUISITES: Course 442-321 - Welding/Gas Metal Arc Welding

**442-333****Welding/Advanced Gas Tungsten Arc Weld****Credits: 3.00**

Provides advanced welding applications in GTAW welding using stainless steel, aluminum and mild steel. Includes Gateway Technical College aluminum tensile certification and steel plate certification. PREREQUISITES: Course 442-323 - Welding/Gas Tungsten Arc Welding

**442-334****Welding/Thermal Cutting****Credits: 3.00**

(O-A; Gas) Instructs in basic safety, equipment usage and procedures with steel and braze filler rods in the four basic welding positions. Instructs in O-A cutting; providing considerable hands-on experience as well as technical information.

**442-510****Welding Fundamentals (apprentices)****Credits: 1.00**

In this course, students explore basic welding processes. They examine safe work practices and welding machine operation. Students practice a variety of welds. Upon successful completion of the course, students will be able to safely perform basic welds.

**443-101****Forklift Operation and Maintenance****Credits: 1.00**

This course is intended to prevent accidents, injuries, and fatalities that may be caused by the improper and unsafe use of forklifts. The course will cover pre-operation, operation, and load handling by means of presentations and hands-on training. Course participants will earn certification after passing a driving test on a forklift.

**443-310****Fundamentals of Construction****Credits: 1.00**

In this course, students apply safe operating procedures to their use of hand tools and power tools for construction tasks. They interpret construction drawings, perform basic construction calculations, and practice

using test instruments to gather data on length, volume, area, depth, and dimensions. Upon successful completion of the course, students will be able to safely complete basic construction tasks using hand tools and power tools.

#### **443-311**

##### **Electrical Applications**

**Credits: 3.00**

This course introduces the student to the basics of building electrical maintenance. Repair and replacement of 110 and 220 volt electrical components are emphasized. PREREQUISITES: Complete course 605-107 - Fundamentals of Electricity/Electronics or 601-304 - Electricity and Electronics for HVAC COREQUISITES: Complete course 601-111 - Workplace Fundamentals or 443-310 - Fundamentals of Construction

#### **443-312**

##### **Carpentry and Repair, Basic**

**Credits: 2.00**

Basic construction methods and building materials are discussed. Students develop the knowledge and skills to perform a wide range of building maintenance activities. COREQUISITES: Complete course 601-111 - Workplace Fundamentals or 443-310 - Fundamentals of Construction

#### **443-313**

##### **Interior Finishing**

**Credits: 2.00**

This course will introduce the student to the basics of building interior finishing. Dry walling, painting, wall papering, and preventative maintenance will be emphasized. PREREQUISITES: Course 804-370 - Mathematics I/Applied minimum grade C or TR COREQUISITES: Complete course 601-111 - Workplace Fundamentals or 443-310 - Fundamentals of Construction

#### **443-314**

##### **Mechanical Systems**

**Credits: 2.00**

The knowledge and skills required to perform basic plumbing installations and repairs are covered. COREQUISITES: Complete course 601-111 - Workplace Fundamentals or 443-310 - Fundamentals of Construction

#### **443-315**

##### **Industrial Preventative Maintenance**

**Credits: 2.00**

This course will cover the basics of industrial preventative maintenance equipment, scheduling, and repair that will be covered in lecture and lab. COREQUISITES: Complete course 443-310 - Fundamentals of Construction or 601-111 - Workplace Fundamentals

## **444-306**

### **Swiss CNC Setup and Operation**

**Credits: 3.00**

This course will further expose students to the setup of CNC Swiss Style Lathes, tooling, and the bar feeder. The student will setup and operate CNC Swiss-Style Lathes. Parts will be machined from selected programs. This course will also require students to write and produce programs for CNC Swiss Style Lathes. The student will also produce projects on the CNC Swiss Style Lathes using these programs. Setup and cycle reduction time will also be covered.

## **444-307**

### **Fundamentals of Swiss CNC Turning**

**Credits: 3.00**

This course demonstrates the similarities and differences between conventional and Swiss turning processes. This course will also review the bar feeder, main collect, guide bushing, gang slide tools and live tool options. Controller orientation and basic programming with the discussion and demonstration of basic swiss-specific G codes will be covered. Machine operation and processes will be the main focus of this course. This course will review the characteristics of hazardous wastes and its safe handling, storage and disposal.

## **444-308**

### **Fundamentals of Live Tooling**

**Credits: 3.00**

This course is acutely aligned to provide the specific skills required to efficiently and effectively operate machines employing the 4 axis part processing to maximize machine productivity. This course covers concepts of CNC machining, set-up and operations, tooling and work-holding systems, and basics of manual part programming for drilling, milling, tapping, as well as boring operations by utilizing G codes. Hands-on practice is an integral part of the class.

## **444-309**

### **Live Tooling Setup and Operation**

**Credits: 3.00**

The course is aligned to providing the knowledge and skills required to 'translate' the part drawing into a finished product. Part programs will be created with a consistent focus on identifying those specific part features that readily lend themselves to 4 axis structured programming, and simultaneous machining. The individual will be capable of defining the list of required processes, their optimum sequential order, create the complete CNC part program, install the appropriate tools correctly, establish the program zero points, perform corresponding tool offsets, and related machine safety procedures.

## **444-311**

### **CNC Lathe Process**

**Credits: 3.00**

This course is designed to provide the knowledge and skills required to create a CNC program that will convert stock material into a finished product. The student will be capable of defining the list of required processes, their optimum sequence, create the complete CNC part program, install the appropriate tools correctly, establish the program zero point, and perform corresponding tool offsets. This course is also an advanced, hands-on study of Computer Aided Design/Computer Aided Manufacturing theory and applications using CAD/CAM software. Emphasis is placed on generating programs using advanced modeling techniques for the CNC Lathe at an intermediate level under moderate instructor supervision. The course is structured to include classroom instructional theory and hands on operation of a CNC Turning Center. PREREQUISITES: Courses 444-335 - CNC Lathe Set-Up minimum grade C or TR

#### **444-314**

##### **CNC Mill Process**

**Credits: 3.00**

This course is designed to provide the knowledge and skills required to create a CNC program that will convert stock material into a finished product on a Vertical Machining Center. The students will be capable of defining the list of required processes, their logical / optimum sequence, create the complete CNC part program, install the appropriate tools correctly, establish the program zero point, and perform corresponding tool offsets. This course is also an advanced hands-on study of Computer Aided Design/Computer Aided Manufacturing theory and applications using CAD/CAM software. Emphasis is placed on generating programs using advanced modeling techniques for the CNC Mill at an intermediate level under moderate instructor supervision. The course is structured to include classroom instructional theory and hands on operation of a CNC Vertical Machining Center. PREREQUISITES: Course 444-336 - CNC Mill Set-Up minimum grade C or TR

#### **444-315**

##### **Intro to Coordinate Measuring Machine**

**Credits: 1.00**

In this course, students use a coordinate measuring machine (CMM) to measure the geometric characteristics of physical objects. Students measure work piece sizes including diameters, lengths, and distances as well as common features such as planes, lines, points, and cylinders. Students interpret geometric dimensioning and tolerancing (GD & T). Using Calypso Software on a Zeiss CMM, students examine how CMM programs are written and executed. Upon completion of the course, students will be able to perform initial machine start up including probe calibration as well as perform alignments, measurements, dimensioning and manual operation.

#### **444-316**

##### **Foundations of CNC Machining**

**Credits: 3.00**

In this course, students investigate the operation of Computer Numerical Controlled (CNC) machines. They explore CNC Machining as subtractive manufacturing technology and analyze its methods of safe operation. Students examine the purpose of offsets and their calculation, application, and storage. They identify appropriate machine tools and cutting tools for various production processes. Using a hands-on approach in the lab, students relate the removal of material from a solid block to produce a component per specifications

outlined on a mechanical drawing or CAD model. Upon completion of the course, students will be able to apply the concepts presented to the operation of a CNC machine.

#### **444-331**

### **CNC Machining Technology**

**Credits: 3.00**

This course provides an introduction to CNC machining processes and the technology that supports them. Some of the processes covered are spot drilling, drilling, reaming, tapping, counterboring, countersinking, defining and calculating speed and feed rates, screw thread identification, and drill sharpening. Students will perform these processes on manual equipment prior to observing them on CNC equipment. Basic computer skills are also covered in this course.

#### **444-333**

### **Fundamentals of CNC Turning Applications**

**Credits: 3.00**

This course provides an introduction to CNC turning processes and their proper application. Some of the topics covered include lathe set-up and operation, lathe safety, types of lathes, lathe workholding devices, lathe cutting tools, grinding and sharpening of lathe cutters, and a review of lathe machining speeds and feeds. In this course, you will perform O.D. and I.D. turning operations on engine lathes as well as facing, drilling, reaming, tapping, grooving, chamfering, boring, knurling, tapering, and thread cutting operations.

PREREQUISITES: Course 444-331 - CNC Machining Technology

#### **444-334**

### **Fundamentals of CNC Milling Applications**

**Credits: 3.00**

This course provides an introduction to CNC milling processes and their proper application. Some of the topics covered include machine set-up and operation, machine safety, types of milling machines, use and care of various cutting tools, and a review of milling speeds and feeds. The student will perform face and end milling operations as well as drilling, reaming, tapping, and slotting operations on manual milling machines. The proper use and care of accessories, such as edge finders, digital readouts, dial indicators, and boring heads, and an introduction to a Computer Numerical Control milling machine is also covered.

#### **444-335**

### **CNC Lathe Set-Up**

**Credits: 3.00**

Students will produce and troubleshoot CNC lathe set-ups from job packets and machine parts to blueprint specifications. Students will learn simple G and M codes, download programs to machines, graphically verify programs, and prove out parts on 2-axis turning center utilizing various CNC controllers. Set-ups will include faceting, turning, drilling, grooving, and thread operations. Students will also learn to produce some simple tooling necessary to complete various set-ups.

#### **444-336**

## **CNC Mill Set-Up**

**Credits: 3.00**

Students will produce and troubleshoot CNC mill set-ups from job packets and machine parts to blueprint specifications. Students will learn simple G and M codes, download programs to machines, graphically verify programs, and prove out parts on 3-axis machining centers using various CNC controllers. Set-ups will include face, end, and profile milling and drilling, slotting, boring, and tapping operations. Students will also learn to produce some simple tooling necessary to complete various set-ups.

**444-337**

## **Fund of Blueprint and Shop Safety**

**Credits: 3.00**

In this course, students examine mechanical print-reading and shop safety. They practice reading and interpreting symbols, tolerances, and notes found on mechanical drawings. Students practice visualizing and interpreting various mechanical print views and projections. They explore safety practices and related safety documentation in the machining environment, the use of personal protective equipment, and identify unsafe work practices. Upon completion of the course, students will be prepared to earn industry certifications.

**444-338**

## **Fundamentals of CNC Machine Application**

**Credits: 4.00**

This course is designed to give students a familiarization with the necessary practices and techniques used to operate Computer Numerical Controlled (CNC) machines. Some of the topics covered include CNC machine introduction, safe practices and techniques used to remove burrs, basic CNC machine operator maintenance, and production support equipment use and operation. Topics such as machine homing, tooling used, an understanding of offsets, setting offsets, and the application of offsets in the CNC machine will also be covered. Actual run time in the lab will be provided for hands on machine operation. Students will work in groups and as individuals to gain experience in machine operation during a production run, applying theories learned to the production process. COREQUISITES: Course 444-337 - Fund of Blueprint and Shop Safety

**444-339**

## **Gauging and Quality Control**

**Credits: 3.00**

This course introduces the methods and applications of Statistical Process Control (SPC) used in manufacturing operations. Emphasis will be placed upon the concepts of central tendency, variation and normal distribution of data. The development, application, and interpretation of variable and attribute control charts will be the main focus of this course. Students will also learn to apply blueprint specifications, perform shop math calculations, understand geometric dimensions and tolerances, and correctly use different analog and digital measuring instruments, including various types of micrometers, calipers, scales, gauges (height, plug, thread, and surface roughness), and optical comparators.

**457-309**

## **Metal Fabrication I**

**Credits: 2.00**

This course provides instruction in basic fabrication techniques, tool identification, tool usage, and layout principles while preparing the student with a good foundation in fabrication. Students will build a series of projects based upon the techniques and tooling introduced. This course emphasizes the use of hands-on application-based learning to create a good foundation of understanding for seamless transition into Metal Fabrication II.

**457-336**

## **Metal Fabrication II**

**Credits: 3.00**

This course presents layout application, blueprint and weld symbol interpretation, welding, fabrication, equipment set ups, and operation skills to safely complete metal fabrications. Selection of fabrication equipment and its safe operation is emphasized. Tools and techniques used in metal fabrication are introduced and students practice their use. PREREQUISITES: Take 442-309 OR 457-309 - Metal Fabrication I Take 442-322 - Welding/Shielded Metal Arc Welding OR 442-323 - Welding/Gas Tungsten Arc Welding Take 442-324 - Weld Printreading and Fabrication Procedures Take 442-321 - Welding/Gas Metal Arc Welding

**457-337**

## **Metal Fabrication III**

**Credits: 3.00**

This course provides instruction in advanced fabrication techniques in fixture and jig building, advanced pattern/buck design and construction, and an opportunity for a capstone group project. Students will be responsible for making a fixture and/or jig based off of their design and then create multiple parts to ensure repeatability of the part. This course will be extensively hands-on and application-based. PREREQUISITES: Complete course 804-370 - Mathematics I/Applied COREQUISITES: Complete course 457-336 - Metal Fabrication II

**458-301**

## **CDL & Inspection Law and Logistics**

**Credits: 3.00**

In this course, students examine laws related to the commercial driver's license (CDL) and the operation of a commercial motor vehicle (CMV). Through simulation and hands-on learning experiences, students explore vehicle systems, inspect and operate a CMV safely, and investigate the operations of a tractor semi-trailer. By the completion of the course, students must obtain a CDL instruction permit. PREREQUISITES: Student must be accepted to program 30-458-1, Truck Driving, to be eligible to register for this course.

**458-302**

## **CDL License, Driving Skills, Safety**

**Credits: 4.00**

In this course, students practice driving skills in anticipation of obtaining a commercial driver's license (CDL). Students enhance their skills by driving in a variety of situations and environments they will encounter as a professional driver. They investigate topics related to trip planning, loading procedures, weight distribution techniques, and security issues. Upon completion of the course, students will be able to properly inspect and safely operate a commercial motor vehicle (CMV) in controlled settings. PREREQUISITES: Take 1 group; Take 458-301 - CDL & Inspection Law and Logistics; Minimum grade B-; Take 458-301 - CDL & Inspection Law and Logistics; From rule TRANGEB-;

### **458-303**

#### **Continuous Improvement & Hazard Safety**

**Credits: 3.00**

In this course, students improve their operating skills required for the day-to-day demands of the career. Students examine the truck driver's role as a professional. Students apply transportation rules and regulations as they relate to safety, special rigs, and hazardous material. Students must obtain a commercial driver's license (CDL) to successfully complete the course. PREREQUISITES: Complete course 458-302 - CDL License, Driving Skills, Safety with a minimum grade of B-;

### **461-120**

#### **Small Power Equipment**

**Credits: 3.00**

Structure and theory of the two and four cycle engines. Troubleshooting, storage, maintenance, and repair of the small gas engine are included. Safety of the operator is stressed along with the use and study of operator's manuals for small power equipment.

### **461-301**

#### **Hydraulic Systems**

**Credits: 3.00**

In this course, students will examine mobile hydraulic systems. Various hydraulic components, schematics, and terminology will be explored. Upon completion of the course, students will be able to maintain and diagnose various mobile hydraulic systems. PREREQUISITES: Complete course 461-307 - Fundamental Shop Skills with minimum grade of C

### **461-302**

#### **Inboard Engines**

**Credits: 2.00**

In this course, students will examine inboard fuel systems, ignition systems, cooling systems, starting systems, and charging systems. Four-stroke marine engine operations will be investigated. Upon completion of the course, students will be able to repair and maintain four-stroke inboard engines. PREREQUISITES: Take 461-120 - Small Power Equipment Take 461-307 - Fundamental Shop Skills

### **461-303**



## **Light Motorcycle Service**

**Credits: 3.00**

In this course, students will examine components and systems unique to motorcycles. Fuel, ignition, suspension, and power train systems will be investigated. Students will apply basic techniques and procedures of small engine service and perform regular maintenance and adjustments to motorcycles. Upon completion of this course, students will be able to perform preventative maintenance and diagnose problems unique to motorcycles. PREREQUISITES: Course 804-370 - Mathematics I/Applied

## **461-304**

### **Outboard Engines**

**Credits: 3.00**

In this course, students will examine fuel systems, ignition systems, manual and electric starting systems, and charging systems. Lower unit/propulsion systems will be explored. Students will investigate rigging and lifting. Upon completion of the course, students will be able to safely repair and maintain two-stroke and four stroke outboard engines. PREREQUISITES: Course 804-370 - Mathematics I/Applied minimum grade D COREQUISITES: Course 801-301 - Writing Principles

## **461-306**

### **Recreational Equipment Maintenance**

**Credits: 2.00**

In this course, students will examine components and systems unique to recreational equipment. Fuel, ignition, and suspension systems will be investigated. Trailer systems will be examined. Students will apply basic techniques and procedures of recreational equipment and perform regular maintenance and adjustments. Upon completion of this course, students will be able to perform preventative maintenance and diagnose problems unique to recreational equipment. COREQUISITES: Complete course 461-307 - Fundamental Shop Skills previously or concurrently

## **461-307**

### **Fundamental Shop Skills**

**Credits: 2.00**

In this course, students will investigate the safe use and proper care of common hand and power tools. General drilling, tapping, threading and precision measurement techniques will be presented. Students will operate forklifts safely. Upon successful completion of the course, students will receive forklift operators certification, Safety and Pollution Prevention (S/P2) certification, and be prepared to seek Starrett Measurement certification.'

## **462-503**

### **Industrial Mechanic Fundamentals I**

**Credits: 1.00**

The application and safe operation of hand and power tools will be explored in this course. The care and use of precision measuring tools and their application will also be covered.

#### **462-504**

##### **Industrial Mechanic Fundamentals II**

**Credits: 1.00**

Manual machine operation will be explored in this course. Practical tasks and assignments will be performed on the drill press, lathe, and milling machine.

#### **462-515**

##### **Basics of Machine Leveling and Geometry**

**Credits: 1.00**

Learning is accomplished by using a combination of lecture and practical lab work. The basic principles of machine leveling and geometry will be explored.

#### **469-311**

##### **Equipment Operations Introduction**

**Credits: 2.00**

This class submerses the student into the job tasks required by a utility worker on an active site. The students will apply their knowledge of site safety and perform the various tasks required by the utility laborer, equipment-operator and crew lead. Students will operate under supervision back hoes, trenchers, directional drills, piercing tools and air compressors in field activities. Proper backing, loading and unloading of trailered loads will also be covered. COREQUISITES: Complete course 469-302

#### **469-312**

##### **Field Operations**

**Credits: 3.00**

This field activities class requires students to perform complex field tasks such as pipe location; pipe burial; installation and repair of main, branch or service runs; trench compaction and utility covering while being supervised. Also included will be exercises in meter and regulator setting, leak testing and piping integrity using both common hand and powered machinery. PREREQUISITES: Take 804-370 - Mathematics I/Applied Take 469-302

#### **469-313**

##### **Gas Utility Tool Fundamentals**

**Credits: 1.00**

This course immerses the student in basic tool usage designed around the gas utility trades. The learners will learn proper tool identification, proper names of these tools, and proper usage of these tools to ensure a safe and efficient work site.

**469-314****Plastic Piping****Credits: 3.00**

This course covers the history of polyethylene (PE) piping in the gas industry and the proper handling, storage and uses of PE pipe. The students will learn the fusion processes common to the industry: such as butt, socket and the use of saddles. The students will also learn the techniques used used in the electrofusion process. The students will learn to identify proper joining processes, construct various industry connections that can withstand pressure testing and when cut apart for inspection will pass various test standards. Mechanical stab fittings for pipe connection will also be covered.

**475-300****Building Construction, Introduction to****Credits: 3.00**

This course presents the varieties, identification, characteristics and uses of wood in the construction industry. Material measurement is introduced. Common fasteners, nails, screws and staples and their appropriate use are examined. Principles of construction safety are discussed and safe operation of power tools is demonstrated.

**475-301****Building Construction, Fundamentals****Credits: 5.00**

This course introduces the operation of power woodworking machines, portable power equipment, and hand tools. Safety is emphasized. Fasteners common to the construction industry are presented and studied. Site layout and the use of the builder's level, builder's transit, and the laser transit are explored. Building foundations, concrete and formwork are examined.

**475-302****Residential Print Reading****Credits: 2.00**

This course presents the symbols, notations, abbreviations, and conventions that are the architectural language, and acquaints the student with the basic concepts on which residential construction drawings are read and interpreted.

**475-303****Framing Techniques I****Credits: 3.00**

This course presents frame construction techniques related to floor systems and staircases.

**475-304**

## **Commercial Print Reading**

**Credits: 1.00**

This course is designed to provide print reading experience in commercial construction. Students will review concepts regarding elements commonly found on prints of commercial structures. Included are types of construction, sitework, structural steel construction, reinforced concrete construction and finish construction. PREREQUISITES: Course 475-302 - Residential Print Reading COREQUISITES: Course 801-301 - Writing Principles

## **475-305**

### **Framing Techniques II**

**Credits: 3.00**

This course presents wall layout and framing, rough-opening calculations and layouts for windows and doors. The principles of roof framing including architectural drafting of plan and elevation views for roofs are examined. Principles of layout and cutting of all roof framing members for both equal and unequal pitch roofs are presented. The Wisconsin Uniform Dwelling Code is explored in relation to wall and roof construction. PREREQUISITES: Take 475-303 - Framing Techniques I COREQUISITES: Take 804-370 - Mathematics I/Applied

## **475-306**

### **Exterior Trim**

**Credits: 3.00**

This course presents the skills and theory related to roof cornice detail, roof coverings, windows, skylights, doors, and decks. Exterior finish methods are explored. PREREQUISITES: Take 475-301 - Building Construction, Fundamentals OR 475-308 - Fundamentals of Wood Construction Take 475-302 - Residential Print Reading

## **475-307**

### **Interior Trim**

**Credits: 5.00**

This course presents techniques for interior trim, mitering, coping and scribing. Door hanging is examined and performed. Newel post, balustrades and handrails are studied and installed. The Wisconsin Uniform Dwelling Code is explained and emphasized. Solid wood flooring is studied along with several ceiling tile applications. Installation of cabinets is examined and performed. PREREQUISITES: Take 475-301 - Building Construction, Fundamentals Take 475-302 - Residential Print Reading

## **475-308**

### **Fundamentals of Wood Construction**

**Credits: 3.00**

In this course, learners explore the fundamentals of wood construction. They determine elevations, examine fasteners, and practice using hand and power tools safely. Upon completion of the course, learners will be able to explain the type and purpose of fasteners and use tools safely for their intended purpose.

## **475-309**

## **Fundamentals of Concrete**

**Credits: 3.00**

In this course, learners explore the physical properties of concrete. They practice laying out concrete walls and footings. They explore curing methods and materials, and they analyze reinforcement methods and materials. Upon completion of the course, learners will be able to layout footings and wall foundations and set up concrete forms for a house foundation. COREQUISITES: Take 475-308 - Fundamentals of Wood Construction

**475-310**

## **Interior Finish Trim**

**Credits: 3.00**

In this course, learners explore interior trim. They install doors, trim work, counters, and countertops. Learners explore the construction of cabinets and countertops. Upon successful completion of this course, learners will be able to install interior trim.

**475-311**

## **Interior Coverings**

**Credits: 3.00**

In this course, learners explore interior coverings. They construct interior stairs, install floor finishing, install ceiling tiles, install drywall and install handrails. Upon successful completion of this course, learners will be able to install interior coverings. COREQUISITES: Take 475-310 - Interior Finish Trim

**482-112**

## **Sustainable Energy-Capstone Design Proj**

**Credits: 3.00**

The Sustainable Energy: Capstone Design Project course will tie together the topics covered in the 'Introduction to Sustainable Energy' course and the 'Sustainable Energy: The Generation of Electricity' course through the development of the design and implementation of a sustainable energy project. PREREQUISITES: Course 482-110

**483-178**

## **Geological Formations for Drillers**

**Credits: 3.00**

This course introduces the student to the complex field of geology as it relates to borehole construction. The types of consolidated and unconsolidated formations, the regional occurrence, the most efficient drilling process for each as well as basic rock identification and sample classification for logging purposes are covered. Sources of possible contamination and the protection of subsurface groundwater from the drilling process or surface contaminants are covered.

**483-180**

## **Rig Transport, Set-Up and Safety**

**Credits: 2.00**

This course covers the safety and regulatory issues regarding the transportation and commissioning of standard industry drilling/boring rigs for GeoExchange borehole construction. DOT issues concerning weight, trailering, CDL licensure etc. are covered. Site safety to minimize environmental impact of rig, drilled spoils and personnel protection from overhead and underground hazards are also covered.

**487-100****Introduction Unmanned Aircraft Systems****Credits: 2.00**

This class provides students with the educational knowledge for federal, state, and local regulations regarding the operations of Unmanned Aircraft Systems (UAS), This class provides the educational background pertaining towards passing the FAA Part 17 remote pilot written certification. In addition to the written certification, this class provides students with direct hands on experience with documentation and operational control of drones. This provides the experience operational training needed towards passing Gateway's UAS Flight Certification.

**487-101****Drone Operations and Mapping****Credits: 2.00**

This course prepares students for the remote pilot license exam required by the FAA for any 'non-hobby or non-recreational' use of small Unmanned Aircraft Systems, drones. This course also provides hands-on flying experience to develop drone piloting skills, and introduces how to create maps from drone aerial photos.

PREREQUISITES: Course 487-100 - Introduction Unmanned Aircraft Systems

**501-101****Medical Terminology****Credits: 3.00**

This course focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms, with an emphasis on spelling, definition, and pronunciation. They are introduced to operative, diagnostic, therapeutic, and symptomatic terminology of all body systems, as well as systemic and surgical terminology. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or achieve the required placement test score

**501-107****Digital Literacy for Healthcare****Credits: 2.00**

The focus of this course is the use of technology in healthcare. Learners use common business software applications, including word processing, presentation, spreadsheet, and databases. Communication methods using technology are addressed. Learners gain experience with using the electronic health record (EHR). Healthcare EHR security issues, social media use, and digital healthcare resources are examined.

## **502-301**

### **Shampoo Treatments**

**Credits: 1.00**

Theory and practical training in shampooing, scalp massage, scalp and hair analysis, and procedures for treating scalp and hair conditions. Students apply knowledge and skills on customers in patron laboratory to complete competencies in subject areas.

## **502-308**

### **Salon Service 5 Perming**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of basic perming and texture skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

## **502-309**

### **Salon Service 6 Men's Haircutting**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of men's haircutting skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

## **502-310**

### **Salon Service 7 Hair Color**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of hair color skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

## **502-311**

### **Salon Service 10 Interpersonal Skills**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of interpersonal skills. PREREQUISITES: Courses 502-

301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-312**

#### **Barber/Cosmetology/Introduction to**

**Credits: 1.00**

This course provides knowledge in the general subjects pertaining to barber/cosmetology, including: bacteriology, sanitation, anatomy and physiology, Wisconsin laws, basic chemistry, and electricity.

### **502-320**

#### **Basic Manicuring**

**Credits: 1.00**

Students will receive theory and practice training in basic and advanced manicuring, pedicuring, and nail art procedures and techniques.

### **502-324**

#### **Barber/Cosmetology Industry**

**Credits: 2.00**

This course is designed as a complete program of business instruction for the barber/cosmetology student. It supplements the usual technical training required in career development.

### **502-330**

#### **Barber/Cosmetology Additional Hours - 2 Credits**

**Credits: 2.00**

For students who meet Barber/Cosmetology training requirements in other states who wish to complete additional hours for Wisconsin licensure. Students are evaluated per Wisconsin requirements, complete training on patron lab floor and complete a mock state board.

### **502-337**

#### **Manicure/Nail Technician I**

**Credits: 4.00**

Theory and practical training in basic and advanced manicuring, pedicuring and nail art procedures and techniques. Students apply knowledge and skills on clients in a simulated salon environment to complete the competencies in subject area. Students completing both Manicure/ Nail Technician courses are eligible to take a state board examination for a manicurist license. PREREQUISITES: Student must be accepted to certificate 90-502-1, Nail Technician, to be eligible to register for this course. COREQUISITES: TAKE 502-338 - Manicure/Nail Technician II

### **502-338**



## **Manicure/Nail Technician II**

**Credits: 5.00**

Theory and practical training in basic and advanced artificial nail procedures and techniques. Students apply knowledge and skills on clients in a simulated salon environment to complete competencies in subject area. PREREQUISITES: Student must be accepted to certificate 90-502-1, Nail Technician, to be eligible to register for this course. COREQUISITES: TAKE 502-337 - Manicure/Nail Technician I

### **502-345**

#### **Basic Hair Color**

**Credits: 2.00**

Theory and practical training in haircoloring techniques, procedures, and formulations.

### **502-347**

#### **Bleaching**

**Credits: 2.00**

Theory and practical training in bleaching techniques, procedures, and stages of lightening hair. PREREQUISITES: Course 502-345 - Basic Hair Color

### **502-348**

#### **Chemical Straightening**

**Credits: 2.00**

Theory and practical training in chemical and related hair relaxing techniques and procedures. PREREQUISITES: Course 502-353 - Perm Techniques

### **502-349**

#### **Facials**

**Credits: 2.00**

Theory and practice training in facial massage, skin care, basic and corrective makeup application, eyebrow arching, waxing, lash and brow tinting, and seasonal color analysis.

### **502-350**

#### **Hair Design 1**

**Credits: 2.00**

Theory and practice training in artistic design, setting, and finishing techniques. Use of blow dryer, curling iron, and rollers.

### **502-351**

#### **Hair Design 2**

**Credits: 2.00**

Theory and practical training in wigs and hair pieces, hair pressing, and long hair designs.

**502-352**

**Men's Haircutting**

**Credits: 2.00**

Theory and practice training in haircutting concept, basic form techniques, and mustache and beard trims. Use of clippers, scissors, and thinning shears is included. PREREQUISITES: Course 502-366 - Women's Haircutting

**502-353**

**Perm Techniques**

**Credits: 2.00**

Theory and practical training in basic and advanced permanent waving procedures.

**502-354**

**Salon Service 1 Facial Skin Care**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of facials and skin care. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-347 - Bleaching, 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

**502-355**

**Salon Service 2 Nail Skills**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of basic nail service skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-347 - Bleaching, 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

**502-356**

**Salon Service 3 Long Hair Design**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of hairstyling and finishing techniques on long hair.

PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-361**

#### **Salon Service 8 Hairstyling**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of hairstyling and finishing techniques.

PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-362**

#### **Salon Service 9 Chemical Relaxing**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of chemical straightening and texture skills.

PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-364**

#### **Salon Service 11 Bleaching**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of bleaching and special effects skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-347 - Bleaching 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-365**

#### **Salon Service 12 Shampoo**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of shampooing skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-34,7 502-348 -

Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-366**

#### **Women's Haircutting**

**Credits: 2.00**

Theory and practice training in hair cutting concepts and basic form techniques. Use of tools such as scissors, razors, and thinning shears.

### **502-367**

#### **Salon Service 4 Women's Haircutting**

**Credits: 1.00**

In this course, students will be required to perform all client service skills in the student salon, with the concentration and evaluation being on the performance of women's haircutting skills. PREREQUISITES: Courses 502-301 - Shampoo Treatments, 502-345 - Basic Hair Color, 502-320 - Basic Manicuring, 502-347 - Bleaching 502-348 - Chemical Straightening, 502-349 - Facials, 502-350 - Hair Design 1, 502-351 - Hair Design 2, 502-352 - Men's Haircutting, 502-353 - Perm Techniques, and 502-366 - Women's Haircutting with a minimum grade of C or TR

### **502-370**

#### **Mock Board Skills**

**Credits: 2.00**

The Mock Board skills course is designed to prepare the student for the practical portion of the Wisconsin Cosmetology State Board exam. Students will practice Practical skills on mannequins to gain accuracy and speed in each service area required to successfully pass the exam. Students will complete a final practical exam for the Cosmetology program.

### **502-371**

#### **Mock Board Theory**

**Credits: 1.00**

The Mock Board Theory course is designed to prepare the student for the written portion of the Wisconsin Cosmetology state board exam. Students will acquire study skills and practice test taking skills on computers to retain information necessary to successfully pass the exam. Students will complete a final written exam for the Cosmetology program.

### **502-380**

#### **Eyelash Extensions**

**Credits: 1.00**

In this course, students examine eyelash extensions. They explore the anatomy and physiology of eyes and eyelashes and practice eyelash application and removal techniques. Students analyze methods of disinfection,

safety, and infection control. They explore marketing and client management. Upon completion of the course, students will receive a certificate of completion, and they will be able to skillfully apply eyelash extensions.

### **502-508**

#### **People Skills**

**Credits: 0.25**

This course provides the student with the fundamental skills needed to understand and communicate with people. Instruction will be mainly theoretical and will follow a lecture discussion format.

### **502-509**

#### **Shaving/Male Facials**

**Credits: 0.50**

This course is designed to enable the student to acquire the theory requirements for male facials as mandated by the Wisconsin Statutes and Administrative Codes. Instruction will be mainly theoretical and will follow a lecture/discussion format. Some demonstrations of practical skill will be included in the lectures.

### **502-518**

#### **Haircutting for Cosmetology Apprentice**

**Credits: 1.00**

This course is designed to enable the apprentice student with theory knowledge of haircutting as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Instruction will be mainly theoretical and follow a lecture/discussion format. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

### **502-519**

#### **Hairstyling for Cosmetology Apprentice**

**Credits: 1.00**

This course is designed to enable the apprentice student with theory knowledge of hairstyling as mandated by the Wisconsin Statutes and Administrative Code for the Cosmetology Examining Board. Instruction will be mainly theoretical and follow a lecture/discussion format. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

### **502-522**

#### **COS Professional Development**

**Credits: 0.50**

This course is designed to provide fundamental guidelines for lifelong professional development. Instruction will be mainly theoretical and will follow a lecture/discussion format.

### **502-523**

#### **Salon Ecology for Cosmetology App**

**Credits: 0.50**

This course is designed to give the student a foundation for safe infection control practices and procedures that will be used in all aspects of the students' education and future salon pursuits as mandated by the Department of Safety and Professional Services. Instruction will be mainly theoretical and will follow a lecture/discussion format.

**502-524****Trichology for Cosmetology App****Credits: 0.50**

This course provides fundamental knowledge regarding the phases of hair growth, common hair disorders, causes and treatments of hair loss as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Instruction will be mainly theoretical and will follow a lecture/discussion format.

**502-525****Shampoo/Haircare for Cosmetology App****Credits: 0.50**

This course is designed to enable the apprentice student with theory knowledge of Shampoo/Hair Care, and the skills needed during draping, shampooing, and scalp massage procedures as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining board. Instruction will be mainly theoretical and follow a lecture/discussion format. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

**502-543****Permanent Waving for Cosmetology App****Credits: 0.75**

This course is designed to enable the apprentice student with theory knowledge of Permanent Waving as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Instruction will be mainly theoretical and follow a lecture/discussion format. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

**502-544****Chemical Relaxing for Cosmetology App****Credits: 0.50**

This course is designed to enable the apprentice student with theory knowledge of chemical relaxing as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Instruction will be mainly theoretical and follow a lecture/discussion and hands on performance format.

**502-545****Haircolor/Hair Lightening for Cos App**

**Credits: 1.00**

This course is designed to enable the apprentice student with theory knowledge of haircoloring/hair lightening as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

**502-547****Facial/Makeup/Skin Disorders for Cos****Credits: 1.00**

This course is designed to enable the apprentice student with theory knowledge of facial, makeup, skin disorders and massage as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. Instruction will be mainly theoretical and follow a lecture/discussion format. Some demonstrations of practical skills will be included within lectures. Both individual and group assignments will be required to reinforce instruction.

**502-548****Manicure/Pedicure/Artif Nails for Cos****Credits: 1.00**

This course will provide the Apprentice student with knowledge of Manicuring/Pedicuring and artificial nails as mandated by the Wisconsin Statutes and Administrative Codes for the Cosmetology Examining Board. The class will be taught by the following methods: lecture, discussion, demonstration and hands on performance.

**502-560****Barber/Cosmetology State Board Preparation****Credits: 0.25**

This course is designed to prepare the Apprentice Student for taking the State Board Exam. A practical mock exam will be given to acquaint the student with the procedures for testing. There will be a hands-on and a written test.

**502-561****Mock State Board Prep****Credits: 0.25**

This class is designed to help Barbers and Cosmetologists successfully pack for their state board. It is designed to leave the guessing at the door so you know up front what is needed for each portion of the practical test, and how to label and assemble tools and materials. COREQUISITES: Course 502-560 - Barber/Cosmetology State Board Preparation

**502-580****Tricology for Barbering****Credits: 0.50**

This course provides fundamental knowledge regarding the phases of hair growth, common hair disorders and causes and treatments for hair loss. Instruction will be mainly theoretical and will follow a lecture/discussion format.

**502-581**

**Professional Development for Barbering**

**Credits: 0.25**

This course is designed to provide fundamental guidelines for lifelong professional development and personal development. Instruction will be mainly theoretical and will follow a lecture/discussion format.

**502-582**

**Hair Styling for Barbering**

**Credits: 1.00**

This course will provide the Apprenticeship student with knowledge of Hairstyling set by the guideline of the Wisconsin Statutes and Administrative Codes for the Barbering Examining Board. The class will be taught by the following methods: lecture, discussion, demonstration, and hands-on performance.

**502-583**

**Shampoo for Barbering**

**Credits: 0.50**

This course provides the student with fundamental knowledge of hair care and the skills needed during draping, shampooing, and scalp massage procedures.

**502-584**

**Skin Related Disorders for Barbering**

**Credits: 0.25**

This course is designed to enable the Apprentice student to acquire the theory requirements for Skin/Related disorders as mandated by the Wisconsin Statutes and Administrative Codes for the Barbering Examining Board. Instruction will be mainly theoretical and will follow a lecture /discussion format. Both individual and group assignments will be required to reinforce instruction.

**502-586**

**Hair Cutting for Barbering**

**Credits: 1.25**

This course is designed to enable the Apprentice student to acquire the theory requirements as mandated by the Wisconsin Statutes and Administrative Codes for the Barbering Examining Board. Instructional will be mainly theoretical and will follow a lecture/discussion format. Some demonstrations of practical skills will be included within the lectures. Both individual and group assignments will be required to reinforce interaction.

**502-587**



## **Barbering Codes**

**Credits: 0.25**

This course is designed to enable students to acquire knowledge of the Wisconsin laws and Administrative Code that governs the state Barbers. Instruction will be theoretical and will follow a lecture/discussion format.

**502-588**

## **Barbering Laws**

**Credits: 0.25**

This course is designed to enable students to acquire knowledge of the Wisconsin Rules of the Department of Regulations and Licensing.

**502-589**

## **Salon Ecology for Barbering**

**Credits: 0.50**

This course is designed to give the student a foundation for safe and infection control practices and procedures that will be used in all aspects of the student's education and future salon pursuits. Instruction will be mainly theoretical and will follow a lecture/discussion format.

**502-590**

## **Chemical Relaxing for Barbering**

**Credits: 0.25**

This course will provide the Apprentice student with knowledge of chemical relaxing theory set by barber examining Board and the Wisconsin Statutes and Administrative Codes. This class will be taught by the following methods: lecture, discussion, demonstration, and hands-on performance.

**502-592**

## **Perming for Barbering**

**Credits: 1.00**

This course is designed to enable students to acquire knowledge of Permanent Waving. Instruction will be theoretical and will follow a lecture/discussion format, with demonstrations and hands-on performance.

**502-593**

## **Hair Color for Barbering**

**Credits: 1.00**

This course is designed to enable the Apprentice Student to acquire the theory requirements for Hair Coloring as mandated by the Wisconsin Statutes and Administrative Codes for the Barbering Examining Board. Instruction will be mainly theoretical and will follow a lecture. Discussion format. Some demonstrations of Practical skills will be included with the lectures. Both individual and group assignments will be required.

## **502-594**

### **Bleaching for Barbering**

**Credits: 0.25**

This course is designed to enable the Apprentice Student to acquire the theory requirements for Bleaching as mandated by the Wisconsin Statutes and Administrative Codes for the Barbering Examining Board. Instruction will be mainly theoretical and will follow a lecture. Discussion format. Some demonstrations of Practical skills will be included with the lectures. Both individual and group assignments will be required.

## **502-730**

### **Client Services 1 Haircutting**

**Credits: 2.00**

This course introduces client services performed by the barber. Emphasis is on hair and scalp analysis, shampooing, haircutting techniques, shaving, and chemical services. Students will apply knowledge and skills to provide all barber services on customers in the client lab. Skill development, increased speeds, and greater accuracy will be assessed in these lab courses. PREREQUISITES: TAKE 502-735 - Advanced Haircutting TAKE 502-738 - Basic Haircutting TAKE 502-739 - Chemical Texturing TAKE 502-740 - Hair Color TAKE 502-741 - Hairstyling TAKE 502-743 - Shaving

## **502-731**

### **Client Service 2 Chemical Services**

**Credits: 2.00**

In this course students explore client services performed by the barber. Emphasis is on hair and scalp analysis, shampooing, haircutting techniques, shaving, facial services, and chemical services. Students will apply knowledge and skills to provide all barber services on customers in the client lab. Skill development, increased speeds, and greater accuracy will be assessed in these lab courses. PREREQUISITES: TAKE 502-735 - Advanced Haircutting TAKE 502-738 - Basic Haircutting TAKE 502-739 - Chemical Texturing TAKE 502-740 - Hair Color TAKE 502-741 - Hairstyling TAKE 502-743 - Shaving

## **502-732**

### **Client Service 3 Male Facial/Shaving**

**Credits: 2.00**

In this course students practice building speed and accuracy in client services performed by the barber. Emphasis is on haircutting techniques, shaving, facial services, and chemical services. Students will apply knowledge and skills to provide all barber services on customers in the client lab. Skill development, increased speeds, and greater accuracy will be assessed in these lab courses. PREREQUISITES: TAKE 502-735 - Advanced Haircutting TAKE 502-738 - Basic Haircutting TAKE 502-739 - Chemical Texturing TAKE 502-740 - Hair Color TAKE 502-741 - Hairstyling TAKE 502-743 - Shaving

## **502-733**

### **Client Service 4 Mock Board Skills**

**Credits: 2.00**

In this course students enhance speed and accuracy in client services performed by the barber. Emphasis is on haircutting techniques, shaving, facial services, and chemical services. Students will apply knowledge and skills to provide all barber services on customers in the client lab and begin preparation for Wisconsin State Barber licensing exam. PREREQUISITES: TAKE 502-735 - Advanced Haircutting TAKE 502-738 - Basic Haircutting TAKE 502-739 - Chemical Texturing TAKE 502-740 - Hair Color TAKE 502-741 - Hairstyling TAKE 502-743 - Shaving

**502-734****Client Service 5 State Board Prep****Credits: 2.00**

This course provides students with opportunities to acquire barbering skills in preparation for entry-level, licensed employment. Emphasis is on providing services with speed and accuracy including: hair and scalp analysis, shampooing, haircutting, shaving, facial services, and chemical services. Students will apply knowledge and skills to provide all barber services on customers in the client lab and complete preparation for Wisconsin State Barber licensing exam. PREREQUISITES: TAKE 502-735 - Advanced Haircutting TAKE 502-738 - Basic Haircutting TAKE 502-739 - Chemical Texturing TAKE 502-740 - Hair Color TAKE 502-741 - Hairstyling TAKE 502-743 - Shaving

**502-735****Advanced Haircutting****Credits: 2.00**

This course is designed to provide skills relating to men's haircutting. Course competencies include demonstrating draping; Afro haircuts; flat top and crew cut haircuts; fade haircuts; and head shaving. Learners perform four basic haircutting techniques using shears, razor and clippers. Learner will perform a variety of shorthair combination cuts using finger-and shear, comb-over-shear, shear-over-comb and freehand techniques. Additional techniques include long-layered haircut techniques; uniform layer haircut techniques; combination cut techniques; short taper cut using finger and shear techniques; short taper cut using shear-over-comb techniques; taper cut using clipper-over-comb techniques; and haircutting for tightly curled hair. PREREQUISITES: Course 502-738 - Basic Haircutting

**502-736****Barber Industry****Credits: 2.00**

This course guides the barber on a career path that includes skills related to career strategies and the job search, the basics of managing a successful establishment, developing a marketing plan, and the responsibilities of adhering to the Wisconsin Statutes and Administrative Code. This course also provides an overview of the profession of barbering, professional image, safety and decontamination in the barbershop. Course competencies include examining the importance of barbering organizations and the Department of Safety and Professional Services; comparing professional ethics and personal ethics; developing short term and long term goals; reviewing basic first aid, safety and decontamination principles for infection control; introducing current state statutes and rules as they apply to barber safety and sanitation; and learning decontamination procedures for tools, equipment and surfaces.

## **502-738**

### **Basic Haircutting**

**Credits: 2.00**

This course will provide students with knowledge of the art and science of haircutting. Students will identify principal tools and implements, apply haircutting terminology, recognize facial shapes and anatomical features, and learn techniques to create a variety of haircutting designs. Students will apply safety and sanitation procedures adhering to the Wisconsin Statutes and Administrative codes. This course also introduces a combination of haircutting techniques and tools. Learners perform four basic haircutting techniques using shears, razor and clippers. Learner will perform a variety of shorthair combination cuts using finger-and-shear, comb-over-shear, shear-over-comb and freehand techniques.

## **502-739**

### **Chemical Texturing**

**Credits: 2.00**

This course will provide students to acquire knowledge of permanent waving. Course competencies include performing hair and scalp analysis; follow safety and sanitation procedures; explaining the physical and chemical actions that take place during chemical texture services; perform the basic perm wrap, curvature wrap, spiral wrap, bricklay wrap, and double-tool/piggy back wrap; hair relaxing applications and procedures, and reformation curl/chemical blow-out services. This class includes the following instructional methods: lecture, discussion, demonstration, and hands-on performance.

## **502-740**

### **Hair Color**

**Credits: 2.00**

Students study the color wheel and the theory behind the 'Law of Color.' Students mix and apply temporary, semi-permanent, demi-permanent and permanent colors; Students identify the chemicals used in hair coloring services. Students practice client consultations, analysis and follow safety and sanitation procedures. Students learn procedures related to lightening techniques. They identify the products used to create and maintain these types of services. Students learn the chemistry to lightening products. They learn cap, foiling and corrective color procedures.

## **502-741**

### **Hairstyling**

**Credits: 2.00**

This course emphasizes wet and dry hairstyling and includes hair analysis, shampooing, conditioning, reconditioning, scalp and hair treatments, and blow drying. Course competencies include analyzing the condition of a client's hair; personalizing scalp and hair treatments based on client needs; completing shampoo services; completing hair conditioning treatments; create blow-dry styles; and braid hair according to client needs. This course also emphasizes fingerwaves, pincurls, roller setting, thermal styling, and hair replacement techniques. Content also includes applying basic techniques and terminology used in hairstyling; creating

fingerwaves; arranging hair using pincurls; performing roller sets; demonstrating thermal styling; and demonstrating hair replacement techniques.

### **502-742**

#### **Barbering, Intro to**

**Credits: 1.00**

Students will study microbiology, electricity, anatomy, physiology and chemistry, along with properties and disorders of the skin and scalp as these apply to barbering. Course competencies include reviewing the human systems important to barbering, diseases, and conditions; learning about bacteria; categorizing chemicals and their use in the barbering establishment; verifying diseases and disorders of the hair and scalp; and examining common electrical devices used in barbering establishments. This course also introduces current state statutes and rules as they apply to barber safety and sanitation; and learning decontamination procedures for tools, equipment and surfaces.

### **502-743**

#### **Shaving**

**Credits: 2.00**

Students will apply safety and sanitation, facial physiology, and techniques to create a variety of facial hair designs and complete facial hair removal. Course competencies include proper infection control procedures and client safety; draping clients for facial hair services; using facial hair service tools; analyzing skin types and conditions; adapting facial hair designs for individual facial features and physiology; completing facial hair designs; and completing facial hair removal. In this course the student will analyze the skin for diseases and disorders. The learner will identify facial muscles and nerves and explain the benefits of facial massage and treatments. Students will demonstrate a male facial using a variety of products and equipment based on skin analysis and complete male facials correctly.

### **503-106**

#### **Firefighting Principles II**

**Credits: 3.00**

This course is structured for competency-based instruction meeting the requirements of Firefighter Level II. It includes classroom and practical training sessions and meets the objectives of the Wisconsin's Firefighter II certification course. Hazardous Materials Operations is included in this course. Upon completion, students are encouraged to take the certification exam for Firefighter II, State of Wisconsin. PREREQUISITES: Course 503-142 - Firefighting Principles I or 503-720

### **503-117**

#### **Health and Wellness for Firefighters**

**Credits: 3.00**

Students gain an overview of the physical, emotional, intellectual, and social dimensions of health and sustained wellness. They apply physical training techniques developed for the specific occupational demands of the Fire Service. Students will prepare for the Fire Service Candidate Physical Ability Test (CPAT), which is

designed to help fire departments measure the physical ability of candidates to perform routine fire fighting tasks.

### **503-120**

#### **Fire Science Student Internship**

**Credits: 2.00**

This course allows students to actively participate as a 'working' member of a fire department. Students work the 24-hour shift schedule at a local fire department (excluding class times) and perform the same duties as the firefighters. Evaluation is determined by fire department officials and the course instructor. Instructor approval required to establish class schedule. PREREQUISITES: Course 503-142 - Firefighting Principles I

### **503-127**

#### **Fire Service Changing Technologies**

**Credits: 2.00**

This course concentrates on the identification and application of the ever-changing advancement in technology and its impact on the fire service. Students will investigate and use applications and equipment that are reflective of the most recent advancements in fire service technology including; computerized hardware, software, digital media and fire department equipment.

### **503-130**

#### **Firefighter Health & Wellness**

**Credits: 2.00**

In this course, students examine fire service health and wellness issues. Through an examination of how, when, where, and why firefighters are injured and killed, students identify risk management strategies. Students develop a plan for personal health and fitness and prepare for the Candidate Physical Ability Test (CPAT). Upon completion of the course, students will be able to identify specific processes, methods, and systems that reduce firefighter injuries and deaths, and they will be able to relate specific behaviors that support personal health and wellness.

### **503-139**

#### **Principles of Emergency Services**

**Credits: 3.00**

This course provides an overview of: fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; and fire service nomenclature. This course is equivalent to 503-139 at other WTCS schools.

### **503-142**

#### **Firefighting Principles I**

**Credits: 4.00**

This course includes classroom and practical training sessions on the basic fundamentals needed by entry-level firefighters and meets the objectives of the Wisconsin's Firefighter I certification course. Practical training is a major part of the course. Upon completion, students are encouraged to take the certification exam for Firefighter I, State of Wisconsin. This course is equivalent to 503-142 at other WTCS schools.

### **503-143**

#### **Building Construction**

**Credits: 3.00**

A survey of building classifications and types discussing structural elements and weaknesses of each type. Emphasizing the additional damage done by fire and how fire hastens ultimate building collapse. This course is equivalent to 503-143 at other WTCS schools.

### **503-147**

#### **Fire Protection Systems**

**Credits: 4.00**

This course provides information relating to the features of design and operation of fire detection and suppression systems.

### **503-151**

#### **Fire Prevention**

**Credits: 4.00**

This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards. It meets all requirements for Fire Inspector I certification with the state of Wisconsin.

### **503-155**

#### **Fire Protection Hydraulics**

**Credits: 4.00**

This course provides a foundation of knowledge in order to understand the principles of the use of water in fire protection. It meets all of the requirements for Driver Operator-Pumper certification with the state of Wisconsin. PREREQUISITES: Course 503-142 - Firefighting Principles I

### **503-192**

#### **Principles of Em Serv Safety & Survival**

**Credits: 3.00**

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

### **503-301**

#### **Firefighting Principles I**

**Credits: 3.00**

This course includes classroom and practical training sessions on the basic fundamentals needed by entry-level firefighters and meets the objectives of the Wisconsin's Firefighter I certification course. Practical training is a major part of the course. Upon completion, students are encouraged to take the certification exam for Firefighter I, State of Wisconsin. This course is equivalent to 503-142 at other WTCS schools.

**503-302****Fire Prevention****Credits: 2.00**

This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards. It meets all requirements for Fire Inspector I certification with the state of Wisconsin.

**503-303****Principles of Em Serv Safety & Survival****Credits: 3.00**

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

**503-304****Building Construction****Credits: 3.00**

A survey of building classifications and types discussing structural elements and weaknesses of each type. Emphasizing the additional damage done by fire and how fire hastens ultimate building collapse. This course is equivalent to 503-143 at other WTCS schools.

**503-305****Fire Protection Hydraulics****Credits: 3.00**

This course provides a foundation of knowledge in order to understand the principles of the use of water in fire protection. It meets all of the requirements for Driver Operator-Pumper certification with the state of Wisconsin. PREREQUISITES: Course 503-142 - Firefighting Principles I OR 503-301 - Firefighting Principles I

**503-306****Firefighting Principles II****Credits: 2.00**

This course is structured for competency-based instruction meeting the requirements of Firefighter Level II. It includes classroom and practical training sessions and meets the objectives of the Wisconsin's Firefighter II certification course. Hazardous Materials Operations is included in this course. Upon completion, students are



encouraged to take the certification exam for Firefighter II, State of Wisconsin. PREREQUISITES: Course 503-142 - Firefighting Principles I or 503-720 or 503-301 - Firefighting Principles I

### **503-307**

#### **Firefighter Health & Wellness**

**Credits: 2.00**

In this course, students examine fire service health and wellness issues. Through an examination of how, when, where, and why firefighters are injured and killed, students identify risk management strategies. Students develop a plan for personal health and fitness and prepare for the Candidate Physical Ability Test (CPAT). Upon completion of the course, students will be able to identify specific processes, methods, and systems that reduce firefighter injuries and deaths, and they will be able to relate specific behaviors that support personal health and wellness.

### **504-124**

#### **Forensics Science**

**Credits: 3.00**

This course exposes students to the forensic methods commonly employed in the examination of physical evidence by a forensic scientist used for identification or comparison in civil or criminal crime scene investigation and legal proceedings. The various techniques and procedures used in forensic science investigation and the admissibility standards established by state and federal courts are examined. This survey course is not designed to train individuals in the highly technical field of forensic science research, which requires extensive education in biology, chemistry, and physics. The course serves to familiarize those individuals majoring in criminal justice or related fields with the methods and techniques currently employed by forensic scientists so that students have a working knowledge and understanding of the technical world of forensic science. PREREQUISITES: Course 504-900 - Criminal Justice, Intro to with a minimum grade of C or TR

### **504-127**

#### **Spanish for Law Enforcement**

**Credits: 3.00**

In this course, students demonstrate vocabulary and language structures to communicate at a basic level in a law enforcement context. Students develop a strong cultural component designed to foster effective communication, trust, mutual respect, and cultural awareness. Upon completion, the students will be able to effectively meet the social, linguistic, and cultural needs of the Hispanic community they serve.

### **504-141**

#### **Interviews/ Interrogations/ Confessions**

**Credits: 3.00**

Topics include purposes and objectives of a proper interview, mechanics of interviews, interrogations and confessions; importance of the fundamentals of report writing, methods and procedures for interviews and the securing of confessions in accordance with the rights of a citizen under the U.S. Constitution.

### **504-148**

## **Rules of Evidence**

**Credits: 3.00**

In this course, students explore the types, proper treatment, and disposition of criminal evidence. They analyze rules for obtaining evidence, and they examine the problems of admissibility in court proceedings. Upon successful completion, students will be able to explain the various requirements that evidence must meet before it can be admitted into court. PREREQUISITES: Course 801-136 - English Composition 1 Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

**504-152**

## **Police Science Internship**

**Credits: 3.00**

The student will work in the environment of a police department or related agency. The student will experience the profession first-hand.

**504-167**

## **Phys Fitness for Law Enforcement**

**Credits: 3.00**

This course is designed to introduce students to physical conditioning, aerobic capacity and wellness training as it relates to local and nationwide Law Enforcement entrance examinations. This course will further assist students to understand the need for a Law Enforcement Officer to maintain their physical conditioning, and how an officer needs to perform the basic physical skills and tasks required in the field.

**504-168**

## **Criminal Justice Administration**

**Credits: 3.00**

In this course, students examine the functions of organization and administration as they relate to the criminal justice system. They explore recruitment, training, and retention of human resources, and they analyze funding and budgeting for organizations. Students relate management principles, practices, and communication to organizational effectiveness. Upon successful completion of the course, students will be able to explain the functions of a criminal justice organization and its administrative operations.

**504-169**

## **Criminal Justice Internship**

**Credits: 3.00**

The Criminal Justice Studies internship provides students with an opportunity to acquire practical work experience through a supervised learning experience with a criminal justice agency related to the student's interest. Upon completion of the internship, students will be able to relate the knowledge acquired in the classroom to the performance of professional criminal justice roles. PREREQUISITES: Take 504-900 - Criminal Justice, Intro to minimum grade C OR TR 504-903 - Professional Communications minimum grade C; TAKE 504-

905 - Report Writing MINIMUM GRADE C OR TR MINIMUM GRADE C,TR; TAKE 504-903 - Professional Communications MINIMUM GRADE C OR TR MINIMUM GRADE C,TR;

### **504-172**

#### **Introduction to Corrections**

**Credits: 3.00**

In this course, students examine the various historical eras of correctional philosophy. They explore the components of the United States' correctional system including sentencing, community corrections, and institutions. Students analyze the current practices of correctional institutions, and they identify alternatives to incarcerations and probation and parole. Upon completion of the course, students will be able to explain the purpose and goals of community corrections.

### **504-173**

#### **Cyber Crime**

**Credits: 3.00**

Study various criminal investigation techniques related to computer and internet related crime (theft, sex crimes, white collar crime and others). Focus on data recovery and digital forensic techniques utilized by modern law enforcement agencies. Demonstrate courtroom testimony skills related to cyber crimes, and participate in evidence recovery.

### **504-174**

#### **Security, Intro to**

**Credits: 3.00**

Discuss historical, philosophical, legal and future trends of security. Define roles of the security professional in modern society. Study public/private security operations, and management concepts focusing on career preparation and opportunities in the field. Examine security challenges of internal theft, embezzlement, drugs and violence in the workplace.

### **504-175**

#### **Terrorism/Homeland Security**

**Credits: 3.00**

Examine the history and current trends of terrorism. Discuss governmental responses and the global effect of international terrorism. Define domestic terrorism, active insurgency, and discuss the phenomenon of politically inspired violence. Evaluate statistical and analytical data of individual and state level of terrorism. Study governmental agencies assigned to the Department of Homeland Security.

### **504-177**

#### **Introduction to Criminology**

**Credits: 3.00**

In this course, students examine what constitutes a crime and how to classify crimes. They identify criminals and differentiate between accidental and premeditated violent crimes. Students relate certain abnormal human behavior that leads to criminal activity and study cases that demonstrate classic symptoms of violent behavior. Upon successful completion of the course, students will be able to identify common motives behind the criminal activity and explain methods of deterring criminal activities.

### **504-178**

#### **Trends in Criminal Justice**

##### **Credits: 3.00**

In this course, students examine Criminal Justice trends in the 21st century and the rapidly evolving expectations for accountability from the public. They examine the impact of terrorism, technological change, and social dynamics on the practice of criminal justice as well as the challenges of increased scrutiny from the public and the media. Upon completion of the course, students will be able to explain significant changes in the areas of leadership, structure, culture, policy, and technology as these relate to the Criminal Justice System.

### **504-302**

#### **Patrol Procedures**

##### **Credits: 4.00**

Students will become familiar with Wisconsin traffic laws, including how to properly complete Wisconsin Uniform Traffic Citations and how to direct and control traffic effectively. They will learn to manage a complex scene, to investigate traffic accidents, take appropriate enforcement actions, the legal context for law enforcement driving, including basic patrol operation, emergency vehicle response, pursuit driving, the legal bases for making vehicle contacts, how to conduct a threat assessment to help determine the appropriate type of contact, how to conduct different types of vehicle contacts, recognize and interpret evidence of a and to OMVWI violation, and how to administer and interpret standardized field sobriety tests.

### **504-303**

#### **Investigations**

##### **Credits: 2.00**

Students will learn techniques and procedures necessary to interview or interrogate a variety of individuals, how to recognize, process, and preserve physical evidence; law enforcement's response to a victim of crime including the dynamics of victimization, victims' rights, and enforcement's professional responsibilities to victims. Students will also learn the statutory elements of 'sensitive crimes' and the characteristics, effects, and investigative strategies unique to them.

### **504-304**

#### **The Legal Context**

##### **Credits: 2.00**

Students will learn the legal bases for law enforcement action such as arrest, use of force, and search and seizure, as well as the limits on law enforcement activity, the classifications of crimes and other violations into

felonies, misdemeanors, and ordinance violations, and the elements of crimes listed in the criminal code, and the laws and procedures that effect juveniles, including those related to taking a juvenile into custody.

#### **504-324**

##### **Security Officer Training Section I**

**Credits: 1.00**

In this course, students examine the principles and legal requirements for security operations. They analyze guidelines for: protecting people and property, the court system, civil liability, and constitutional rights. Students practice ethical decision-making and communications skills in a variety of simulated situations. They examine the Incident Command System and identify how various positions fit into the system. Upon completion of the course, students will be able to explain security operations and the Incident Command System. They will also be able to demonstrate ethical behavior and apply professional communication skills.

#### **504-325**

##### **Security Officer Training Section II**

**Credits: 1.00**

In this course, students examine the basic conceptual framework and physical skills for application of Principles of Subject Control (POSC). They analyze the legal basis for and limitations on use of force. Students explore essential concepts: Control Theory, First Responder Philosophy, and Disturbance Resolution. They practice psychomotor skill tactics and techniques related to use of force options. Upon successful completion, students will be able to explain Principles of Subject Control, articulate use of force actions, and apply psychomotor tactics and techniques.

#### **504-326**

##### **Security Officer Training Section III**

**Credits: 1.00**

In this course, students apply basic firearm safety rules. They practice handling, operating, and maintaining a handgun. Upon successful completion, students will be able to use firearms safely.

#### **504-327**

##### **Security Officer Training Section IV**

**Credits: 1.00**

In this course, students analyze the components of a healthy, balanced lifestyle. They examine suicide prevention and crisis management and practice response scenarios. Upon successful completion, students will be able to identify signs of an individual experiencing a crisis and to apply effective response to individuals with mental disorders, substance abuse problems, dementia, and developmental disabilities.

#### **504-500**

##### **Overview of Patrol Response**

**Credits: 2.00**

Through classroom lecture, and on-campus lab, and WI Department of Justice integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement, and First Aid/CPR/AED. This course will include the WI DOJ 720 Academy Integration Exercises.

#### **504-501**

##### **Physical Fitness**

**Credits: 1.00**

Through classroom lecture and on-campus lab students will apply Phases I-III Health Fitness WI Department of Justice 720 Academy curriculum framework program requirements and Officer Wellness Suicide Prevention.

#### **504-502**

##### **Application of Investigations**

**Credits: 1.00**

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase III topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Responsibility, Cultural Competence II: Fair and Impartial Policing, Interrogations, Testifying in Court, Crimes III and Physical Evidence.

#### **504-503**

##### **Overview of Criminal Justice**

**Credits: 1.00**

Through classroom lecture and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following WI Department of Justice 720 Academy Phase I curriculum framework topics; Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy and Professional Communication.

#### **504-504**

##### **Principles of Emergency Vehicle Response**

**Credits: 2.00**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

#### **504-505**

##### **Sensitive Crimes**

**Credits: 2.00**

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy

curriculum framework Phase III topics: Domestic Violence, Juvenile Law, Victims, Sexual Assault, and Child Maltreatment. The DOJ Phase III Written Examination will be administered in this course.

#### **504-506**

##### **Overview of Investigations**

**Credits: 2.00**

Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Interviews, and Report Writing.

#### **504-507**

##### **Application of Traffic Response**

**Credits: 3.00**

Through classroom lecture, and on-campus lab and WI Department of Justice integration exercises, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), Hazardous Materials and Weapons of Mass Destruction (WMD), Incident Command Systems and NIMS, and Report Writing.

#### **504-508**

##### **Principles of Investigations**

**Credits: 1.00**

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Physical Evidence Collections, and Crisis Management. The Phase II Written Exam will be given in this course

#### **504-509**

##### **Principles of Tactics**

**Credits: 5.00**

Through classroom lecture and on-campus lab and integration exercises, students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks including: Professional Communication Skills II, DAAT, Firearms II, Tactical Response, and a Tactical Emergency Casualty Care.

#### **504-510**

##### **Overview of Tactics**

**Credits: 1.00**

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics; Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness, and DAAT. The DOJ Phase I Written Examination will be administered in this course.

### **504-511**

#### **Scenario Assessment**

**Credits: 1.00**

This course will consist of one week of practical scenarios demonstrating the student's proper use of force and proper use scenarios will be those authorized by Dept. of Justice for use in police recruit training

### **504-900**

#### **Criminal Justice, Intro to**

**Credits: 3.00**

In this course, students analyze the roles and functions of federal and state courts. They differentiate the roles and functions of federal, state, and local law enforcement agencies and explore how law enforcement officers apply professional principles. Students examine modern police functions and policies from a historical perspective. They identify the role of law enforcement officers in American society. Students analyze correctional systems differentiating among jail, prison, and community corrections. Upon completion, students will be able to explain the different levels of law enforcement and how the criminal justice process works.

### **504-901**

#### **Constitutional Law**

**Credits: 3.00**

In this course, learners will diagram the structure of the criminal justice system, identify situations where constitutional rules are applicable, identify situations where an officer may use reasonable suspicion to contact a subject, identify the elements of a lawful arrest, identify search-related activities where the 4th amendment is not applicable, identify the requirements that pertain to search warrants, analyze situations where an officer may conduct a search without a warrant, compare the requirements for conducting routine searches with those for searching disabled persons and strip searches, identify the requirements of the laws governing confessions and statements, and analyze the various requirements that evidence must meet before it can be admitted in court. PREREQUISITES: Course 504-902 - Criminal Law COREQUISITES: Course 504-148 - Rules of Evidence

### **504-902**

#### **Criminal Law**

**Credits: 3.00**

In this course, students identify the difference between crimes against people, property, and the public. Students analyze situations and determine which crimes have been committed and the elements of those crimes. Students identify the difference between statutory and constitutional defenses. Upon completion of



this course, students will be able to identify the difference between a completed crime and an inchoate crime, what crime has been committed and any defenses that may be available.

### **504-903**

#### **Professional Communications**

**Credits: 3.00**

In this course, the learner will apply knowledge of the communication process, apply communication techniques, integrate verbal and physical intervention skills, develop strategies to obtain information in a variety of situations, differentiate between interview and interrogation, and analyze information for consideration of corroborative evidence.

### **504-904**

#### **Juvenile Law**

**Credits: 3.00**

In this course, the learner will describe the juvenile justice system, describe the handling of cases of children in need of protection or services, describe the handling of cases of juveniles in need of protection or services or alleged to be delinquent, identify constitutional law issues that are relevant to juveniles, analyze the role of law enforcement in responding to child maltreatment, explain the issues involved in investigating incidents of child victimization, intervene and apply appropriate investigative strategies, describe the roles of other agencies in child maltreatment cases, and recognize the unique investigative issues for missing children.

### **504-905**

#### **Report Writing**

**Credits: 3.00**

In this course, students examine a variety of law enforcement reports. They identify the essential elements of communication required to accurately convey required information used by criminal justice professionals and the public. Students practice taking effective field notes, synthesizing relevant information, and writing reports. Upon completion, students will be able to identify the information that should be included in a variety of reports, and they will be able to write narratives and organize information in reports.

### **504-906**

#### **Criminal Investigation Theory**

**Credits: 3.00**

In this course, the learner will describe the role evidence plays in criminal investigations and prosecutions; apply the steps for processing crime scenes; apply appropriate strategies to locate, handle, and package evidentiary items; document the crime scene; recognize the unique investigative issues for crimes against life; apply appropriate strategies to secure the scene, collect and preserve evidence, and investigate a death; recognize the dynamics of victimization; apply knowledge of the definitions and responsibilities for law enforcement; apply appropriate interview techniques with adult or child victims; analyze the role of law enforcement in responding to domestic abuse; intervene and apply appropriate investigative strategies; respond to an officer-involved domestic violence incident; analyze the role of law enforcement in responding

to sexual abuse; demonstrate investigative techniques in a simulated sexual assault case; and identify other resources that can assist in sexual assault cases. COREQUISITES: Course 504-148 - Rules of Evidence

### **504-907**

#### **Community Policing Strategies**

**Credits: 3.00**

In this course, the learner will identify community resources available in your area, describe the role of an advocacy group in the criminal justice community, demonstrate cultural self-awareness, interpret state and federal laws related to discrimination and diversity, utilize appropriate skills for interacting effectively and professionally with persons from culturally diverse backgrounds and lifestyles, identify and implement personal strategies that take into account cultural differences, identify the types of situations and the characteristics of individuals that are likely to be encountered in crisis management situations, apply Wisconsin statutory requirements and general guidelines regarding emergency detentions and emergency protective placements of persons, identify key concepts and elements associated with law enforcement response to people in crisis, apply crisis intervention principles and techniques, articulate the decision-making process taken to manage persons in crisis, incorporate community policing strategies into the community, illustrate problem-oriented policing strategies, evaluate other policing strategies, and apply principles of crime analysis and prevention.

### **504-908**

#### **Traffic Theory**

**Credits: 3.00**

In this course, the learner will enforce Wisconsin traffic laws, detect traffic violations, issue traffic citations, direct traffic, identify responsibilities of a first responding officer, manage the response to a scene, take necessary steps to enable effective follow-up as needed, conduct an initial investigation at a crash scene, identify the mechanics of measuring and documenting traffic crash scenes, complete the Wisconsin Motor Vehicle Accident Report, record the crash scene using photography, take appropriate enforcement action based on information gathered, and recognize and interpret indicators of impaired driving. COREQUISITES: Course 804-135 - Quantitative Reasoning

### **508-101**

#### **Dental Health Safety**

**Credits: 1.00**

This course prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. Students will be required to show proof of CPR certification before beginning this course.

### **508-103**

#### **Dental Radiography**

**Credits: 2.00**

This course prepares Dental Assistant students to operate x-ray units and expose bitewing, periapical, extra oral, and occusal radiographs. Emphasis is placed on protection against x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course, students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient. PREREQUISITES: Take 508-101 - Dental Health Safety COREQUISITES: Take 508-304 - Dental and General Anatomy

### **508-113**

#### **Dental Materials**

**Credits: 2.00**

This course prepares Dental Assistant students to handle and prepare dental materials such as liners, bases, cements, amalgam, resin restorative materials, gypsum products, and impression materials. They also learn to take alginate impressions on manikins and clean removable appliances.

### **508-120**

#### **Dental Office Management**

**Credits: 2.00**

This course prepares Dental Assistant students to manage telephones, appointments, recall systems, and inventory. Students also develop the skills needed to process accounts receivable and payable, collections, and third party reimbursements. PREREQUISITES: Course 508-307 - Dental Assistant Professionalism

### **508-302**

#### **Dental Chairside**

**Credits: 5.00**

This course prepares dental assistant students to chart oral cavity structures, dental pathology, and restorations to and to assist a dentist with basic dental procedures including examinations, pain control, amalgam restoration, and cosmetic restoration. Students will also develop the ability to educate patients about preventative dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology. This course is equivalent to 508-302 at other WTCS schools. PREREQUISITES: Take 508-101 - Dental Health Safety COREQUISITES: Take 508-304 - Dental and General Anatomy Take 508-113 - Dental Materials

### **508-304**

#### **Dental and General Anatomy**

**Credits: 2.00**

This course prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision making and to professional communication with colleagues and patients. This course is equivalent to 508-304 at other WTCS schools.

### **508-306**

#### **Dental Assistant Clinicals**

**Credits: 3.00**

Students apply skills learned in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and Professionalism in a clinical setting with patients. This course emphasizes integration of core abilities and basic occupational skills. PREREQUISITES: Student must have completed a valid CPR certification on file with the College to be eligible to register for this course. Take 508-101 - Dental Health Safety COREQUISITES: Take 508-103 - Dental Radiography Take 508-113 - Dental Materials Take 508-302 - Dental Chairside Take 508-304 - Dental and General Anatomy Take 508-307 - Dental Assistant Professionalism

**508-307****Dental Assistant Professionalism****Credits: 1.00**

This course prepares Dental Assistant students for professional success in a dental practice or other dental health care environment. Students develop professional appearance and image. More importantly, they learn to work within ethical guidelines and legal frameworks. In preparation for entering the workforce, students customize or develop their portfolios and lay out an ongoing professional development plan. This course is equivalent to 508-307 at other WTCS schools.

**508-308****Dental Chairside - Advanced****Credits: 5.00**

This course prepares Dental Assistant students to adapt chairside skills to assisting with dental specialties as they are performed in general practice. It focuses on pediatric dentistry, orthodontics, oral maxillofacial surgery, endodontics, periodontics, and prosthodontics. Students will also develop the ability to assist with sealants, perform coronal polishing, and apply topical fluoride and topical anesthetics. This course is the equivalent to 508-308 at other WTCS schools. PREREQUISITES: Course 508-302 - Dental Chairside

**508-309****Dental Laboratory Procedure****Credits: 4.00**

This course prepares Dental Assistant students to produce alginate impressions and fabricate diagnostic models, oral appliances, temporary restorations, and custom trays. Students also polish oral appliances. This course is equivalent to 508-309 in other WTCS schools. PREREQUISITES: Course 508-113 - Dental Materials

**508-310****Dental Radiography - Advanced****Credits: 1.00**

This course builds on principles and skills developed in Dental Radiography. Dental Assistant students expose full mouth series, extra-oral, and specialized radiographs on adult and child patients. Emphasis is placed on protection against x-ray hazards. Students will also process, mount, and evaluate radiographs for diagnostic value. In addition, they will use radiographs to explain dental health and treatment plans to patients. This

course is the equivalent of 508-310 at other WTCS schools. PREREQUISITES: Course 508-103 - Dental Radiography

### **508-311**

#### **Dental Assistant Clinical - Adv**

**Credits: 2.00**

Dental Assistant students apply skills developed in Dental Chairside - Advanced, Dental Lab Procedures, Dental Radiography - Advanced, and Dental Office Procedures in a clinical setting with patients that emphasizes integration of core abilities and basic and advanced occupational skills. This course is equivalent to 508-311 at other WTCS schools. PREREQUISITES: Complete course 508-306 - Dental Assistant Clinicals

### **509-301**

#### **Medical Assistant Administrative Procedures**

**Credits: 2.00**

This course introduces medical assistant students to office management and business administration in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical care staff, and keep an inventory of supplies. Students apply introductory medical coding skills and managed care terminology. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. COREQUISITES: Course 501-107 - Digital Literacy for Healthcare

### **509-302**

#### **Human Body in Health & Disease**

**Credits: 3.00**

This course focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of common diseases. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. COREQUISITES: Course 501-101 - Medical Terminology

### **509-303**

#### **Medical Assistant Lab Procedures 1**

**Credits: 2.00**

This course introduces Medical Assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform routine laboratory procedures commonly performed in the ambulatory care setting under the supervision of a physician. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology, and urinalysis testing. This course is equivalent to 509-303 at other WTCS schools. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, in order to register for this course. COREQUISITES: Complete course 509-304 - Medical Assistant Clinical Procedures 1

### **509-304**

## **Medical Assistant Clinical Procedures 1**

**Credits: 4.00**

This course introduces Medical Assistant students to the clinical procedures performed in the medical office setting. Students perform basic examining room skills, including screening, vital signs, patient history, minor surgery, and patient preparation for routine and specialty exams in the ambulatory care setting. This course is equivalent to 509-304 at other WTCS schools. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, in order to register for this course. COREQUISITES: Complete course 509-303 - Medical Assistant Lab Procedures 1

## **509-305**

### **Medical Assistant Lab Procedures 2**

**Credits: 2.00**

This course prepares students to perform laboratory procedures commonly performed by medical assistants in the ambulatory care setting under the supervision of a physician. Students perform phlebotomy, immunology, hematology, and chemistry laboratory procedures. PREREQUISITES: Complete 509-303 - Medical Assistant Lab Procedures 1 Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. COREQUISITES: Course 509-306 - Medical Assistant Clinical Procedures 2

## **509-306**

### **Medical Assistant Clinical Procedures 2**

**Credits: 3.00**

This course prepares students to perform patient care skills in a medical office setting. Students perform clinical procedures, including administering medications, assisting with minor surgery, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, and maintaining clinical equipment in an ambulatory care setting. PREREQUISITES: Take 509-303 - Medical Assistant Lab Procedures 1 Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. Take 509-304 - Medical Assistant Clinical Procedures 1; COREQUISITES: Course 509-305 - Medical Assistant Lab Procedures 2

## **509-307**

### **Medical Office Insurance and Finance**

**Credits: 2.00**

This course introduces students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance related duties. PREREQUISITES: Course 509-302 - Human Body in Health & Disease with a minimum grade of C or TR Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. Take 501-107 - Digital Literacy for Healthcare; Minimum grade C,TR;

## **509-308**

### **Pharmacology for Allied Health Pharm for Allied Health**

**Credits: 2.00**

This course introduces students to classifying indications into correct drug categories and applying basic pharmacology principles. Students apply basic pharmacodynamics to identifying common medications, medication preparation, and administration of medications used by the major body systems. PREREQUISITES: Course 509-302 - Human Body in Health & Disease with a minimum grade of C or TR Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course.

**509-309****Medical Law, Ethics, & Professionalism****Credits: 2.00**

This course prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform risk management procedures, and examine legal and bioethical issues. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. COREQUISITES: Course 801-136 - English Composition 1 or 801-301 - Writing Principles

**509-310****Medical Assistant Practicum****Credits: 3.00**

This course requires students to integrate and apply knowledge and skills from all previous medical assistant courses in actual patient care settings. Learners perform medical assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a medical assistant. This AAMA required externship lasts between 160 hours (AAMA minimum) and 216 hours. PREREQUISITES: Student must be accepted to program 31-509-1, Medical Assistant, to be eligible to register for this course. COREQUISITES: Take 509-305 - Medical Assistant Lab Procedures 2 Take 509-306 - Medical Assistant Clinical Procedures 2 Take 509-307 - Medical Office Insurance and Finance Take 509-308 - Pharmacology for Allied Health Pharm for Allied Health Take 509-309 - Medical Law, Ethics, & Professionalism

**510-107****RN Refresher I - Theory/Lab****Credits: 3.00**

This course will review and update the knowledge of the learner in application of the nursing process (assessment, analysis, planning, implementation, evaluation) in caring for clients with acute and chronic health alterations through the lifespan. Attention can be given to medical and surgical nursing care, mental health, pediatrics, obstetrics, and long term care. This course also provides a review of infection control principles, an update on pharmacology, discussion of professional communication practices, documenting and reporting health information, and issues including recent trends in nursing practice, supervision, delegation. The laboratory portion of the course will occur in the Nursing Skills Lab and focuses on review of both basic and advanced nursing skills, electronic health record documentation, technology and equipment updates. PREREQUISITES: Student must be accepted to 90-543-3 RN Refresher I to be eligible to register for this course.

**510-108**

## **RN Refresher II - Clinical**

**Credits: 2.00**

This course is unique in that it can be matched to a health care setting similar to where the learner anticipates working- in a clinic, hospital, or long-term care facility. With the guidance and indirect supervision of an instructor, and side-by-side with an experienced RN preceptor, hands-on learning will review and update the knowledge and ability of the learner in clinical nursing practice. The course promotes clinical decision making, collaboration, delegation, and reflection. PREREQUISITES: Course 510-107 - RN Refresher I - Theory/Lab Student must be accepted to 90-543-4 RN Refresher II to be eligible to register for this course.

## **510-126**

### **OB Technician**

**Credits: 3.00**

This course is designed for CNAs working in the obstetrical department, to prepare them to help with all types of deliveries, postpartum tubals, emergency procedures, and circumcisions performed in the OB department.

## **510-138**

### **The Electronic Health Record**

**Credits: 3.00**

In this course students will learn all aspects of the electronic health record including aspects such as security, HIPAA requirements, legalities, and interdisciplinary collaboration. Authentic practice and documentation in the EHR will be provided through the use of a virtual program which simulates the clinical environment. PREREQUISITES: Take 806-177 - General Anatomy and Physiology Minimum grade C,TR; Take 806-179 - Anatomy and Physiology, Advanced; Minimum grade C,TR;

## **510-151**

### **Nsg: Endocrine & Electrolytes Disorders**

**Credits: 1.00**

This course is designed to enhance the learning of nursing students in planning care for the client with disorders of the endocrine system, fluids, electrolytes, and acid-base balance. PREREQUISITES: Courses 543-105 - Nursing Health Alterations, 543-106 - Nursing Health Promotion, 543-107 - Nursing: Clinical Care Across the Lifespan Lifespan, 543-108 - Nursing: Introduction to Clinical Care Management

## **510-153**

### **Nsg: Pharmacology Applications**

**Credits: 1.00**

This course reviews the principles of pharmacology with emphasis on major drug classifications used to treat diseases. The pathophysiology approach will help the learner connect pharmacology and the nursing process to the medical/nursing treatment of a variety of clients. PREREQUISITES: Course 543-103 - Nursing Pharmacology

## **510-155**



## **Principles of Gerontological Nursing**

**Credits: 3.00**

This course is designed to prepare the nurse to care for the complexity of caring for the aged client and family. Content includes physiologic changes in aging, theories of aging, medications and laboratory values specific to the aging client, management of illnesses, diseases and conditions commonly seen in the aging population, and ethical and legal considerations.

**510-159**

### **Physical Assessment**

**Credits: 3.00**

In this course students will apply prior theoretical learning about performing a head-to-toe physical assessment to Digital Clinical Experiences a virtual world of patients with a variety of real world health needs. Upon completion of the course students are able to demonstrate and perfect their clinical reasoning skills as they interact with life-like patients; capable of responding to open-ended questions, listen to heart, lung, and bowels sounds with a virtual stethoscope, synthesize labs and assessment findings, and document.

PREREQUISITES: Take 806-177 - General Anatomy and Physiology Minimum grade C,TR; Take 806-179 - Anatomy and Physiology, Advanced; Minimum grade C,TR;

**510-160**

### **Transition: LPN to ADN**

**Credits: 1.00**

In this course, Licensed Practical Nurses (LPN) build on their existing knowledge while performing a variety of skills. Students perform nursing assessments, develop and apply a plan of care, research evidence-based practice, and apply theoretical principles using the human patient simulator. Upon completion of the course, students are ready to enroll in the third semester of the Associate Degree - Nursing (ADN) Program.

**510-325**

### **Certified Medication Assistant**

**Credits: 3.00**

Contracted course only. Contact Business & Workforce Solutions. Medication Assistants are Certified Nursing Assistants who have completed an approved training program and have received additional certification to administer medications and perform nonsterile treatments in a Skilled Nursing Facility in Wisconsin, following the policies and procedures of their organization. They perform the delegated function of medication administration under the supervision of a registered nurse. Routes of administration include oral, topical, eye, ear, and nose drops; vaginal; rectal; transdermal; and oral inhalers. PREREQUISITES: Course 543-300 - Nursing Assistant with a minimum grade of C or TR

**512-125**

### **Surgical Technology, Intro to**

**Credits: 4.00**

Provides the foundational knowledge of the occupational environment. Principles of sterilization and disinfection are learned. Surgical instruments are introduced. Preoperative patient care concepts are simulated. Lab practice is included. PREREQUISITES: Course 806-177 - General Anatomy and Physiology COREQUISITES: Course 501-101 - Medical Terminology

### **512-126**

#### **Surgical Tech Fundamentals 1**

**Credits: 4.00**

Focuses on preparing the patient and operating room for surgery. Principles of sterile technique are emphasized as the student moves into the scrub role. Lab practice is included. PREREQUISITES: Course 806-177 - General Anatomy and Physiology Take 512-125 - Surgical Technology, Intro to COREQUISITES: Take 501-101 - Medical Terminology

### **512-127**

#### **Exploring Surgical Issues**

**Credits: 2.00**

Explores a variety of issues related to surgical technology. Emphasis is placed on becoming a professional member of the surgical team. COREQUISITES: Take 512-125 - Surgical Technology, Intro to

### **512-128**

#### **Surgical Tech Fundamentals 2**

**Credits: 4.00**

Focuses on enhancing surgical technology skills while functioning as a sterile team member. Lab and/or clinical practice is included. PREREQUISITES: Courses 512-125 - Surgical Technology, Intro to, 512-126 - Surgical Tech Fundamentals 1, 512-127 - Exploring Surgical Issues, and 501-101 - Medical Terminology COREQUISITES: Courses 806-179 - Anatomy and Physiology, Advanced and 512-129 - Surgical Pharmacology Take 512-130 - Surgical Skills Application

### **512-129**

#### **Surgical Pharmacology**

**Credits: 2.00**

Basic study of drug classifications, care, and handling of drugs and solutions, application of mathematical principles in dosage calculations, terminology related to pharmacology, anesthesia, and drugs used in surgery. PREREQUISITES: Take 512-125 - Surgical Technology, Intro to Take 512-126 - Surgical Tech Fundamentals 1

### **512-130**

#### **Surgical Skills Application**

**Credits: 2.00**

Provides a transition from the academic to the clinical setting. Learners integrate the surgical technologist skills as they apply to various surgical procedures. PREREQUISITES: Take 512-125 - Surgical Technology, Intro to

Minimum grade C,TR; Take 512-126 - Surgical Tech Fundamentals 1; Minimum grade C,TR; Take 512-127 - Exploring Surgical Issues; Minimum grade C,TR; COREQUISITES: Course 512-129 - Surgical Pharmacology Take 512-128 - Surgical Tech Fundamentals 2; Minimum grade C,TR;

### **512-131**

#### **Surgical Interventions 1**

**Credits: 4.00**

Provides the foundational knowledge of surgical core and specialty procedures. Examines the pathophysiology, diagnostic interventions, health sciences, and surgical techniques for a variety of procedures. PREREQUISITES: Take 512-128 - Surgical Tech Fundamentals 2 Take 512-130 - Surgical Skills Application Take 801-136 - English Composition 1

### **512-132**

#### **Surgical Technology Clinical 1**

**Credits: 3.00**

Apply basic surgical theories, principles, and procedural techniques in the operating room. Students begin to function as team members under the guidance of the instructor and authorized clinical personnel. PREREQUISITES: Take 512-128 - Surgical Tech Fundamentals 2 Minimum grade C,TR; Take 512-129 - Surgical Pharmacology; Minimum grade C,TR; Take 512-130 - Surgical Skills Application; Minimum grade C,TR; COREQUISITES: Course 512-131 - Surgical Interventions 1

### **512-133**

#### **Surgical Technology Clinical 2**

**Credits: 3.00**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. PREREQUISITES: Take 512-129 - Surgical Pharmacology Minimum grade C,TR; Take 512-130 - Surgical Skills Application; Minimum grade C,TR; Take 512-132 - Surgical Technology Clinical 1; Minimum grade C,TR; COREQUISITES: Course 512-131 - Surgical Interventions 1

### **512-135**

#### **Surgical Technology Clinical 3**

**Credits: 3.00**

Further experience in a clinical setting allows the student to continue to improve technical skills while accepting more responsibilities during surgical procedures. PREREQUISITES: Take 512-131 - Surgical Interventions 1 Take 512-133 - Surgical Technology Clinical 2 COREQUISITES: Course 512-142 - Surgical Interventions II

### **512-136**

#### **Surgical Technology Clinical 4**

**Credits: 3.00**

During this clinical course the student will function relatively independently. Serves as a transition from a student perspective to an employee by utilizing advanced skills for an entry level Surgical Technologist. PREREQUISITES: Course 512-135 - Surgical Technology Clinical 3 COREQUISITES: Course 512-142 - Surgical Interventions II

### **512-142**

#### **Surgical Interventions II**

**Credits: 4.00**

Expands knowledge of core and specialty surgical procedures by incorporating pathophysiology, diagnostic interventions, health sciences, and surgical techniques. PREREQUISITES: Take 512-133 - Surgical Technology Clinical 2 Take 512-131 - Surgical Interventions 1 COREQUISITES: Take 512-135 - Surgical Technology Clinical 3 Take 512-136 - Surgical Technology Clinical 4

### **513-109**

#### **Blood Bank**

**Credits: 4.00**

Focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities.

### **513-110**

#### **Lab Skills, Basic**

**Credits: 1.00**

This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests. PREREQUISITES: Student must be accepted to program 10-513-1 Medical Laboratory Technician to be eligible to register for this course.

### **513-111**

#### **Phlebotomy**

**Credits: 2.00**

This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture, and special collection procedures. PREREQUISITES: Student must be accepted to program 10-513-1 Medical Laboratory Technician to be eligible to register for this course.

### **513-113**

#### **QA Lab Math**

**Credits: 1.00**

Focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory.

**513-114****Urinalysis****Credits: 2.00**

Prepares you to perform a complete urinalysis which includes physical, chemical and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions. PREREQUISITES: Take 806-177 - General Anatomy and Physiology minimum grade of B-

**513-115****Basic Immunology Concepts****Credits: 2.00**

Provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections. PREREQUISITES: Take 806-197 - Microbiology Take 806-177 - General Anatomy and Physiology Minimum grade of B-

**513-116****Clinical Chemistry****Credits: 4.00**

Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis. Additional topics include hepatic, cardiac markers, tumor markers, endocrine function, miscellaneous body fluids, toxicology, enzymes and electrolytes. PREREQUISITES: Take 806-186 - Biochemistry/Introduction with a minimum grade of B-

**513-120****Basic Hematology****Credits: 3.00**

Covers the theory and principles of blood cell production and function, and introduces you to basic practices and procedures in the hematology laboratory. PREREQUISITES: Take 806-177 - General Anatomy and Physiology with a minimum grade of B-

**513-121****Coagulation****Credits: 1.00**

Introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and monitor treatment. PREREQUISITES: Take 513-120 - Basic Hematology; Minimum Grade C or TR

**513-130****Advanced Hematology**

**Credits: 2.00**

Explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment. PREREQUISITES: Take 513-120 - Basic Hematology; Minimum Grade C or TR

**513-133****Clinical Microbiology****Credits: 4.00**

Presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed. PREREQUISITES: Take 806-197 - Microbiology; Minimum Grade B- or TR

**513-140****Advanced Microbiology****Credits: 2.00**

Provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed. PREREQUISITES: Take 513-133 - Clinical Microbiology; Minimum Grade C,TR;

**513-151****Clinical Experience 1****Credits: 3.00**

Practice the principles and procedures of laboratory medicine as an entry level Medical Laboratory Technician (MLT) in a clinical laboratory setting. Working alongside laboratory professionals, you will collect and process specimens, operate laboratory analyzers and instruments and report results in a Laboratory Information Systems. PREREQUISITES: Take 513-116 - Clinical Chemistry; Minimum Grade C,TR; Take 513-114 - Urinalysis; Minimum Grade C,TR Take 513-120 - Basic Hematology; Minimum Grade C,TR; Take 513-133 - Clinical Microbiology; Minimum Grade C,TR; Take 513-115 - Basic Immunology Concepts; Minimum Grade C,TR

**513-152****Clinical Experience 2****Credits: 4.00**

Provides continuing practice for the principles and procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on Laboratory Information Systems. PREREQUISITES: Take 513-151 - Clinical Experience 1; Minimum Grade C,TR;

**513-170****Introduction to Molecular Diagnostics**

**Credits: 2.00**

Introduces the principles and application of molecular diagnostics in the clinical laboratory. PREREQUISITES: Take 513-116 - Clinical Chemistry Minimum grade of B-

**519-324****Facilities Service OSHA****Credits: 1.00**

Prepares students for custodial service employment. Introduces students to safety in the work place, hazard communication and bloodborne pathogen protection. Students will gain knowledge of chemical fundamentals and safe handling of cleaning chemicals.

**519-325****Cleaning Fundamentals****Credits: 3.00**

Prepares students for custodial services employment. Develops knowledge and experience in general cleaning techniques, chemical usage, tools and equipment usage and identification of maintenance issues encountered by custodial staff. Includes common area, office/classroom, general kitchen, and restroom cleaning.

**519-326****Floor Care****Credits: 2.00**

Prepares students for custodial services employment. Introduces floor types, floor care chemicals and equipment. Develops knowledge and experience in assessment of current floor care needs and performance of floor care maintenance techniques (including routine, interim and restorative).

**519-327****Carpet Care****Credits: 2.00**

Prepares students for custodial services employment. Introduces carpet types, carpet care chemicals and equipment. Student will gain knowledge and experience in assessment of current carpet care needs and performance of carpet care maintenance techniques (routine, interim and restorative).

**519-328****Green Cleaning****Credits: 1.00**

Prepares students for custodial service employment. Introduces students to effective cleaning techniques and chemicals used to protect the public health without harming the environment.

**520-101**

## **Human Services/Introduction**

**Credits: 3.00**

In this course, students examine the scope of the human service field and the principles of the human service profession. They explore human services agencies and delivery systems and the typical roles and duties of human service workers. Upon completion of the course, students will be able to explain the role of the human service worker and the environments in which they practice.

## **520-102**

### **Crisis Intervention in Human Services**

**Credits: 3.00**

Students will learn about crisis theory and its application to a variety of clientele and contexts. Students will also learn and practice a variety of verbal and non-verbal approaches to working with the client in crisis, steps in maintaining safety and will demonstrate their learning through direct, hands on approaches. Upon successful completion of the course students will be able to obtain a certificate in Non-Violent Crisis Intervention through the Crisis Prevention Institute. This course does not teach CPI restraint methods.

## **520-105**

### **Interviewing Principles & Documentation**

**Credits: 3.00**

In this course, students explore concepts related to interviewing and documentation skills as practiced in human services agencies. They analyze and practice skills associated with active listening, proper attending, case planning, assessment, social history, and summary recording. Upon completion of the course, students will develop techniques for conducting an interview and apply case management and documentation skills as practiced in human services agencies.

## **520-110**

### **Community Resources and Services**

**Credits: 3.00**

In this course, students explore a wide variety of community agencies, resources, and programs. They assess their functions, funding sources, clients served, and eligibility requirements. Upon completion of the course, students will be able to identify and describe the characteristics of a variety of community agencies, resources, and programs.

## **520-115**

### **Counseling/Introduction to**

**Credits: 3.00**

This course is designed to provide the student with an overview of the major counseling theories, their techniques and the applications of these to various situations. The student will be able to practice the use of these counseling techniques in initiating, structuring and terminating a counseling session. **PREREQUISITES:** Courses 520-105 - Interviewing Principles & Documentation



## **520-121**

### **Human Service Field Experience II**

**Credits: 3.00**

The student is given the opportunity to demonstrate understanding of more advanced social work skills and techniques used in the field. This course will meet in a weekly seminar to monitor progress and address concerns. PREREQUISITES: Take 520-124 - Human Service Field Experience Minimum grade C,TR; Take 520-140 - Group Counseling; Minimum grade C,TR;

## **520-124**

### **Human Service Field Experience**

**Credits: 3.00**

In this course, students practice applying professional Human Services skills and techniques in a Human Services setting. Under supervision, students will work directly with clients at a human service agency. Students will reflect on the demonstration of their skills with their peers. Upon successful completion of the course, students will be able to competently apply professional Human Services skills and techniques. PREREQUISITES: Take 520-127 - Professional Practices in Human Services Complete course 804-135 - Quantitative Reasoning or a higher-level math course. Take 801-136 - English Composition 1 COREQUISITES: Courses 520-140 - Group Counseling

## **520-127**

### **Professional Practices in Human Services**

**Credits: 3.00**

In this course, students examine characteristics of professionalism and effectiveness as a human service practitioner. They analyze professional ethical codes and standards for the major helping professions, and they practice applying them in a variety of case scenarios. Upon completion of the course, students will be able to apply the professional ethics of a human service practitioner to social and ethical issues.

## **520-128**

### **Child Welfare Policy and Practice**

**Credits: 3.00**

This class helps the student examine the economic, social, and political aspects of children's issues. It also addresses the U.S. welfare system, including proprietary, private, voluntary, and governmental agencies.

## **520-140**

### **Group Counseling**

**Credits: 3.00**

In this course, students examine group dynamics, strategies, and therapeutic processes. They analyze the five stages of group development and explore various counseling approaches and their application to the group. Students engage in simulated counseling scenarios in which individual behaviors and motivations are identified. Upon successful completion of the course, students will be able to explain how to lead

informational and supportive groups using a solution-focus model. PREREQUISITES: Courses 520-115 - Counseling/Introduction to

### **520-144**

#### **Human Services Program Orientation**

**Credits: 1.00**

This course is designed to familiarize students with the field of Human Services, the resources available to them at Gateway and the expectations, support and requirements that will be necessary to complete the Human Services degree at Gateway Technical College. Focus on the course will be on how best to utilize one's strengths, navigate technology, identify needs/resources and strategies to become a successful learner.

### **520-150**

#### **Gerontology/Introduction to**

**Credits: 3.00**

Identifies basic theories and facts about the aging process leading toward application of methods and techniques of serving the aged. Student will be encouraged to develop an understanding of the psychological and sociological experience of the older adult population.

### **520-151**

#### **Family Theory and Practice**

**Credits: 3.00**

In this course, students explore the human service professional's role when working with families. They examine family systems theory, communication patterns, rules, and roles that impact how family members interact with each other. Students will explore how the human service worker can apply interventions and strategies to improve family functioning. Students analyze the impact of stressors on family functioning using case studies. Upon completion of the course, students will be able to explain major family therapy models of practice and strategies for working with families.

### **520-152**

#### **Aspects of Disabilities**

**Credits: 3.00**

In this course, students analyze the history of services and legislative processes involved in provision of services to people with disabilities. They examine various models and therapeutic interventions, and they explore different types of disability. Upon successful completion of the course, students will be able to explain medical diseases and disabilities and their impact on disabled individuals and their environments.

### **520-160**

#### **Correctional Processes**

**Credits: 3.00**

A study of present correctional policies and processes in the criminal justice field as it affects today's society in terms of deterrents and rehabilitation and a look at future trends.

### **520-161**

#### **Child and Adolescent Mental Health**

**Credits: 3.00**

In this course, students examine the psychological, social/environmental, cultural, and diagnostic aspects of children's mental health and mental illness. They explore areas of intervention and resilience. Upon successful completion of the course, students will be able to identify symptoms of children and adolescent's mental illness and identify current trends affecting practice in this area.

### **522-101**

#### **EDU: Teamwork in School Settings**

**Credits: 3.00**

This course introduces the learner to group dynamics, school and class policies, liability, confidentiality, and safety issues as they relate to the role of the instructional assistant as a member of a team.

### **522-102**

#### **EDU: Techniques in Reading**

**Credits: 3.00**

Students learn techniques to support reading development for all learners. Students learn techniques to promote phonological awareness, phonemic awareness, and phonics. Students also learn strategies to promote word analysis, vocabulary, and reading fluency skills. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or achieve the required placement test score

### **522-103**

#### **EDU: Introduction to Educational Practices**

**Credits: 3.00**

This course addresses the fundamentals of teaching methodologies, learning styles, factors influencing teaching effectiveness, strategies to meet the needs of all learners, questioning techniques, and basic assessment practices.

### **522-104**

#### **EDU: Technology/Media Rsrces**

**Credits: 3.00**

This course provides the opportunity for the learner to develop the knowledge and skills in the area of media and computer resources as it relates to the instructional assistant. Students in this course will gain hands-on computer and media experience and will learn how to operate a variety of equipment. A variety of school related documents will be prepared while using selected software. Students incorporate images into documents from a variety of sources, including digital cameras and scanners.

**522-105****EDU: Behavior Management****Credits: 3.00**

Students evaluate models of behavior management, analyze social emotional learning, and explain the importance of proactive management techniques. In addition, students evaluate models of behavior management, analyze behavior and analyze the influence of Adverse Childhood Experiences on behavior in order to focus on developing skills to assist in empowering children to take an active role in self-control and classroom management.

**522-106****EDU:Child and Adolescent Development****Credits: 3.00**

This course provides an overview of growth and development from birth through adolescence. It acquaints the learner with the fundamental tasks of physical, motor, perceptual, cognitive, social/emotional, and language development.

**522-107****EDU:Overview of Special Education****Credits: 3.00**

Students examine a historical overview of special education and special education law including special education disability categories as defined by the Individuals with Disabilities Education Act (IDEA). Students explore state and federal qualification special education criteria and societal responses to students with disabilities. Students examine the impact of a student with disabilities on family dynamics and the role school personnel play in supporting students with disabilities.

**522-111****EDU:Guiding and Managing Behavior****Credits: 3.00**

This course focuses on guiding children's behavior to keep them safe and healthy. It includes strategies for improving behavior and problems of all levels in the inclusive classroom, on the bus, on the playground, and on field trips.

**522-112****EDU: Equity in Education****Credits: 3.00**

Students analyze personal culture, explore cultural constructs, evaluate cultural bias in educational materials and analyze strategies to support English Learners. Students examine diversity in the classroom and develop techniques for supporting equity in the learning environment. In addition, students collaborate to identify service needs in the community and demonstrate professional collaboration skills through participating in a service learning project.

**522-114****EDU: Techniques in Language Arts****Credits: 3.00**

Students explore various genres of children's and young adult literature. Students examine techniques used to support learners in reading and writing and strategies for assessing learners in the process. Students examine techniques to support learners with reading and writing across the curriculum. PREREQUISITES: Complete course 522-102 - EDU: Techniques in Reading with a minimum grade of C Take 801-136 - English Composition 1

**522-118****EDU: Techniques in Math****Credits: 3.00**

This course will address techniques for the instructional assistant in assisting the classroom teacher in group and individual tutoring activities in math. Current practice, including manipulatives, problem solving, and assessment, will be covered within the framework of state and national standards. PREREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course with a minimum grade C or TR

**522-119****EDU: Techniques in Soc Stud****Credits: 3.00**

Students analyze current content in social studies education as recommended by the National Council for the Social Studies and design learning opportunities for the five components of social studies: Geography, History, Culture and Society, Civics and Government, and Economics. Students explore factors that influence social studies instruction.

**522-120****EDU: Techniques in Science****Credits: 3.00**

This course is an introduction to the content and processes of science. Strategies of teaching science will be studied and practiced and will prepare you in assisting the classroom teacher in group and individual activities in science. Current science processes, strategies, procedures, assessment options, and factors affecting science learning will be explored.

**522-124****EDU: Supporting Students with Disabilities****Credits: 3.00**

Students identify research-based interventions for learners in categories defined by the Individuals with Disabilities Education Act (IDEA). Students interpret Individualized Educational Programs and examine special education related services available for learners. Students collect data to document student behavior and academic performance and recommend program adaptations and accommodations for students with disabilities while applying the concepts of least restrictive environment and inclusion.

**522-129****EDU: Practicum 1****Credits: 3.00**

Practicum I will introduce the student to a diverse classroom setting at an elementary, middle school and/or high school level. The student will observe children and practice techniques under the guidance of a DPI certified teacher.

**522-131****EDU: Practicum 2****Credits: 3.00**

Apply the skills learned in previous program courses in a school setting while under the supervision of a DPI certified teacher. Students support children with special education needs and programming. Job search skills will be addressed and a professional portfolio will be completed. PREREQUISITES: Take 522-114 - EDU: Techniques in Language Arts minimum grade C or TR Take 522-118 - EDU: Techniques in Math; Minimum Grade C,TR; Take 522-129 - EDU: Practicum 1; Minimum Grade C,TR;

**524-108****PTA Musculoskeletal Anatomy & Function****Credits: 2.00**

This course is a preparatory and enrichment elective for students who are about to enter first semester PTA program core courses. It provides an in-depth look at musculoskeletal anatomy, including anatomical terms, bony anatomy, cardinal planes and motions, and joint and muscle structure and function. PREREQUISITES: Course 806-177 - General Anatomy and Physiology

**524-139****PTA Patient Interventions****Credits: 4.00**

This course is an introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.

**524-140****PTA Professional Issues 1****Credits: 2.00**

This course introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communication skills. This course is equivalent to 524-140 at other WTCS schools.

**524-142****PTA Therapeutic Exercise**

**Credits: 3.00**

This course provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises. PREREQUISITES: Course 806-177 - General Anatomy and Physiology with minimum grade C COREQUISITES: Course 524-156 - PTA Applied Kinesiology 1

**524-143**

**PTA Biophysical Agents**

**Credits: 4.00**

This course develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA. COREQUISITES: Take 524-139 - PTA Patient Interventions

**524-144**

**PTA Principles of Neuromuscular Rehabilitation**

**Credits: 4.00**

This course integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment. It is equivalent to 524-144 at other WTCS schools. PREREQUISITES: Complete courses 524-139 - PTA Patient Interventions 524-142 - PTA Therapeutic Exercise 524-157 - PTA Applied Kinesiology 2 minimum grade C

**524-145**

**PTA Musculoskeletal Rehabilitation**

**Credits: 4.00**

This course integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment. It is equivalent to 524-145 at other WTCS schools. PREREQUISITES: Course 524-139 - PTA Patient Interventions with minimum grade C COREQUISITES: Courses 524-142 - PTA Therapeutic Exercise and 524-157 - PTA Applied Kinesiology 2

**524-146**

**PTA Management of Cardiopulmonary and Integumentary Conditions**

**Credits: 3.00**

This course integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment. It is equivalent to 524-146 at other WTCS schools. PREREQUISITES: Complete courses 524-139 - PTA Patient Interventions 524-142 - PTA Therapeutic Exercise 524-157 - PTA Applied Kinesiology 2 minimum grade C

**524-147**

**PTA Clinical Practice 1**

**Credits: 2.00**

This course provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice. It is the equivalent of 524-147 at other WTCS schools.

COREQUISITES: Courses 524-143 - PTA Biophysical Agents and 524-157 - PTA Applied Kinesiology 2

## **524-148**

### **PTA Clinical Practice 2**

**Credits: 3.00**

This course provides another part-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings. It is equivalent to 524-148 at other WTCS schools. PREREQUISITES: Course 524-147 - PTA Clinical Practice 1

## **524-149**

### **PTA Rehabilitation Across the Lifespan**

**Credits: 2.00**

This capstone course integrates concepts of pathology, physical therapy interventions, and data collection across the lifespan. In addition, the PTA's role in health, wellness and prevention, reintegration, and physical therapy interventions for special patient populations will be addressed. This course is equivalent to 524-149 at other WTCS schools. PREREQUISITES: Courses 524-144 - PTA Principles of Neuromuscular Rehabilitation, 524-145 - PTA Musculoskeletal Rehabilitation, and 524-148 - PTA Clinical Practice 2 COREQUISITES: Course 524-146 - PTA Management of Cardiopulmonary and Integumentary Conditions

## **524-150**

### **PTA Professional Issues 2**

**Credits: 2.00**

This course incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies. PREREQUISITES: Course 524-140 - PTA Professional Issues 1 COREQUISITES: Course 524-148 - PTA Clinical Practice 2

## **524-151**

### **PTA Clinical Practice 3**

**Credits: 5.00**

This course provides a full-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings. PREREQUISITES: Courses 524-144 - PTA Principles of Neuromuscular Rehabilitation, 524-145 - PTA Musculoskeletal Rehabilitation, 524-146 - PTA Management of Cardiopulmonary and Integumentary Conditions, and 524-148 - PTA Clinical Practice 2

## **524-156**

### **PTA Applied Kinesiology 1**

**Credits: 4.00**



Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength. PREREQUISITES: Course 801-136 - English Composition 1 with a minimum grade D

### **524-157**

#### **PTA Applied Kinesiology 2**

**Credits: 3.00**

Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait. PREREQUISITES: Course 524-156 - PTA Applied Kinesiology 1 with a minimum grade of C or TR

### **526-149**

#### **Radiographic Procedures 1**

**Credits: 5.00**

This course prepares radiography students to perform routine radiologic procedures on various parts of the body, including the upper body, hip, pelvis, and ankle. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result. PREREQUISITES: Course 806-177 - General Anatomy and Physiology COREQUISITES: Take 526-158 - Introduction to Radiography Take 526-159 - Radiographic Imaging Take 526-168 - Radiography Clinical 1

### **526-158**

#### **Introduction to Radiography**

**Credits: 3.00**

This course introduces students to the role of radiography in health care. Students apply legal and ethical considerations to patient care and pharmacology in the radiologic sciences. PREREQUISITES: Course 806-177 - General Anatomy and Physiology COREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-159 - Radiographic Imaging, and 526-158 - Introduction to Radiography

### **526-159**

#### **Radiographic Imaging**

**Credits: 3.00**

This course introduces radiography students to the process of creating radiographic images. Students determine the factors that affect image quality, including contrast, density, and distortion. Students apply OSHA standards for health and safety in the darkroom. PREREQUISITES: Course 806-177 - General Anatomy and Physiology COREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-158 - Introduction to Radiography, and 526-168 - Radiography Clinical 1

### **526-168**

#### **Radiography Clinical 1**

**Credits: 2.00**

This beginning level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. PREREQUISITES: Course 806-177 - General Anatomy and Physiology COREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-158 - Introduction to Radiography, and 526-159 - Radiographic Imaging

### **526-174**

#### **ARRT Certification Seminar**

**Credits: 2.00**

Provides preparation for the for the national certification examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized. PREREQUISITES: Course 526-199 - Radiography Clinical 4 COREQUISITES: Courses 526-189 - Radiographic Pathology, 526-190 - Radiography Clinical 5, and 526-195 - Radiographic Image Analysis

### **526-189**

#### **Radiographic Pathology**

**Credits: 1.00**

This course prepares radiography students to determine the basic radiographic manifestations of pathological conditions. Students classify trauma related to site, complications, and prognosis and locate the radiographic appearance of pathologies. PREREQUISITES: Course 526-199 - Radiography Clinical 4 COREQUISITES: Courses 526-174 - ARRT Certification Seminar, 526-190 - Radiography Clinical 5, 526-195 - Radiographic Image Analysis, and 526-197 - Radiation Protection and Biology

### **526-190**

#### **Radiography Clinical 5**

**Credits: 2.00**

This fifth level clinical course prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. PREREQUISITES: Course 526-199 - Radiography Clinical 4 COREQUISITES: Courses 526-174 - ARRT Certification Seminar, 526-189 - Radiographic Pathology, 526-195 - Radiographic Image Analysis, and 526-197 - Radiation Protection and Biology

### **526-191**

#### **Radiographic Procedures 2**

**Credits: 5.00**

This course prepares radiography students to perform routine radiologic procedures on various parts of the body, including the skull and spine. Students apply knowledge of human anatomy to position the patient correctly to achieve the desired result. PREREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-158

- Introduction to Radiography, 526-159 - Radiographic Imaging, 526-168 - Radiography Clinical 1  
COREQUISITES: Courses 526-230 - Advanced Radiographic Imaging and 526-192 - Radiography Clinical 2

### **526-192**

#### **Radiography Clinical 2**

**Credits: 3.00**

This second level clinical prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting. PREREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-158 - Introduction to Radiography, 526-159 - Radiographic Imaging, 526-168 - Radiography Clinical 1 COREQUISITES: Courses 526-230 - Advanced Radiographic Imaging and 526-191 - Radiographic Procedures 2

### **526-193**

#### **Radiography Clinical 3**

**Credits: 3.00**

This third level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting.

PREREQUISITES: Courses 526-230 - Advanced Radiographic Imaging, 526-191 - Radiographic Procedures 2, and 526-192 - Radiography Clinical 2

### **526-194**

#### **Imaging Equipment Operation**

**Credits: 3.00**

This course introduces radiography to the principles and application of x-ray technology. Students analyze how x-rays are produced and determine the corrective actions necessary for common equipment malfunctions.

PREREQUISITES: Course 526-193 - Radiography Clinical 3 COREQUISITES: Courses 526-231 - Imaging Modalities and 526-199 - Radiography Clinical 4

### **526-195**

#### **Radiographic Image Analysis**

**Credits: 2.00**

This course prepares radiography students to analyze radiographic images for quality. Students apply quality control tests to determine the causes of image problems, including equipment malfunctions and procedural errors. PREREQUISITES: Course 526-199 - Radiography Clinical 4 COREQUISITES: Courses 526-174 - ARRT Certification Seminar, 526-189 - Radiographic Pathology, 526-190 - Radiography Clinical 5, and 526-197 - Radiation Protection and Biology

### **526-197**

## **Radiation Protection and Biology**

**Credits: 3.00**

This course prepares radiography students to protect themselves and others from exposure to radioactivity. Students examine the characteristics of radiation and how radiation affects cell biology. Students apply standards and guidelines for radiation exposure. PREREQUISITES: Course 526-199 - Radiography Clinical 4 COREQUISITES: Courses 526-174 - ARRT Certification Seminar, 526-189 - Radiographic Pathology, 526-190 - Radiography Clinical 5, and 526-195 - Radiographic Image Analysis

### **526-198**

## **Radiography Clinical 6**

**Credits: 2.00**

This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high quality radiographs in the clinical setting. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. PREREQUISITES: Course 526-190 - Radiography Clinical 5

### **526-199**

## **Radiography Clinical 4**

**Credits: 3.00**

This fourth level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies. PREREQUISITES: Course 526-193 - Radiography Clinical 3 COREQUISITES: Courses 526-194 - Imaging Equipment Operation and 526-231 - Imaging Modalities

### **526-230**

## **Advanced Radiographic Imaging**

**Credits: 2.00**

This course prepares radiography students to apply advanced radiographic principles to the production of radiographic images. Students analyze exposure factor considerations, differentiate between film and exposure latitude, and use beam restricting devices. PREREQUISITES: Courses 526-149 - Radiographic Procedures 1, 526-159 - Radiographic Imaging, 526-159 - Radiographic Imaging, and 526-168 - Radiography Clinical 1 COREQUISITES: Courses 526-191 - Radiographic Procedures 2 and 526-192 - Radiography Clinical 2

### **526-231**

## **Imaging Modalities**

**Credits: 2.00**

This course introduces radiography students to other types of imaging, including ultrasound, MRI, mammography, and bone density scans. Students analyze the role of various imaging technologies in health care. PREREQUISITES: Take 526-193 - Radiography Clinical 3 COREQUISITES: Take 526-194 - Imaging Equipment Operation Take 526-199 - Radiography Clinical 4

### **527-503**

#### **Conventional Wastewater Treatment**

**Credits: 1.50**

Covers the basic biology, chemistry and operational controls of wastewater treatment processes: pre- and primary treatment of wastewater, activated sludge, trickling filters and RBCs (Rotating Biological Contactors). The structure and function of major equipment is explained. Various lab tests and the calculations associated with them are presented.

### **527-505**

#### **Advanced Wastewater Treatment**

**Credits: 2.00**

Develops competence in management of wastewater treatment processes including disinfection treatment of wastewater, basic and advanced phosphorus removal, tertiary filtration, mechanical sludge handling, sludge dewatering, and sludge disposal. Students use the Internet to locate resources useful in managing wastewater treatment processes.

### **527-511**

#### **Water Chemistry**

**Credits: 2.00**

Explores basic chemical concepts and principles such as elements, compounds, states of matter, and reactions that are applicable to evaluating and regulating water quality and applies them to water and wastewater treatment. Learners also examine laboratory techniques, equipment, quality assurance, and record keeping and reporting.

### **527-520**

#### **Hydraulics of Water & Wastewater**

**Credits: 1.50**

Provides information and procedures necessary to predict and manipulate the hydraulics of water transmission and collection. The primary work assignments involve the reading and use of hydraulic principles and then applying them in a real-life case analysis as a laboratory project.

### **527-525**

#### **Industrial Wastes**

**Credits: 1.50**

Focuses on the control of wastewater resulting from the processing of a variety of industrial materials. Methods of waste initiation, impact, minimization, and the treatment of waste process streams of metal, pulp and paper, and food and beverage industry operations are emphasized and analyzed.

**527-530**

### **Groundwater Supply & Distribution**

**Credits: 1.50**

Provides environmental and treatment information necessary to operate a potable groundwater well system. Basic distribution system design and component use will also be detailed. Students examine a groundwater treatment plant and make operational assessments based on established industry criteria.

**527-536**

### **Equipment Maintenance & Instrumentation**

**Credits: 2.00**

Develops skills in the identification and application of tools, correcting facility and system mechanical problems, and understanding the complete concept of preventative and predictive maintenance. Students will research preventative and predictive maintenance systems. Skills will be developed using instrumentation for process control. Supervisory Control and Data Acquisition including control diagrams, designs and applications will be studied.

**530-159**

### **Healthcare Revenue Management**

**Credits: 3.00**

Prepares learners to compare and contrast health care payers, illustrate the reimbursement cycle, and to comply with regulations related to fraud and abuse. Learners assign payment classifications with entry level proficiency using computerized encoding and grouping software. PREREQUISITES: Complete course 530-161 - Health Quality Management with a minimum grade C

**530-161**

### **Health Quality Management**

**Credits: 3.00**

Explores the programs and processes used to manage and improve healthcare quality. Addresses regulatory requirements as related to performance measurement, assessment, and improvement, required monitoring activities, risk management and patient safety, utilization management, and medical staff credentialing. Emphasizes the use of critical thinking and data analysis skills in the management and reporting of data. PREREQUISITES: Complete course 530-167 - Management of HIM Resources minimum grade C

**530-162**

### **Foundations of HIM**

**Credits: 3.00**

Introduces learners to the healthcare delivery system, and the external forces that influence healthcare delivery. Sets an understanding for the expectations and standards related to professional ethics, confidentiality and security of health information. Differentiates the use and structure of healthcare data elements, data standards, and the relationships between them. Prepares learners to collect and maintain health data to ensure a complete and accurate health record. COREQUISITES: Take 501-107 - Digital Literacy for Healthcare Take 501-101 - Medical Terminology

### **530-163**

#### **Healthcare Stats and Analytics**

**Credits: 3.00**

Explores the management of medical data for statistical purposes focusing on descriptive and inferential statistics including definition, collection, calculation and compilation of numerical data. Examines data analytics, retrieval, presentation and research methodologies. PREREQUISITES: Complete course 530-162 - Foundations of HIM with a minimum grade of C Take 804-189 - Statistics, Introductory; minimum Grade C,TR;

### **530-164**

#### **Health Informatics, Intro to**

**Credits: 3.00**

Emphasizes the role of information technology in healthcare through an investigation of the electronic health record (EHR), business, and health information software applications. Learners will develop skills to assist in enterprise information management and database architecture design and implementation. PREREQUISITES: Take 530-162 - Foundations of HIM Take 804-189 - Statistics, Introductory

### **530-165**

#### **Intermediate Coding**

**Credits: 3.00**

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation and official coding guidance to support appropriate reimbursement. Students will participate in CDI activities, including preparation of appropriate physician queries in accordance with compliance guidelines. PREREQUISITES: Complete course 530-199 - ICD Procedure Coding minimum grade C

### **530-166**

#### **HIT Capstone**

**Credits: 1.00**

Prepares the student to enter the workforce. Topics may include resume and cover letter writing, interviewing skills, portfolio preparation, and RHIT examination preparation. COREQUISITES: Complete previous or concurrently with course 530-196 - Professional Practice Professional Practice 1

### **530-167**

#### **Management of HIM Resources**

**Credits: 3.00**

Examines the principles of management to include planning, organizing, human resource management, directing, and controlling as related to the health information department. PREREQUISITES: Complete course 530-178 - Healthcare Legal and Ethical Issues Healthcare Law & Ethics with a minimum grade C or TR

### **530-178**

#### **Healthcare Legal and Ethical Issues Healthcare Law & Ethics**

**Credits: 2.00**

This course examines regulations for the content, use, confidentiality, disclosure, and retention of health information. An overview of the legal system and ethical issues are addressed. COREQUISITES: Complete course 530-162 - Foundations of HIM

### **530-182**

#### **Human Disease for Health Professions**

**Credits: 3.00**

This course focuses on the common diseases of each body system as encountered in all types of health care settings by health information professionals. Emphasis is placed on understanding the etiology (cause), signs and symptoms, diagnostic tests, and treatment (including pharmacologic) of each disease. PREREQUISITES: Take 501-101 - Medical Terminology Take 530-162 - Foundations of HIM COREQUISITES: Complete course 806-177 - General Anatomy and Physiology

### **530-184**

#### **CPT Coding**

**Credits: 3.00**

Prepares learners to assign CPT/HCPCS codes, supported by medical documentation, with entry level proficiency. Learners apply instructional notations, conventions, rules, and official coding guidelines when assigning codes to case studies and actual medical record documentation. PREREQUISITES: Complete course 530-197 - ICD Diagnosis Coding

### **530-185**

#### **Healthcare Reimbursement**

**Credits: 2.00**

This course prepares students to compare and contrast health care payers and to comply with regulations related to fraud and abuse. Specific topics include inpatient and outpatient payment systems, fraud and abuse issues regarding coding of health care services, and an illustration of the reimbursement cycle. Students assign Diagnosis Related Groups (DRGs), Ambulatory Payment Classifications (APCs), and Resource Utilization Groups (RUGs) with entry-level proficiency, using computerized encoding and grouping software.

### **530-196**

#### **Professional Practice**

**Credits: 3.00**



Applies previously acquired skills and knowledge by means of clinical experiences in the technical procedures of health record systems and discussion of clinical situations. Student may participate in a supervised clinical experience in healthcare facilities. COREQUISITES: Take 530-159 - Healthcare Revenue Management Take 530-165 - Intermediate Coding Take 530-166 - HIT Capstone

### **530-197**

#### **ICD Diagnosis Coding**

**Credits: 3.00**

Prepares students to assign ICD diagnosis codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation. PREREQUISITES: Take 530-182 - Human Disease for Health Professions Take 501-101 - Medical Terminology Take 806-177 - General Anatomy and Physiology

### **530-199**

#### **ICD Procedure Coding**

**Credits: 2.00**

Prepares students to assign ICD procedure codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation. PREREQUISITES: TAKE 806-177 - General Anatomy and Physiology MINIMUM GRADE C OR TR TAKE 530-162 - Foundations of HIM MINIMUM GRADE C OR TR

### **531-312**

#### **EMR to EMT I**

**Credits: 2.00**

In this course, learners build foundational skills and knowledge needed to become an Emergency Medical Technician (EMT) candidate, while also meeting all requirements for Emergency Medical Responder (EMR) candidates. The learner examines lifesaving topics including, basic anatomy and physiology, patient assessment, traumatic injury management, airway management, cardiac management and basic medical care. Upon completion of the course, learners will be eligible to participate in the National Registry of EMT's Emergency Medical Responder exams required for Wisconsin EMR certification. PREREQUISITES: Student must be accepted to program 30-531-3, Emergency Medical Technician, in order to register for this course.

### **531-313**

#### **EMR to EMT Part II**

**Credits: 3.00**

In this course, learners build upon the base knowledge of the EMR/EMT Part 1 course. The learner examines lifesaving topics including: expanded anatomy, physiology, and pathophysiology; disease processes; more complex patient assessment; and; critical thinking skills. In addition, learners may be able to apply additional skills allowed by the Wisconsin Department of Health Services/EMS Section Scope of Practice for EMT's. Upon

completion of the course, learners will be eligible to participate in the National Registry of EMT's Emergency Medical Technician exam required for Wisconsin EMT certification. PREREQUISITES: Student must be accepted to program 30-531-3 Emergency Medical Technician to be eligible to register for this course. Complete course 531-312 - EMR to EMT I minimum grade C

### **531-327**

#### **Advanced EMT**

**Credits: 4.00**

If you currently hold a State of Wisconsin licensure as an Emergency Medical Technician (EMT), you can pursue additional training in intravenous access, fluid and medication administration, clinical decision making skills, and patient assessment at this advanced level. Upon completion of the didactic, lab, and clinical components of this program, the participant will be eligible for testing and credentialing through the National Registry of Emergency Medical Technicians®. PREREQUISITES: Student must be accepted to program 30-531-6, Advanced Emergency Medical Technician, in order to register for this course.

### **531-911**

#### **EMS Fundamental**

**Credits: 2.00**

This course provides the paramedic student with comprehensive knowledge of EMS systems, safety, wellbeing, legal issues, and ethical issues, with the intended outcome of improving the health of EMS personnel, patients, and the community. The students will obtain fundamental knowledge of public health principles and epidemiology as related to public health emergencies, health promotion, and illness/injury prevention. Introducing students to comprehensive anatomical and medical terminology and abbreviations will foster the development of effective written and oral communications with colleagues and other health care professionals. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or Achieve the required placement test score Student must be accepted to program 31-531-1 EMT-Paramedic, 10-531-1 Paramedic Technician, or 10-531-2 Fire Medic in order to register for this course.

### **531-912**

#### **Paramedic Medical Principles**

**Credits: 4.00**

This course address the complex depth of anatomy, physiology, and pathophysiology of major human systems while also introducing the paramedic students to the topics of shock, immunology, and bleeding. COREQUISITES: Course 531-911 - EMS Fundamental

### **531-913**

#### **Advanced Patient Assessment Principles**

**Credits: 3.00**

This course teaches the paramedic student to integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. By utilizing a structured and organized

assessment process with knowledge of anatomy, physiology, pathophysiology, life span development, and changes that occur to the human body with time, the students will learn to develop a list of differential diagnoses through clinical reasoning, along with the ability to modify the assessment as necessary to formulate a treatment plan for their patient. COREQUISITES: Course 531-911 - EMS Fundamental

### **531-914**

#### **Adv. Pre-Hospital Pharmacology**

**Credits: 3.00**

This course provides the paramedic student with the comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the overall health of the patient. COREQUISITES: Course 531-911 - EMS Fundamental

### **531-915**

#### **Paramedic Respiratory Mgt.**

**Credits: 2.00**

This course teaches the paramedic student to integrate complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages. Specific knowledge pertaining to the respiratory system is also provided to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a patient with a respiratory complaint.

COREQUISITES: Course 531-914 - Adv. Pre-Hospital Pharmacology

### **531-918**

#### **Adv. Emergency Resuscitation**

**Credits: 1.00**

By teaching Advanced Cardiac Life Support ('ACLS') and Pediatric Advanced Life Support ('PALS') methodologies and protocols, this course prepares the paramedic student in the integration of comprehensive knowledge of causes and pathophysiology into the management of shock, respiratory failure, respiratory arrest, cardiac arrest, and peri-arrest states with an emphasis on early intervention to prevent respiratory and/or cardiac arrest if possible. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

### **531-919**

#### **Paramedic Medical Emergencies**

**Credits: 4.00**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a medical complaint. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

### **531-920**

#### **Paramedic Trauma**

**Credits: 3.00**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for an acutely injured patient. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

**531-921****Special Patient Populations****Credits: 3.00**

This course teaches the paramedic student to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for patients with special needs. Gynecological emergencies, along with special considerations in trauma are also included within this course. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

**531-922****EMS Operations****Credits: 1.00**

This course provides the paramedic student with the knowledge of operational roles and responsibilities to ensure patient, public, and EMS personnel safety. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

**531-923****Paramedic Capstone****Credits: 1.00**

This course provides the student with a final opportunity to incorporate their cognitive knowledge and psychomotor skills through labs and scenario-based practice and evaluations prior to taking the National Registry written and practical examinations. Technical skills attainment for each student will be completed and/or documented within this course as required by the DHS-approved paramedic curriculum. COREQUISITES: Course 531-955 - Paramedic Cardiology 1

**531-925****Paramedic Human Patient Simulation Lab****Credits: 4.00**

This course reinforces student learning through the practice of paramedicine in a controlled environment utilizing high-fidelity patient simulators and realistic emergency response scenarios with support and guidance of instructors. The student will apply assessment knowledge and demonstrate paramedic level skills in a variety of emergency response scenarios and assessments. COREQUISITES: Take course 531-912 - Paramedic Medical Principles concurrent or previous

**531-926****Paramedic Hospital Field**

**Credits: 1.00**

This initial course provides the student with the foundation and opportunities to enhance his or her learning through the practice of paramedicine in both prehospital and health care environment with actual patient care experiences under the supervision of approved preceptors. COREQUISITES: Take course 531-912 - Paramedic Medical Principles current or previous

**531-927**

**Paramedic Hospital Field II**

**Credits: 2.00**

This course provides the student with the opportunity to enhance his or her learning through the practice of paramedicine in both prehospital and health care environment with actual patient care experiences under the supervision of approved preceptors. COREQUISITES: Course 531-955 - Paramedic Cardiology 1 is required

**531-955**

**Paramedic Cardiology 1**

**Credits: 2.00**

This course will provide the student with the basic knowledge to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment for the patient with cardiovascular disease. COREQUISITES: Course 531-915 - Paramedic Respiratory Mgt.

**531-956**

**Paramedic Cardiology 2**

**Credits: 2.00**

This course teaches the paramedic student knowledge and skills to integrate assessment findings with principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a comprehensive treatment plan for a patient with a variety of cardiovascular complaints. PREREQUISITES: Course 531-955 - Paramedic Cardiology 1 with a minimum grade of C or TR

**533-100**

**Deafness/Intro to**

**Credits: 2.00**

This course is an overview of topics impacting the Deaf/Hard of Hearing communities. It is designed to assist those interested in learning about this diverse population of people.

**533-109**

**Deaf Culture in America**

**Credits: 3.00**

This course will expose the students to Deaf culture since its beginnings in the United States. It will discuss famous Deaf Americans and how they have impacted the lives of Deaf and hearing people in America.

**533-125****Special Education And, Introduction to Deafness****Credits: 3.00**

This course is an introduction to the educational process involving a deaf/hard of hearing child and a focus on deafness and how it impacts other aspects of disability.

**533-126****American Sign Language 1****Credits: 2.00**

This course is the first in a series of 4 courses. It is designed for students with no or minimal sign language experience. The course will help students develop the skills and knowledge needed to communicate in American Sign Language (ASL). The student will be introduced to the visual language used by the Deaf Community in North America. The student will be exposed to an introduction to receptive and expressive ASL vocabulary, grammatical structures, finger spelling, numbers, conversational behavior and Non-Manual Signals.

**533-127****American Sign Language 2****Credits: 2.00**

This course is the second in a series of 4. The student will develop the skills and knowledge needed to communicate in American Sign Language (ASL). This course is for students who have successfully completed ASL 1. The students will focus on the cultural behaviors and practices distinct to those that approach the world from a visual perspective. Students will further explore receptive and expressive ASL vocabulary, grammatical structures, finger spelling, numbers, conversational behaviors and Non-Manual Signals. PREREQUISITES: Course 533-126 - American Sign Language 1

**533-128****American Sign Language 3****Credits: 2.00**

This course is the third in a series of 4 courses designed to enhance the skills and knowledge needed to communicate in American Sign Language (ASL). This course is for students who have successfully completed ASL 2. The course focuses on the cultural behaviors and practices distinct to those that approach the world from a visual perspective. The course begins to implement the skills acquired in ASL 1 & 2. It will cover more complex grammatical topics including temporal aspects, sequencing, conditionals, an introduction to conversational regulators, complex dialogue, storytelling and multiple meaning English terms with ASL equivalents. PREREQUISITES: Course 533-127 - American Sign Language 2

**533-129****ASL 4****Credits: 2.00**

This course is the last in a series of 4 courses designed to advance the skills and knowledge needed to communicate in American Sign Language (ASL). This course is for students who have successfully completed ASL 3. The course focuses on the cultural behaviors and practices distinct to those that approach the world from a visual perspective. This course will integrate the skills acquired in ASL 1, 2, & 3. It will expand the use of conversational regulators and include an introduction to English idioms with ASL equivalents. These additional skills will enable students to convey information and ideas about linguistic, cultural and social issues, in dialogues and narratives. PREREQUISITES: Course 533-128 - American Sign Language 3

### **533-130**

#### **Intro to Deaf History**

**Credits: 2.00**

This course will cover various aspects of the deaf community including culture, history, and the technology used within the community. This course is ideal for those planning to work within a service occupation, education, or a health-related field.

### **533-131**

#### **ASL for Native Signers**

**Credits: 2.00**

This course is for individuals who have grown up using sign language to communicate with family members. It will cover several linguistic aspects of ASL, historical influences, and cultural implications of being a hearing member of the deaf community.

### **536-101**

#### **Sterile Techniques for Pharmacy Tech**

**Credits: 3.00**

Prepares the learner to utilize aseptic technique in preparing parenteral products, compare parenteral solutions and routes, identify equipment used to prepare parenteral products, perform parenteral calculations, prevent parenteral incompatibilities, prepare cytotoxic medications, and apply safe disposal of hazardous products. PREREQUISITES: Courses 536-105 - Pharmacy Community Clinical 536-108 - Pharmacy Services I; minimum grade C

### **536-103**

#### **Pharmacy Hospital Clinical**

**Credits: 2.00**

In this course, students will have the opportunity to experience the daily activities of a pharmacy technician in a hospital pharmacy setting. Students will learn how medication orders are prepared, processed, and delivered along with maintaining medication inventory in several areas, interacting with other medical staff and following policies and procedures of the hospital and pharmacy. PREREQUISITES: Course 536-105 - Pharmacy Community Clinical and 536-108 - Pharmacy Services I COREQUISITES: Courses 536-101 - Sterile Techniques for Pharmacy Tech 536-104 - Pharmacy Benefit Management 536-107 - Pharmacy Distribution Systems 536-122 - Pharmacology for Pharmacy Technicians and 536-109 - Pharmacy Services II

## **536-104**

### **Pharmacy Benefit Management**

**Credits: 1.00**

This course prepares the learner to utilize terminology pertinent to third party reimbursements in the field of pharmacy, analyze the various popular formulary systems, calculate the selling price for a prescription based on the Average Wholesale Price (AWP) and the formula required by the Pharmacy Benefit Manager, analyze the role of the Pharmacy Benefits Manager in the health care system, and summarize medical coverage provided by government agencies. PREREQUISITES: Complete 536-108 - Pharmacy Services I minimum grade of C, TR and complete course 536-105 - Pharmacy Community Clinical

## **536-105**

### **Pharmacy Community Clinical**

**Credits: 2.00**

This course prepares the learner to apply policies and procedures in the pharmacy, complete the ordering process to meet inventory goals, bill third parties for patient prescriptions, process prescriptions, identify medical and surgical supplies for customers, process controlled substance prescriptions, compound extemporaneous products, maintain patient medical histories and fulfill duties in unique service areas. COREQUISITES: Complete course 536-108 - Pharmacy Services I

## **536-107**

### **Pharmacy Distribution Systems**

**Credits: 1.00**

Prepares the learner to analyze the changes occurring in institutional health care and the consequences for pharmacists and pharmacy technicians, analyze the unit dose packaging and distribution system, compare various hospital or nursing home pharmacy administrative and physical designs, compare different distribution systems used in hospital or nursing homes. PREREQUISITES: Course 536-108 - Pharmacy Services I with minimum grade C and course 536-105 - Pharmacy Community Clinical

## **536-108**

### **Pharmacy Services I**

**Credits: 4.00**

In this course, students simulate, in a lab, the daily tasks performed by pharmacy technicians in outpatient and inpatient settings. Students analyze: prescription processing, patient profile information, pharmacy practice, patient safety, market employment skills, pharmacy front-of-store operations, extemporaneous compound preparation, and customer service. Filling and maintaining drug stock in the inpatient environment are investigated. Students practice interpreting prescriber orders, labeling patient specific orders, and reconciling medication in the inpatient environment. Upon completion of the course, student will be able to perform basic pharmacy technician services. COREQUISITES: #take 536-110 - Pharmacy Calculations 536-115 - Pharmacy Law 536-121 - Fundamentals of Reading Prescriptions;

## **536-109**



## **Pharmacy Services II**

**Credits: 2.00**

In this course, students build on skills developed in Pharmacy Services I. Students simulate tasks in both outpatient and inpatient settings. Upon completion of the course, students will be able to perform the daily tasks of advanced level pharmacy technicians. PREREQUISITES: Complete courses 536-108 - Pharmacy Services I and 536-105 - Pharmacy Community Clinical

### **536-110**

#### **Pharmacy Calculations**

**Credits: 3.00**

Prepares the learner to convert weights and volumes between the avoirdupois, the apothecary, and the metric systems of measurement; unitize ratios & proportions; reduce and enlarge pharmaceutical formulas; calculate medication quantities from percent w/w, w/v, v/v, ppm, and ratio concentrations; perform dilution calculations; utilize the 'alligation' method; solve problems related to electrolyte solutions; convert temperatures between the Fahrenheit and Celsius scales; convert military and standard time; and calculate individualized patient doses based on body surface area, age, and/or weight of the patient. PREREQUISITES: Course 834-109 - Pre-Algebra with a minimum grade of B- or math full College placement

### **536-115**

#### **Pharmacy Law**

**Credits: 2.00**

This course prepares the learner to apply Federal laws to the practice of pharmacy; apply Wisconsin State laws to the practice of pharmacy; select appropriate drug products for substitution in accordance with the law; explain the Investigational New Drug (IND) process; explain pharmacy equipment, license, and floor plan legal requirement; apply controlled substance laws to the procurement, processing, and record keeping of controlled substances; analyze the history of pharmacy law; and summarize drug law enforcement agencies.

### **536-121**

#### **Fundamentals of Reading Prescriptions**

**Credits: 2.00**

This course prepares the learner to match the brand name and generic name of commonly prescribed medications, determine the pharmacologic classes of commonly prescribed medication, determine the appropriate auxiliary labels to be placed on prescription bottles for commonly prescribed medications, determine if a prescribed medication is a controlled substance and to which schedule it belongs, analyze prescriptions for appropriateness of drug and dosing schedule, and interpret Latin abbreviations used in the practice of Pharmacology.

### **536-122**

#### **Pharmacology for Pharmacy Technicians**

**Credits: 3.00**

The purpose of this course is to provide a comprehensive overview of the principles of pharmacology and pharmacokinetics including the understanding of disease states within each body system and the effects of the medications in treating the conditions. Students will learn the cautions involved in adverse drug effects, food and drug interactions, and drug-disease contraindications. Students are expected to learn the brand and generic drug names from the TOP 200 Drugs List as well as their therapeutic classifications, indications, common strengths, and essential terminology needed to become a successful Pharmacy Technician.

PREREQUISITES: Courses 536-108 - Pharmacy Services I minimum grade C and 536-105 - Pharmacy Community Clinical

### **543-101**

#### **Nursing Fundamentals**

**Credits: 2.00**

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/ electrolyte balance.

PREREQUISITES: Course 806-177 - General Anatomy and Physiology with a minimum grade of B-

COREQUISITES: Course 801-136 - English Composition 1

### **543-102**

#### **Nursing Skills**

**Credits: 3.00**

This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. PREREQUISITES: Course 806-177 - General Anatomy and Physiology with a minimum grade of B-

### **543-103**

#### **Nursing Pharmacology**

**Credits: 2.00**

This course introduces the principles of pharmacology, including drug classification and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medication.

PREREQUISITES: Course 806-177 - General Anatomy and Physiology with a minimum grade of B-

### **543-104**

#### **Nsg: Intro Clinical Practice**

**Credits: 2.00**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients. Emphasis is placed on performing basic nursing skills, the formulation of nurse-client relationships, communication, data collection, documentation, and medication administration.

PREREQUISITES: Course 806-177 - General Anatomy and Physiology with a minimum grade of B-

COREQUISITES: Complete 543-101 - Nursing Fundamentals Complete 543-102 - Nursing Skills Complete 543-103 - Nursing Pharmacology

### **543-105**

#### **Nursing Health Alterations**

**Credits: 3.00**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. It will also introduce concepts of leadership, team building, and scope of practice. PREREQUISITES: Complete 543-101 - Nursing Fundamentals with a minimum grade of C or TR Complete 543-102 - Nursing Skills with a minimum grade of C or TR Complete 543-103 - Nursing Pharmacology with a minimum grade of C or TR Complete 543-104 - Nsg: Intro Clinical Practice with a minimum grade of C or TR Complete course 801-136 - English Composition 1

### **543-106**

#### **Nursing Health Promotion**

**Credits: 3.00**

This course will cover topics related to health promotion in the context of the family. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families, we will discern patterns associated with adaptive and maladaptive behaviors, applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development. PREREQUISITES: Complete 809-188 - Psychology, Developmental Complete 543-101 - Nursing Fundamentals with a minimum grade of C or TR Complete 543-102 - Nursing Skills with a minimum grade of C or TR Complete 543-103 - Nursing Pharmacology with a minimum grade of C or TR Complete 543-104 - Nsg: Intro Clinical Practice with a minimum grade of C or TR Complete course 801-136 - English Composition 1

### **543-107**

#### **Nursing: Clinical Care Across the Lifesp Lifespan**

**Credits: 2.00**

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. PREREQUISITES: Complete 543-101 - Nursing Fundamentals Complete 543-102 - Nursing Skills Complete 543-103 - Nursing Pharmacology Complete 543-104 - Nsg: Intro Clinical Practice COREQUISITES: Complete 543-106 - Nursing Health Promotion

## **543-108**

### **Nursing: Introduction to Clinical Care Management**

**Credits: 2.00**

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients. It also provides an introduction to leadership, management, and team building. PREREQUISITES: Complete 543-101 - Nursing Fundamentals Complete 543-102 - Nursing Skills Complete 543-103 - Nursing Pharmacology Complete 543-104 - Nsg: Intro Clinical Practice COREQUISITES: Complete 543-105 - Nursing Health Alterations

## **543-109**

### **Nursing Complex Health Alterations I**

**Credits: 3.00**

Complex Health Alterations I prepares the learner to expand knowledge from previous courses in caring for clients with alterations in musculoskeletal, cardiovascular, respiratory, endocrine, and hematologic systems, as well as clients with fluid/electrolyte and acid-base imbalances and alterations in comfort. PREREQUISITES: Complete course 543-105 - Nursing Health Alterations minimum grade C or TR Complete course 543-106 - Nursing Health Promotion minimum grade C or TR Complete course 543-107 - Nursing: Clinical Care Across the Lifesp Lifespan minimum grade C or TR Complete course 543-108 - Nursing: Introduction to Clinical Care Management minimum grade C or TR Complete course 806-179 - Anatomy and Physiology, Advanced minimum grade B- COREQUISITES: Complete course 806-197 - Microbiology

## **543-110**

### **Nursing Mental Health Community Concepts**

**Credits: 2.00**

This course will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/ maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups. PREREQUISITES: Complete 543-105 - Nursing Health Alterations minimum grade C or TR Complete 543-106 - Nursing Health Promotion minimum grade C or TR Complete 543-107 - Nursing: Clinical Care Across the Lifesp Lifespan minimum grade C or TR Complete 543-108 - Nursing: Introduction to Clinical Care Management minimum grade C or TR Complete 806-179 - Anatomy and Physiology, Advanced minimum grade B- COREQUISITES: Complete 809-198 - Psychology, Introduction to

## **543-111**

### **Nursing Intermediate Clinical Practice**

**Credits: 3.00**

This intermediate level clinical course develops the RN role when working with clients with complex health care needs. A focus of the course is developing skills needed for managing multiple clients and priorities. Using the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. PREREQUISITES: Complete 543-105 - Nursing Health Alterations minimum grade C or TR Complete 543-106 - Nursing Health Promotion minimum grade C or TR Complete 543-

107 - Nursing: Clinical Care Across the Lifespan minimum grade C or TR Complete 543-108 - Nursing: Introduction to Clinical Care Management minimum grade C or TR COREQUISITES: Complete 543-109 - Nursing Complex Health Alterations I Complete 543-110 - Nursing Mental Health Community Concepts Complete 543-112 - Nursing Advanced Skills

### **543-112**

#### **Nursing Advanced Skills**

**Credits: 1.00**

This course focuses on the development of advanced clinical skills. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation, and nasogastric/feeding tube insertion. PREREQUISITES: Complete 543-105 - Nursing Health Alterations minimum grade C or TR Complete 543-106 - Nursing Health Promotion minimum grade C or TR Complete 543-107 - Nursing: Clinical Care Across the Lifespan minimum grade C or TR Complete 543-108 - Nursing: Introduction to Clinical Care Management minimum grade C or TR Complete 806-179 - Anatomy and Physiology, Advanced minimum grade B-

### **543-113**

#### **Nursing Complex Health Alterations II**

**Credits: 3.00**

Complex Health Alterations II prepares the learner to expand knowledge and skills from previous courses in caring for clients with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, and reproductive systems. The learner will also focus on management of care for clients with high risk perinatal conditions, high risk newborns, and the ill child. Synthesis and application of previously learned concepts will be evident in the management of clients with critical/life threatening situations. PREREQUISITES: Complete 543-109 - Nursing Complex Health Alterations I minimum grade C or TR Complete 543-110 - Nursing Mental Health Community Concepts minimum grade C or TR Complete 543-111 - Nursing Intermediate Clinical Practice minimum grade C or TR Complete 543-112 - Nursing Advanced Skills minimum grade C or TR Complete 806-197 - Microbiology minimum grade C or TR

### **543-114**

#### **Nursing Management and Professional Concepts**

**Credits: 2.00**

This course covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice. PREREQUISITES: Complete 543-109 - Nursing Complex Health Alterations I minimum grade C or TR Complete 543-110 - Nursing Mental Health Community Concepts minimum grade C or TR Complete 543-111 - Nursing Intermediate Clinical Practice minimum grade C or TR Complete 543-112 - Nursing Advanced Skills minimum grade C or TR

### **543-115**

#### **Nursing Advanced Clinical Practice**

**Credits: 3.00**

This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized. PREREQUISITES: Complete course 543-109 - Nursing Complex Health Alterations I minimum grade C or TR Complete course 543-110 - Nursing Mental Health Community Concepts minimum grade C or TR Complete course 543-111 - Nursing Intermediate Clinical Practice minimum grade C or TR Complete course 543-112 - Nursing Advanced Skills minimum grade C or TR COREQUISITES: Complete course 543-113 - Nursing Complex Health Alterations II Complete course 543-114 - Nursing Management and Professional Concepts

### **543-116**

#### **Nursing Clinical Transition**

**Credits: 2.00**

This clinical experience prepares the student to assume the role of graduate nurse. The course promotes clinical decision-making, delegation, and collaboration to achieve client and organizational outcomes. Continued professional development is fostered. PREREQUISITES: Complete course 543-109 - Nursing Complex Health Alterations I minimum grade C or TR Complete course 543-110 - Nursing Mental Health Community Concepts minimum grade C or TR Complete course 543-111 - Nursing Intermediate Clinical Practice minimum grade C or TR Complete course 543-112 - Nursing Advanced Skills minimum grade C or TR COREQUISITES: Complete course 543-113 - Nursing Complex Health Alterations II Complete course 543-114 - Nursing Management and Professional Concepts; Complete course 543-115 - Nursing Advanced Clinical Practice

### **543-122**

#### **Simulation for Healthcare Educators**

**Credits: 3.00**

This course prepares educators to integrate human patient simulation into the classroom. Students will learn about the history, evolution, and educational theories of simulation. They will be introduced to modalities of simulation that can be used in healthcare programs to reinforce critical thinking skills in health occupations students in a safe environment. The course will include creation of high fidelity simulations, standardized patient scenarios, and have the opportunity to implement them. Explore concepts including evaluation, debriefing, and future research in simulation. The goal of the course is to promote excellence in simulation education.

### **543-123**

#### **Milit Med Fundamental and Pharm Appl**

**Credits: 2.00**

This course focuses on the integration of basic nursing fundamentals and pharmacology nursing concepts to provide evidenced-based care to diverse patient populations across the lifespan. Emphasis is on the use of the components of the nursing process when administering medications.

### **543-124**

#### **Milit Med Skills Theory and Simulation**

**Credits: 2.00**

This course provides students with the opportunity while using simulation to demonstrate and perform skills commonly delegated to and within the scope of practice of the Licensed Practical Nurse (LPN) including collecting data and reporting patient responses relative to designated skills; skills include but are not limited to; utilization of the nursing process in collaboration with other health care team members and patient/families to address health care needs of individuals/families across the lifespan; communication both verbal and written; the use of information technology; drug calculation and administration of medications within the LPN scope of practice.

**543-125****Trans; Mili Med to Nursing Profession****Credits: 1.00**

This course is designed to facilitate the transition of military health care veterans into the Professional nurse role. Topics include: introduction to the healthcare delivery system, nursing roles within the healthcare delivery system, communication and collaboration with other members of the health care team. In addition to the exploration of the nursing process, documentation, safety, legal, ethical issues and information technology. The patient-needs framework of the curriculum and nursing process will be explored.

**543-126****Application of Complex Nursing Concepts****Credits: 2.00**

This course will prepare the learner, through the application of simulation, to provide care across the lifespan to complex patients with alterations in the cardiovascular, respiratory, endocrine, and hematologic systems, as well as patients with fluid/electrolyte and acid base imbalances, and pain. PREREQUISITES: Complete course 543-109 - Nursing Complex Health Alterations I

**543-127****Paramedic to ADN Theory 1****Credits: 3.00**

This course focuses on nursing concepts necessary to provide evidence-based care to diverse patient populations across the lifespan. The nursing process is implemented to relate care of patients throughout the lifespan with alterations in cognition, elimination, comfort, grief/loss, mobility, skill integrity, and fluid/electrolyte balance and related principles of pharmacology. PREREQUISITES: Complete course 806-177 - General Anatomy and Physiology with a minimum grade of C or TR Student must be accepted to 10-809-0, the Paramedic to ADN Student must be accepted to 10-809-0 Paramedic to ADN Bridge program in order to register for this course. COREQUISITES: Complete course 543-130 - Paramedic to ADN Skills previous or concurrently

**543-128****Paramedic to ADN Theory 2****Credits: 3.00**

This course introduces principles of nursing care of the developing family, including reproductive and mental health issues, pregnancy, labor and delivery, post-partum, the newborn, and child. It includes integrated understanding of related pharmacology and study of family dynamics and grief/loss. PREREQUISITES: Student must be accepted to 10-809-0 Paramedic to ADN program to register for this course. Complete course 543-127 - Paramedic to ADN Theory 1 with a minimum grade of C or TR Complete course 543-130 - Paramedic to ADN Skills with a minimum grade of C or TR COREQUISITES: Complete course 543-129 - Paramedic to ADN Clinical previous or concurrently

### **543-129**

#### **Paramedic to ADN Clinical**

**Credits: 2.00**

This introductory clinical emphasizes basic nursing skills and application of nursing process to clients and families across the lifespan. Emphasis placed on assessment, relationships, communication, data collection, documentation, and medication administration. COREQUISITES: Complete course 543-127 - Paramedic to ADN Theory 1 with a minimum grade of C or TR Complete course 543-128 - Paramedic to ADN Theory 2 Complete course 543-130 - Paramedic to ADN Skills with a minimum grade of C or TR

### **543-130**

#### **Paramedic to ADN Skills**

**Credits: 2.00**

This course prepares the student to perform basic nursing skills and physical assessment across the lifespan. It includes medication calculations, aseptic technique, wound care, tracheotomy care, suctioning, management of enteral tubes, medication administration, enemas, ostomy care, and catheterization. PREREQUISITES: Complete course 806-177 - General Anatomy and Physiology with minimum grade C or TR COREQUISITES: Complete 543-127 - Paramedic to ADN Theory 1

### **543-199**

#### **Clinical Reasoning in Nursing**

**Credits: 3.00**

This course introduces basic concepts of critical thinking to the nursing student. Identification of critical thinking skills and common characteristics related to these skills will be applied to the the nursing process. The goal of this course is to enhance clinical reasoning skills through application and practice in human patient simulation. Students will gain skills in critical thinking to use in everyday life as well as their academic and nursing career. PREREQUISITES: Course 543-101 - Nursing Fundamentals with a minimum grade of C or TR

### **543-300**

#### **Nursing Assistant**

**Credits: 2.00**

The Nursing Assistant program prepares students for employment as nursing assistants. The program also prepares students for other health-related programs. During the 75-hour course, students will be required to demonstrate the following skills under the supervision of a licensed nurse: communication, basic nursing



assistant and personal care skills, attention to client's rights, and care of clients with dementias. The program is recognized by the Wisconsin Department of Health Services as a nurse-aide training program. Upon successful completion of the program, the student is eligible to take the Wisconsin Nursing Assistant competency evaluation for inclusion on the Wisconsin Nurse Aide Registry and employment in nursing homes, hospitals, home health agencies, hospices, CBRF's, assisted living centers and homes for the developmentally disabled. PREREQUISITES: Student must be accepted to program 30-543-1, Nursing Assistant, or to the certificate 90-543-6, Nursing Assistant to be eligible to register for this course.

### **543-301**

#### **Nursing Fundamentals**

**Credits: 2.00**

This course focuses on basic nursing concepts to provide evidence-based care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients.

PREREQUISITES: Take 806-177 - General Anatomy and Physiology; Minimum Grade B- COREQUISITES: Take 801-136 - English Composition 1; Minimum Grade C

### **543-302**

#### **Nursing Skills**

**Credits: 3.00**

This course focuses on the development of evidence-based clinical skills and physical assessment across the lifespan. Content includes mathematical calculations and conversions related to clinical skills. In addition, the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach. PREREQUISITES: Take 806-177 - General Anatomy and Physiology; Minimum Grade B-

### **543-303**

#### **Nursing Pharmacology**

**Credits: 2.00**

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

PREREQUISITES: Take 806-177 - General Anatomy and Physiology; Minimum Grade B-

### **543-304**

#### **Nursing: Intro to Clinical Practice**

**Credits: 2.00**

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients across the lifespan. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration. PREREQUISITES: Take 806-177 - General Anatomy and Physiology; Minimum Grade B- COREQUISITES: Take 543-301 - Nursing Fundamentals Take 543-302 - Nursing Skills Take 543-303 - Nursing Pharmacology

## **543-305**

### **Nursing Health Alterations**

**Credits: 3.00**

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of patients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply evidence-based nursing interventions. It will also introduce concepts of leadership and management.

PREREQUISITES: Take 543-301 - Nursing Fundamentals; Minimum Grade C Take 543-302 - Nursing Skills; Minimum Grade C Take 543-303 - Nursing Pharmacology; Minimum Grade C Take 543-304 - Nursing: Intro to Clinical Practice; Minimum Grade C Complete course 801-136 - English Composition 1;

## **543-306**

### **Nursing Health Promotion**

**Credits: 3.00**

This course focuses on topics related to health promotion for individuals and families throughout their lifespan. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices for individuals of all ages. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development. PREREQUISITES: Take 543-301 - Nursing Fundamentals; Minimum Grade C Take 543-302 - Nursing Skills; Minimum Grade C Take 543-303 - Nursing Pharmacology; Minimum Grade C Take 543-304 - Nursing: Intro to Clinical Practice; Minimum Grade C Take 809-188 - Psychology, Developmental; Complete course 801-136 - English Composition 1;

## **543-307**

### **Nursing: Clinical Care Across Lifespan**

**Credits: 2.00**

This clinical experience applies nursing concepts and therapeutic interventions to patients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized. PREREQUISITES: Take 543-301 - Nursing Fundamentals; Minimum Grade C Take 543-302 - Nursing Skills; Minimum Grade C Take 543-303 - Nursing Pharmacology; Minimum Grade C Take 543-304 - Nursing: Intro to Clinical Practice; Minimum Grade C COREQUISITES: Take 543-306 - Nursing Health Promotion

## **543-308**

### **Nursing: Intro Clinical Care Management**

**Credits: 2.00**

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of patients across the lifespan. It also provides an introduction to leadership, management, and team building.

PREREQUISITES: Take 543-301 - Nursing Fundamentals; Minimum Grade C Take 543-302 - Nursing Skills;

Minimum Grade C Take 543-303 - Nursing Pharmacology; Minimum Grade C Take 543-304 - Nursing: Intro to Clinical Practice; Minimum Grade C COREQUISITES: Take 543-305 - Nursing Health Alterations

### **550-130**

#### **Alcohol/Drug Abuse Rehabilitation**

**Credits: 3.00**

In this course, students explore substance abuse disorders. They examine the assessment, counseling, and case management of substance abuse disorders. Upon successful completion of the course, students will be able to explain the role of the human service worker in AODA Rehabilitation.

### **550-150**

#### **Psychopharmacology**

**Credits: 3.00**

This course is designed to provide an overview of the psychopharmacology of therapeutic drugs, over-the-counter drugs, illicit drugs, alcohol, nicotine and caffeine. Emphasis will be on the nervous system structure, brain function, site of action theory and on comprehending the effects of substances on these systems. Interactions, withdrawal, maternal and fetal effects will be addressed, as well as terminology and drug regulations.

### **550-154**

#### **Family and Chemical Abuse**

**Credits: 3.00**

A comprehensive study of the problems associated with chemical abuse within the family. Course focus is on the psychological and physiological trauma as well as methods of motivation toward recovery.

### **550-156**

#### **Mental Health/Substance Abuse**

**Credits: 3.00**

In this course, students explore the interaction between mental illness and substance abuse. They examine how this interaction can lead to the development of co-occurring disorder(s) and identify strategies to assess, diagnose, and treat co-occurring disorders. Upon completion of the course, students will be able to explain the unique treatment needs of people who have a coexisting mental health and substance abuse problem.

### **550-207**

#### **Psychopharmacology**

**Credits: 3.00**

This course is designed to provide an overview of the psychopharmacology of therapeutic drugs, over-the-counter drugs, illicit drugs, alcohol, nicotine and caffeine. Emphasis will be on the nervous system structure, brain function, site of action theory and on comprehending the effects of substances on these systems.

Interactions, withdrawal, maternal and fetal effects will be addressed, as well as terminology and drug regulations.

### **601-110**

#### **Air Conditioning Fundamentals**

**Credits: 3.00**

Topics covered include air conditioning principles and terms, physical principles of air movement and humidity, methods of conditioning air for comfort and health, the proper use of psychrometers, dry bulb thermometers, hygrometers, pilot tubes, recorders, manometers and barometers and the reading and interpretation of psychrometric charts and scales. COREQUISITES: Take 601-116 - Mechanical Fundamentals

### **601-111**

#### **Workplace Fundamentals**

**Credits: 1.00**

This course will introduce the student to the diverse mechanical skills required in today's workplace environment. The student will demonstrate, through practical hands-on lab exercises, skills in complying with Lock-out/Tag-out procedures and the proper care and use of common hand and power tools. General drilling, tapping, threading, and aligning will all be covered. The student will also be required to use test instruments to gather data on length, volume, area, depth, and dimensions and use electrical meters on power circuits. COREQUISITES: Course 804-370 - Mathematics I/Applied

### **601-112**

#### **Environmental Systems**

**Credits: 2.00**

This course will introduce the student to the maintenance and repair of HVAC/R equipment encountered in the workplace. Basic theory of heating, air conditioning, and refrigeration will be covered; emphasis will be placed on preventative maintenance. The student will apply theory in lab exercises demonstrating competency with general repair and the use of temperature and electrical meters, recording data, and performing adjustments to keep equipment at peak efficiency. COREQUISITES: Complete course 801-301 - Writing Principles

### **601-114**

#### **Power Plant Operating Engineer**

**Credits: 4.00**

This lecture/lab format course will introduce the student to the fundamentals of obtaining the Power Plant Operating Engineer 3rd Class certification. Topics will include heat energy transfer, steam generators, boiler construction, and codes and fuel firing. PREREQUISITES: Course 601-117

### **601-116**

#### **Mechanical Fundamentals**

**Credits: 3.00**

Topics covered include learning the various types of piping and tubing used in air conditioning and refrigeration, types of fittings, bending, brazing and soft soldering tubing, black iron pipe work, sheet metal fundamentals, using hand tools, and the recognition and practice of safety procedures while working on air conditioning and refrigeration systems.

### **601-121**

#### **Heating Systems**

**Credits: 3.00**

Topics in this course include introduction to heat principles, temperature measurement, fuels and other sources of heat, combustion, basic heating systems, basic furnace design, gas furnace design and operation, venting of furnaces, chimney or exhaust gases and system controls. PREREQUISITES: Course 601-110 - Air Conditioning Fundamentals

### **601-122**

#### **Building Performance Instrument Cert**

**Credits: 3.00**

This course will focus on certification based activities utilizing BPI equipment will provide the participant with the skills needed to correctly analyze HVAC & R equipment, assess indoor air quality and perform correct combustion set up and analysis. PREREQUISITES: Course 601-121 - Heating Systems with a minimum grade of C or TR

### **601-128**

#### **Electrical Controls and Systems**

**Credits: 3.00**

Topics in this course include basic electricity review, control circuits, three phase motors, single phase motors, solid state devices, control components and troubleshooting using control schematics and solid state controls. PREREQUISITES: Complete course 601-304 - Electricity and Electronics for HVAC COREQUISITES: Complete course 804-370 - Mathematics I/Applied

### **601-129**

#### **HVAC Systems**

**Credits: 3.00**

Topics include the installation and proper startup procedures of residential HVAC systems. Areas covered will be the installation of forced air heating equipment with a focus on the sheet metal, gas piping, venting and electrical hookups necessary to meet all code requirements. Also covered will be the installation of refrigerant lines, evaporator coils, and placement of the condensing unit. Students will leak check, evacuate and perform startup checks verifying superheat, subcooling, airflow and other vital parameters. PREREQUISITES: Take 601-110 - Air Conditioning Fundamentals Take 601-116 - Mechanical Fundamentals

### **601-130**

#### **HVAC Blueprint Reading**

**Credits: 2.00**

Topics include blueprint reading, locating, interpreting and utilizing state building codes; understanding, interpreting and utilizing architectural working drawings.

**601-131**

**Heating Systems Applications**

**Credits: 3.00**

Topics include installation and service of heating and humidifying systems, including steam and hydronic heat distribution systems, heat pumps and complete air conditioning systems and heat recovery systems.

PREREQUISITES: Course 601-121 - Heating Systems

**601-133**

**Refrigeration Fundamentals**

**Credits: 3.00**

Topics include refrigeration principles and terms, thermodynamic processes, refrigerants, vapor compression cycles, mechanical refrigeration system components, use of electrical controls, refrigeration applications and refrigeration tools and materials. PREREQUISITES: Take 601-110 - Air Conditioning Fundamentals Take 601-116 - Mechanical Fundamentals

**601-143**

**Refrigeration Applications**

**Credits: 3.00**

Topics include commercial refrigeration systems, applications, installation, servicing, troubleshooting, heat loads and piping, absorption systems and special refrigeration systems. PREREQUISITES: Take 601-110 - Air Conditioning Fundamentals Take 601-116 - Mechanical Fundamentals Take 601-133 - Refrigeration Fundamentals

**601-145**

**Electronic Energy Management**

**Credits: 3.00**

Topics include an introduction to the role of computers in the heating, ventilation and air conditioning industry, microcomputer systems and applications, programming and direct digital control (DDC). COREQUISITES: Complete course 601-147 - Control Circuit Applications

**601-147**

**Control Circuit Applications**

**Credits: 3.00**

Topics include an introduction to control circuit terminology, measuring devices and control systems. The principles of self-contained, pneumatic and electronic-electric controls are examined and applied to control

systems operation and design. PREREQUISITES: Complete course 601-128 - Electrical Controls and Systems and complete course 804-370 - Mathematics I/Applied with a minimum grade C or TR

### **601-148**

#### **HVAC Electrical Troubleshooting and Repair**

**Credits: 3.00**

This course is designed for the advanced student who has already completed the theoretical and basic hands-on classes. In this class the student will be responsible for troubleshooting and repairing a variety of HVAC/R equipment in both lab exercises and computer simulated activities. The student will be required to diagnose the faulty equipment, select the proper replacement parts, return the equipment to a working condition and for preparing a detailed work order listing all work performed. PREREQUISITES: Courses 601-147 - Control Circuit Applications and 103-143 - Computers for Professionals

### **601-149**

#### **Heat Load Estimation**

**Credits: 2.00**

This course will teach how to use Manual J from ACCA. Students will develop the skills to do residential heating and cooling heat loads. Students will calculate not only heat loss but also losses or gains due to infiltration, sun loads, etc. Students will do calculations on actual buildings in both long hand and using Right J, the computer software for Manual J. Students will also be responsible for developing recommendations for lowering heat loss by pricing energy upgrades such as insulation, window improvement, etc., and calculating payback and fuel savings.

### **601-156**

#### **Manual D Duct Design**

**Credits: 2.00**

The student will use Manual D from ACCA to design ductwork to meet static and velocity requirements. The student will learn to calculate run lengths, pressure drop through fittings, and system components for supply and return ductwork.

### **601-176**

#### **Codes I**

**Credits: 2.00**

This advanced level course will assist workers in understanding and following the National Fuel Gas Code.

### **601-304**

#### **Electricity and Electronics for HVAC**

**Credits: 3.00**

In this course, students explore electrical principles and theory. Using standard testing equipment, students measure and troubleshoot equipment. Students practice wiring and installing a variety of electrical devices and

systems. Upon completion of the course, students will be able to install, troubleshoot, and repair electrical components of air-conditioning, heating, and refrigeration systems.

### **601-305**

#### **Facility Operating Engineer LP**

**Credits: 3.00**

In this course, students relate the principles of thermodynamics to the function of boilers. They investigate boiler types and classifications. Students examine fuels, rating and efficiency, firing methods, safety, and preventative maintenance. Upon completion of the course, students will be prepared to take the examination for the Facility Operating Engineer 3rd Class license.

### **602-104**

#### **Brake Systems**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair vehicle braking systems with an introduction to ABS. (ABS diagnosis, service and repair will be addressed in the Advanced Chassis course.) PREREQUISITES: Take 602-107 - Auto Service Fundamentals Take 602-130 - Auto Shop Essentials OR 602-122

### **602-107**

#### **Auto Service Fundamentals**

**Credits: 2.00**

This automotive course focuses on developing skills in professionalism, safety and the use of basic hand and power tools in accordance with industry standards. Students are introduced to the automotive service industry and learn to use both comprehensive and manufacturer's service information to perform basic under-hood and under-car services. PREREQUISITES: Course 602-130 - Auto Shop Essentials or 602-122

### **602-109**

#### **Auto Transmission/Transaxle**

**Credits: 4.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair automatic transmission/transaxles including overhaul procedures. PREREQUISITES: Course 602-127 - Electrical & Electronic Systems 2

### **602-120**

#### **Auto Service Simulation**

**Credits: 2.00**

In this course, students use acquired skills to analyze, diagnose, and repair: engines and engines subsystems; braking systems; steering and suspension systems; electrical/electronic systems; heating, ventilation and air conditioning; and engine performance. Students work in a simulated shop environment under the direction of



Gateway's instructors. Upon completion of the course, students will apply diagnostic strategy to repair vehicle systems. PREREQUISITES: Take 602-104 - Brake Systems Take 602-124 - Steering & Suspension Systems Take 602-128 - Electrical & Electronic Systems 3 Take 602-129 - Auto Scope and Scanner Diagnostics Take 602-196 - Climate Control Systems Take 602-198 - Engine Performance 2 Take 602-205 - Engine Repair II

### **602-124**

#### **Steering & Suspension Systems**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair steering and suspension systems including wheel alignment procedures. PREREQUISITES: Take 602-107 - Auto Service Fundamentals Take 602-130 - Auto Shop Essentials OR 602-122

### **602-125**

#### **Electrical & Electronic Systems 1**

**Credits: 2.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems. Learners apply Ohm's Law to basic electrical circuit diagnosis. PREREQUISITES: Take 602-107 - Auto Service Fundamentals Take 602-130 - Auto Shop Essentials OR 602-122 COREQUISITES: Complete course 804-135 - Quantitative Reasoning or a higher-level math course.

### **602-127**

#### **Electrical & Electronic Systems 2**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems, including batteries, starting, charging, and lighting systems, and computer control systems. PREREQUISITES: Course 602-125 - Electrical & Electronic Systems 1

### **602-128**

#### **Electrical & Electronic Systems 3**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair electrical and electronic systems including driver information, horn, wiper/washer, power accessories, cruise control, air bag, anti-theft and radio systems. PREREQUISITES: Course 602-127 - Electrical & Electronic Systems 2

### **602-129**

#### **Auto Scope and Scanner Diagnostics**

**Credits: 3.00**

In this course students will learn the general theory, operation and applications of diagnostic systems. OBD scan tools, graphing multi-meters, Digital Storage Oscilloscopes and Exhaust Gas Analyzers will be used to collect vehicle data and diagnose common system failures in late model vehicles. Upon completion of this

course learners will be able to utilize OEM and aftermarket diagnostic equipment to scan, diagnose and repair some of the most complex systems on today's vehicles. Preparedness for the ASE (Automotive Service Excellence) exam is emphasized. PREREQUISITES: Take 602-197 - Engine Performance 1 Take 801-136 - English Composition 1

### **602-130**

#### **Auto Shop Essentials**

**Credits: 3.00**

In this course, students explore the automotive service environment. Students will examine automated, web-based information systems used by automotive service professionals including: Wisconsin Chapter ATCP 132 Motor Vehicle Repair, computer-generated repair orders, and Electronic Service Information Systems such as ShopKey® and ALLDATAT. Students practice using the automated tool control system, and, through observation of automotive service employers and the Gateway Auto Lab, develop an awareness of how automotive service work is performed. Upon successful completion of the course, students will be able to work safely in an automotive shop environment and navigate automated, web-based information systems, and they will have gained the knowledge to earn industry-recognized torque and precision measuring certifications through NC3.

### **602-131**

#### **Automotive Service Internship**

**Credits: 2.00**

In this course, students use acquired skills to analyze, diagnose, and repair: engines and engine subsystems; braking systems; steering and suspension systems; electrical/electronic systems; heating, ventilation and air conditioning; and engine performance. Students work in a shop environment under the direction of a master technician. Upon completion of the course, students will apply diagnostic strategy to repair vehicle systems.

### **602-149**

#### **Manual Drive Train and Axles**

**Credits: 4.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair clutches, manual transmissions/transaxle, differentials, four wheel drive/all wheel drive, and drive axles.

PREREQUISITES: Take 602-130 - Auto Shop Essentials OR 602-122 Take 602-107 - Auto Service Fundamentals

### **602-195**

#### **Advanced Chassis Systems**

**Credits: 2.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair antilock brake, vehicle stability enhancement, and electronic steering and suspension systems. PREREQUISITES: Take 602-104 - Brake Systems Take 602-124 - Steering & Suspension Systems Take 602-127 - Electrical & Electronic Systems 2

### **602-196**

#### **Climate Control Systems**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair climate control systems including heating, cooling, and air distribution. Upon successful completion of the Mobile Refrigerant Handling unit (ATCP-136), a state certificate will be issued. PREREQUISITES: Course 602-127 - Electrical & Electronic Systems 2

**602-197**

**Engine Performance 1**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair powertrain control and ignition systems. Emphasis is placed on diagnostic procedures and the problem-solving techniques associated with automotive engine performance and drivability. PREREQUISITES: Take 602-127 - Electrical & Electronic Systems 2 Take 602-204 - Engine Repair I Complete course 804-135 - Quantitative Reasoning or a higher-level math course. COREQUISITES: Complete course 801-136 - English Composition 1

**602-198**

**Engine Performance 2**

**Credits: 4.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair fuel and emission control systems. Emphasis is placed on diagnostic procedures and the problem-solving techniques associated with automotive engine performance and drivability. PREREQUISITES: Course 602-197 - Engine Performance 1

**602-204**

**Engine Repair I**

**Credits: 3.00**

This automotive course focuses on developing the skills needed to service and repair internal combustion engines. Emphasis is placed on out-of-vehicle engine repair including overhaul procedures. PREREQUISITES: Take 602-130 - Auto Shop Essentials OR 602-122 Take 602-107 - Auto Service Fundamentals

**602-205**

**Engine Repair II**

**Credits: 2.00**

This automotive course focuses on developing the skills needed to diagnose, service and repair internal combustion engines. Emphasis is placed on in-vehicle diagnosis and repairs including valve timing, engine cooling and lubrication systems. PREREQUISITES: Course 602-204 - Engine Repair I

**605-107**

**Fundamentals of Electricity/Electronics**

**Credits: 3.00**

This course studies the behavior of electricity in terms of voltage, amperage, resistance, and impedance in various circuits. Lab instruction will include the application and usage of measuring and troubleshooting equipment.

### **605-108**

#### **Introduction to Electronics and Eng**

**Credits: 5.00**

The participants will utilize theoretical analysis, supported by practical hands-on experiments to explore the foundational principles of DC, AC, and Digital Electronics. These principles will be used in the analysis of both analog and digital electronic circuits. In addition, a student design project will provide a practical approach to investigate the Engineering Design process. Upon completion of this course, participants will have the background necessary to successfully teach an introductory course in DC, AC and Digital electronics, along with basic Engineering Design Principles.

### **605-113**

#### **DC/AC I**

**Credits: 3.00**

This introductory course presents the scientific foundation used throughout electronics technology. Topics include DC/AC forms of current, voltage, resistance, capacitance, inductance, and power. Troubleshooting practices will be emphasized and computer technologies will be used to enhance abstract theory. Students perform laboratory experiments and prepare technical reports.

### **605-114**

#### **DC/AC II**

**Credits: 3.00**

An extension of and enhancement to DC/AC I. More advanced topics, such as complex networks, applicable theorems, polyphase systems, and passive filters, will be discussed. Computer simulation software will be used to reinforce theoretical analyses. PREREQUISITES: Complete course 605-113 - DC/AC I COREQUISITES: Complete course 804-115 - College Technical Math 1 or a higher level math course.

### **605-120**

#### **Electronic Devices I**

**Credits: 4.00**

The basic operating principles of diodes, transistors, and linear ICs are presented as they are used in rectifier, amplifier, and oscillator circuits. Lecture theory is reinforced with laboratory assembly, measurements, troubleshooting, and technical report writing. PREREQUISITES: Course 605-113 - DC/AC I

### **605-121**

#### **Electronic Devices II**

**Credits: 4.00**

Introduction to unipolar transistors, JFETs, and MOSFETs being used in linear and nonlinear circuits. Students will use high frequency analysis with both bipolar and unipolar transistors. Operational amplifiers are used as linear amplifiers and in nonlinear circuits. Some circuits covered include voltage amplifiers, summing amplifiers, instrumentation amplifiers, active filters and oscillators. PREREQUISITES: Course 605-120 - Electronic Devices I

### **605-130**

#### **Digital Electronics**

**Credits: 4.00**

Analysis of digital electronic circuits. Realization of logic gates, using TTL and CMOS devices. Verification of theory is accomplished through laboratory experiments with small and medium scale integrated circuits.

### **605-133**

#### **Industrial Data Communications**

**Credits: 3.00**

This course introduces students to the latest technologies in industrial data communications with a focus on digital and analog signaling. Topics include topology, the principles of signaling on physical links, transmission media, data formatting, A-to-D conversion, multiplexing, modulation using digital data, error control, flow control and protocols. Special attention will be given to practical troubleshooting and problem solving of industrial data communications. PREREQUISITES: Course 605-113 - DC/AC I or 605-107 - Fundamentals of Electricity/Electronics with a minimum grade of C or TR

### **605-134**

#### **Telecommunications Installer Operation**

**Credits: 4.00**

This course is actual run time in the lab and field for hands-on telecommunication installation work. Students will work in groups and as individuals to gain experience in real and simulated telecommunications installations. Students bring together all of the theories and skills learned in the other classes and apply them to the installation process. COREQUISITES: Courses 605-166 - Telecom Safety & Installation and 605-197 - Telecom Fire Stopping

### **605-136**

#### **Programmable Controller System Design**

**Credits: 3.00**

This course introduces the student to the design and implementation of an automated process controlled by a Programmable Logic Controller. PREREQUISITES: Course 605-130 - Digital Electronics with a minimum grade of C or TR

### **605-138**

#### **Circuit Construction and Repair**

**Credits: 3.00**

Students will learn and apply the skills for the safe use of hand tools, soldering, desoldering, copper and fiber termination. These skills will be demonstrated in the construction of electronics based projects.

### **605-150**

#### **Industrial Electronics**

**Credits: 3.00**

Covers industrial electrical control using motor starters, relays, pushbuttons, as well as variable speed control of DC motors and power distribution for industry. PREREQUISITES: Take 605-114 - DC/AC II Take 605-120 - Electronic Devices I

### **605-159**

#### **Fiber Optics Theory & Testing**

**Credits: 1.00**

The Fiber Optics Theory and Testing class teaches basic concepts of fiber optics installation and service. These skills, abilities, and knowledge are beneficial for a student seeking employment in the telecommunications cabling field. This class meets some of the hands-on requirement for the ETA-1 Certified Fiber Optic Installer (CFOI) test.

### **605-166**

#### **Telecom Safety & Installation**

**Credits: 3.00**

The Safety and Installation class teaches the importance of safety, and safe practices and procedures. The course teaches basic concepts of telecommunications equipment and cabling installation and other skills needed in the telecommunication field. Students will have the opportunity to earn a Fire Stopping and a Copper Certification. This class meets some of the requirements for the ETA-I Residential Electronics Systems Installer (RESI) and Certified Data Cabling Installer Certification (DCIC). It also prepares students for BICSI Installer Level 1 Certification exam. These skills, abilities and knowledge, are beneficial for a student seeking employment in the telecommunications cabling field.

### **605-183**

#### **Electronics/Future Trends in**

**Credits: 3.00**

This course will study the future trends in the electronics field. Topics covered are communications, controls, manufacturing, and newly developed technologies. Students will complete a project.

### **605-190**

#### **Microprocessors**

**Credits: 4.00**

An introduction to microcomputer programming. Digital codes, registers, and register instruction, logic gates and truth tables are covered. The 7400 series of integrated circuit chips are studied. COREQUISITES: Take 605-114 - DC/AC II Take 605-121 - Electronic Devices II Take 801-197 - Technical Reporting

### **605-197**

#### **Telecom Fire Stopping**

**Credits: 2.00**

The Fire Stopping class teaches the importance of fire stopping and fire safety procedures. This course teaches basic concepts of fire stopping and cabling installation.

### **606-103**

#### **Material Properties**

**Credits: 2.00**

Students in this course learn and apply the mechanical strength, chemistry, and material basic characteristic properties, for materials including; metals, plastics, composites, nano-technologies, powdered metals, and non-metals. Students will have a basic understanding of how to select materials that fit the engineering product design requirements.

### **606-111**

#### **Blueprint Reading**

**Credits: 2.00**

Blueprint reading covers the interpretation of engineering drawings from a basic level to more complex topics. Topics covered include third-angle orthographic projection, sections, dimensioning, types of lines, auxiliary views, the title block and symbols. Lecture will be supplemented by individual class exercises to provide actual practice for participants.

### **606-116**

#### **Machine Design/Elements of**

**Credits: 3.00**

Procedures and consideration in design of simple machine elements such as shafts, bearings, couplings, keys, pins, springs, clutches, brakes, and pressure cylinders. Emphasis on neat, orderly procedure and a thorough consideration of design specifications. PREREQUISITES: Course 606-131 - Strength of Materials

### **606-118**

#### **Mechanisms**

**Credits: 2.00**

Kinematics of machinery, displacement, velocity and acceleration, analysis of linkages, cams and gears, geometry of involute gears, properties of standard spur, helical, bevel, and planetary gears. Practical problems develop an understanding of principles. PREREQUISITES: Take 806-154 - General Physics 1

**606-119****Motor Controls****Credits: 3.00**

This course provides a practical approach to motor control of various machines for non-electrical or electronic technicians. It discusses electrical and mechanical components and how they are connected together to control different types of motors. Many different types of control circuits are discussed.

**606-128****CAD - Solidworks****Credits: 2.00**

Students use Solidworks software to create solid models of various machine components. They also convert solid parts into conventional 2-D orthographic drawings which include sections, auxiliary views, and dimensions. Students create assembly drawings and configurations of various parts.

**606-129****CAD/Solids Advanced****Credits: 2.00**

A continuation of the basic solids class that includes assembly drawings, exploded isometric drawings, customization, sheet metal drawings, import/export functions, thin features, and the use of Microsoft Office features to increase productivity. PREREQUISITES: Course 606-128 - CAD - Solidworks

**606-131****Strength of Materials****Credits: 3.00**

Internal stresses and deformation of elastic bodies resulting from external forces. Tables of properties of engineering materials are used. Analysis of simple and combined stresses relative to the properties of the materials to meet functional requirements. PREREQUISITES: Take 606-151 - Statics

**606-137****Manufacturing Process Applications****Credits: 2.00**

Students spend part of the course in the Machine Shop learning basic lathe, mill, drill press, and grinder operations as well as layout. Part of the course is taught in the welding lab where students learn the operations of gas and arc welding. PREREQUISITES: Course 606-159 - Manufacturing Processes with minimum grade D

**606-138****Design Problems****Credits: 2.00**



In this course, students diagram ideas, gather data, calculate project and process capabilities, and analyze problems in a project-based environment. Students initiate projects using mechanical design and manufacturing technology skills. Upon completion of the course, students will be able to judge the feasibility of a mechanical design or manufacturing process. PREREQUISITES: Course 801-136 - English Composition 1 with a minimum grade D

### **606-141**

#### **Autocad Mech Design Technician**

**Credits: 3.00**

This course is an introductory course in the latest version of AutoCAD. No prior CAD or drafting experience is necessary. While it would be helpful to have some knowledge of computers, geometry, and design problems, this too is not necessary. This course is designed for students that have had no or very little exposure to CAD. Upon the successful completion of all assigned work in this course, a student should have an understanding of how to create basic geometric shapes and drawings as well as applying dimensions using AutoCAD software. Students will use advanced CAD dimensioning concepts and edit and modify various types of entities, such as dimensions, hatch patterns, and text and output to paper views and drawings. Use of grips, attributes, and Xrefs, menu customization, and profiles are covered. While drawing will be created in this class, drafting is not taught. This course deals strictly with the basic use of AutoCAD software.

### **606-142**

#### **Intro to Creo/ProEngineer**

**Credits: 2.00**

In this course, students use Pro-E software to create solid models of various machine components, convert solid parts into conventional 2-D orthographic drawings, create section and auxiliary views with applied dimensions of various components, and create assembly drawings of various parts.

### **606-149**

#### **Mechanical Engineering, Introduction to Tech**

**Credits: 2.00**

This course will instruct the student in manual drafting techniques; however, most of the material may be completed using CAD. It is designed to develop knowledge and basic mechanical drafting skills. Upon completion of this course, the student will have developed skills in the use of drafting tools, lettering, geometric construction, orthographic projection, sketching, visualization, dimensioning, and basic tolerancing. COREQUISITES: Course 606-128 - CAD - Solidworks

### **606-151**

#### **Statics**

**Credits: 3.00**

Study of forces in equilibrium; types of forces, couples, vector and scalar quantities, force systems, friction, centroids, centers of gravity, moments of inertia of areas. COREQUISITES: Course 804-114 or 804-115 - College Technical Math 1

**606-152****Engineering Graphics w/CAD 1****Credits: 2.00**

Advanced concepts of topics from Intro to MET are covered as well as several new topics. Lab assignments are done on a CAD workstation. Topics covered include drawing primary and secondary auxiliary views, sections, threads and fasteners, and creating drawings of weldments. PREREQUISITES: Courses 606-128 - CAD - Solidworks 606-149 - Mechanical Engineering, Introduction to Tech

**606-153****Engineering Graphics w/CAD 2****Credits: 2.00**

Advanced concepts from Engineering Graphics 1 are covered as well as several new topics. Lab assignments are done on a CAD workstation. Topics covered include creating working drawings of simple and complex assemblies, redesigning existing parts and assemblies, and creating welded assemblies. PREREQUISITES: Course 606-152 - Engineering Graphics w/CAD 1

**606-154****Engineering Graphics w/CAD 3****Credits: 2.00**

Advanced concepts of topics from Engineering Graphics 1 are covered as well as several new topics. Lab assignments are done on a CAD workstation. Topics covered include creating gear, sprocket, and pulley drawings and cutting data, understanding the nomenclature associated with gear, sprocket, and pulley drawings, locating information about standard parts from tables and charts, creating cam displacement diagrams and profiles, and using vendor catalogs to select parts. PREREQUISITES: Course 606-152 - Engineering Graphics w/CAD 1

**606-159****Manufacturing Processes****Credits: 2.00**

Basic methods of fabrication used in modern manufacturing, welding, electroforming, casting, metallic coating, anodizing, plating and chip removal, using numerical control, and hydraulic systems. PREREQUISITES: Course 606-103 - Material Properties or 606-136 with a minimum grade C or TR COREQUISITES: Course 801-136 - English Composition 1;

**606-160****Fluid Power and Design****Credits: 3.00**

This course is designed to give the student a foundation in hydraulics and pneumatics. The units of instruction will cover components, general operating characteristics and principles, fluid power systems, and problem solving techniques required to put these systems together.

**606-199****Internship, Mechanical Tech****Credits: 1.00**

A mechanical tech internship is an opportunity for students to get hands-on experience in the mechanical or electrical field. Students will apply to participating industries for an opportunity to work with their engineers and technicians. If accepted, they will have the opportunity to earn credit (note: some companies may only accept you if you are earning credit).

**606-501****AutoCAD for the Trades****Credits: 1.25**

This course has been added to enhance our existing apprenticeship program. It will also serve to familiarize our apprentices with some of the technological advancements that have already been implemented into the sheet metal field. AutoCAD has all but replaced the hand drafting methods that have been practiced for years. This course will teach the basic functions of the AutoCAD program and allow the students to apply these skills in practical field related applications. Work sheets, drawings and quarterly tests will be used to assess the student's progress.

**607-102****Conflict Resolution in Engineering/Construction****Credits: 2.00**

This course is designed to help students learn how to recognize, approach and defuse various confrontational situations on the construction job site and in the workplace.

**607-103****Civil Engineering And, Introduction to Architecture****Credits: 2.00**

This course is designed to introduce students to the wide variety of career opportunities within the fields of Civil Engineering Architecture, Land Survey, Fresh Water Resources and Construction Management.

**607-104****Building Material & Construction Method****Credits: 3.00**

This course is an introduction to common building materials and construction methods including soils, aggregates, pipes, cement, concrete, asphalt, steel, wood masonry and residential and commercial building materials.

**607-117****Geographical Information Systems I**

**Credits: 2.00**

This is an introductory course into GIS (Geographical Information Systems), GIS terminology, data structure, and data analysis based on spatial parameters. Students learn how to manipulate, parse, combine, and even build basic geographical databases. Applications ranging from land record management to marketing to political science are addressed.

**607-118****Geographical Information Systems II****Credits: 2.00**

This is the second course in the Geographical Information System series (GIS). Students explore the conceptual framework of geographic information systems and spatial modeling and develop GIS database abilities through group and self-selected projects. Emphasis is on independent learning and synthesis of GIS into the student's studies. PREREQUISITES: Course 607-117 - Geographical Information Systems I

**607-119****Civil Technology Internship****Credits: 1.00**

Satisfactory completion of at least 80 hours of relevant work experience in the field approved by the head instructor and documented by the employer.

**607-127****Civil Engineering and Survey Drafting****Credits: 3.00**

Using MicroStation, the student will prepare standard drawings typically used in the field of Civil Engineering...including Title Pages, Typical Sections, Plan & Profiles, Cross Sections, Sewer Profiles, Alignment Tie Sheets, etc. PREREQUISITES: Take 607-187 - 3D Cad: Digital Terrain Modeling

**607-128****Construction Estimating****Credits: 3.00**

This course is designed to develop the skills for preparation of cost estimates using materials, labor, and equipment in construction. Time and cost components are also addressed in a unit production and a project scheduling evaluation using the critical path method. COREQUISITES: Course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1 Course 801-136 - English Composition 1

**607-129****Future Trends in Civil Engineering/ Architectural Technology****Credits: 2.00**

In this course, students will explore an array of emerging technologies, processes, and approaches that provide a framework, present their findings in a formal setting, and model an application of the selected element to a traditional design-build approach. Upon completion of the course, students will be able to relate emerging technologies processes, and approaches to building design and construction practice. PREREQUISITES: Take 607-104 - Building Material & Construction Method Take 607-141 - Construction Basics OR 607-103 - Civil Engineering And, Introduction to Architecture

### **607-132**

#### **Structural Mechanics - Civil Engineering**

**Credits: 3.00**

This course introduces students to basic principles of structural mechanics (statics and strength of materials), with special emphasis placed upon application of these principles in the design of simple beams used in commercial buildings. PREREQUISITES: Course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

### **607-134**

#### **Steel - Design and Detailing**

**Credits: 2.00**

This course is designed so that students will understand the design and detail of structures using LRFD methods, including simple beams, cantilevers, and axially loaded columns. Design of connections will also be addressed. PREREQUISITES: Course 607-132 - Structural Mechanics - Civil Engineering

### **607-135**

#### **Reinforced Concrete - Design & Detailing**

**Credits: 2.00**

This course is designed so that students will understand the design and detail of structures using reinforced concrete, including simple beams, cantilevers, retaining walls, and axially loaded columns. PREREQUISITES: Course 607-132 - Structural Mechanics - Civil Engineering

### **607-136**

#### **Construction Project Management**

**Credits: 2.00**

This course is designed to introduce the concepts of overall construction project management including scheduling, resource allocation, cost and technical constraints.

### **607-137**

#### **Global Positioning Systems**

**Credits: 2.00**

This course is designed to introduce students to the concepts of GPS in surveying and the equipment used in acquiring/processing survey grade information. PREREQUISITES: Course 607-169 - Land Surveying Basics

## **607-139**

### **Material Testing & Inspection**

**Credits: 4.00**

Students will conduct and evaluate standardized field and laboratory testing on civil engineering materials as required for inspection certifications. PREREQUISITES: Course 607-104 - Building Material & Construction Method;

## **607-141**

### **Construction Basics**

**Credits: 2.00**

In this course, students develop general skills helpful in construction. Students are exposed to the construction industry, tools and materials typically used in construction, construction health and safety, blueprint reading, and diversity in the construction industry. Upon completion of the course, students will have knowledge and skills to perform basic duties on a job site.

## **607-148**

### **Wood Design and Detailing**

**Credits: 1.00**

This course is designed to teach the students to design and detail basic wood structural components and connections. PREREQUISITES: Course 607-132 - Structural Mechanics - Civil Engineering

## **607-150**

### **Survey Construction, Rte and Hwy**

**Credits: 4.00**

Using Wisconsin Department of Transportation's Facility Design Manuals, students will learn the principles and designs of roadways...including horizontal/vertical curves, superelevations, pavement design, construction considerations, etc. Students will field survey an existing site and develop a preliminary plan set for a proposed roadway. The students will then stake out this proposed roadway. PREREQUISITES: Courses 607-173 - Land Surveying Fundamentals and 801-136 - English Composition 1

## **607-152**

### **Elements of Inspections, Contracts, and Specifications**

**Credits: 3.00**

Using Wisconsin Department of Transportation's Construction Specification Manual and various other project specific specifications, students will learn the principles and basic techniques of highway and municipal inspection.

## **607-154**

### **Sewer and Water Systems**

**Credits: 2.00**

Using the latest hydraulic software along with the Standard Specifications for Sewer and Water in Wisconsin, students will learn the basic applications of hydrology and hydraulics for various applications including run off calculations and design of culverts, storm sewers, detention basins, etc. Students will also be acquainted with the principles and software applications in designing roadway drainage, water and sewer lines.

PREREQUISITES: Take 607-104 - Building Material & Construction Method Take 804-135 - Quantitative Reasoning OR 804-115 - College Technical Math 1 Take 607-191 - Hydrology and Erosion Control

**607-161****Legal Aspects of Land Surveying****Credits: 2.00**

This course covers the legal concepts and doctrines related to land, land ownership, duties and responsibilities of surveyors, and Wisconsin statutes and local codes. PREREQUISITES: Course 607-169 - Land Surveying Basics with a minimum grade of C

**607-166****Capstone: CET Highway Technology****Credits: 1.00**

The Civil Engineering Technician Highway capstone course is designed to guide students in resolving related problems by applying skills and techniques acquired throughout the program. The capstone course will provide an overall program assessment opportunity aimed at showcasing a student's technical skills developed from the Civil Engineering Technology Highway program courses. PREREQUISITES: Take 607-132 - Structural Mechanics - Civil Engineering COREQUISITES: 607-154 - Sewer and Water Systems Take 607-179 - Route/Highway Design and Surveying

**607-167****Capstone: CET Freshwater Resources****Credits: 1.00**

The Civil Engineering Technician - Fresh Water Resources capstone course is designed to guide students in resolving related problems by applying skills and techniques acquired throughout the program. The capstone course will provide an overall program assessment opportunity aimed at showcasing a student's technical skills developed from the Civil Engineering Technology Fresh Water Resources program courses. COREQUISITES: Take 607-195 - Wastewater Operations OR 607-185 - Waste Water Treatment Take 607-198 - Stormwater Management OR 607-186 - Erosion Control in Construction

**607-169****Land Surveying Basics****Credits: 2.00**

This course is an introduction to the basics of land surveying ranging from pacing/taping and level loops through the use of a total station to accomplish basic traverses. This course also includes an introduction to drawing deed descriptions, basic surveying terms, and units of measure.

## **607-170**

### **AutoCAD for Construction Sciences**

**Credits: 2.00**

This course teaches the participant the basics of Computer Aided Drafting (CAD) using AutoCAD and other design software within the various fields of construction sciences and interior design. Students develop their CAD skills while working on various real world construction type projects.

## **607-173**

### **Land Surveying Fundamentals**

**Credits: 3.00**

This course includes instruction in the use of instruments used in the field of construction surveying, such as the transit, level, and chains, and their application in the solving of typical field problems. The student does the field work and office computations required in the solution of these problems. PREREQUISITES: Courses 607-169 - Land Surveying Basics and 607-187 - 3D Cad: Digital Terrain Modeling and course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

## **607-175**

### **Material Testing**

**Credits: 3.00**

In this course, learners analyze various construction materials based on Wisconsin Department of Transportation's Highway Technician Certification Program (HTCP) requirements. Upon completion of the course, learners will be able to demonstrate how to properly test fresh Portland Cement Concrete as required for the HTCP PCC1 certification. PREREQUISITES: Take 607-104 - Building Material & Construction Method Take 607-141 - Construction Basics

## **607-176**

### **Drone and Lidar Surveying**

**Credits: 1.00**

In this course, learners develop skills to fly drones and utilize lidar surveying equipment. Learners use these skills to determine existing ground data. Upon completion of this course, learners will be able to create existing topographical point cloud data obtained from both drones and lidar systems.

## **607-177**

### **Concrete Repair**

**Credits: 2.00**

In this course, learners apply industry codes for the assessment of damaged and deteriorated Portland cement concrete members in order to inspect, analyze, and classify the distress in concrete structures. Industry practices for repairing damaged members containing these distresses will be identified. Upon completion of the course, learners will be able to inspect existing concrete members in order to choose potential industry options for repair. PREREQUISITES: Take 607-175 - Material Testing OR 607-139 - Material Testing & Inspection



## **607-178**

### **Boundary Location and Research**

**Credits: 2.00**

In this course, learners assess boundary locations via research of public and private records. Learners interpret principles of evidence and the interpretation of written documents used in boundary determination, apply surveying methods for measuring distance and angular values, and demonstrate surveying practices including note keeping, computation, and writing descriptions. Upon completion of the course, learners examine boundary locations based on the study of the Wisconsin Statutes and local ordinances relating to the preparation of subdivision maps and plats. PREREQUISITES: Take 607-169 - Land Surveying Basics

## **607-179**

### **Route/Highway Design and Surveying**

**Credits: 3.00**

In this course, learners identify the key principles of roadway design and surveying construction using Wisconsin's Department of Transportation's Facility Design Manual. Students model and design aspects of roadways including horizontal alignments, vertical profiles, super elevations, pavement designs, construction considerations, etc. Learners survey an existing location, develop a proposed roadway profile, and layout construction staking for the proposed project. Upon completion of this course, learners will be able to summarize the key processes required to develop a proposed roadway. PREREQUISITES: Take 607-173 - Land Surveying Fundamentals Take 607-127 - Civil Engineering and Survey Drafting

## **607-181**

### **Watershed Hydrology and Conservation**

**Credits: 2.00**

Distribution and properties of waters on the earth. concept of the hydrologic cycle, and basic principles of meteorology, precipitation, streamflow, and groundwater flow. Introduction to erosion and urban stormwater pollution controls and conservation PREREQUISITES: Course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

## **607-182**

### **Water Sampling and Testing**

**Credits: 2.00**

Review and application of technology and techniques for gathering data from water resources and water treatment processes. PREREQUISITES: Take 806-127 - Chemistry 1 Take 607-185 - Waste Water Treatment OR 607-195 - Wastewater Operations

## **607-183**

### **Fresh Water Treatment**

**Credits: 3.00**

Review of water characteristics, drinking water, receiving water and effluent standards. Basic design methodology and operational features of common physical, chemical and biological processes for the treatment of water. PREREQUISITES: Courses 607-182 - Water Sampling and Testing and 806-127 - Chemistry 1

### **607-184**

#### **Environmental Impact Assessments**

**Credits: 2.00**

Review of process and content of environmental impact assessments including evaluation of environmental impacts and alternatives PREREQUISITES: Course 801-136 - English Composition 1 Take 607-197 - Water Regulations OR 607-183 - Fresh Water Treatment

### **607-185**

#### **Waste Water Treatment**

**Credits: 3.00**

Review of wastewater characteristics, receiving water and effluent standards. Basic design methodology and operational features of common physical, chemical and biological processes for the treatment of wastewater. Introduction to the processing and disposal of sludges and other treatment plant residuals. PREREQUISITES: Course 607-183 - Fresh Water Treatment

### **607-186**

#### **Erosion Control in Construction**

**Credits: 2.00**

This course is designed to introduce students to environmental considerations, environmental rules and regulations pertaining to construction, impacts of construction on the environment, and methods for effective erosion control. Students will review and apply the techniques for developing a stormwater plan including design, installation, inspection and maintenance of erosion and sediment control practices for construction sites. PREREQUISITES: Course 607-104 - Building Material & Construction Method and course 804-135 - Quantitative Reasoning or 804-115 - College Technical Math 1

### **607-187**

#### **3D Cad: Digital Terrain Modeling**

**Credits: 2.00**

This course is an introduction to the concepts and creation of Digital Terrain Models (DTM) including the extrapolation of contours, profiles and cross sections from the DTM using Autodesk Civil3D software.

### **607-188**

#### **Capstone: Geospatial Surveying Tech**

**Credits: 1.00**

The Geospatial Surveying Technician capstone course is designed to guide students in resolving related problems by applying skills and techniques acquired throughout the program. The capstone course will provide

and overall program assessment opportunity aimed at showcasing a student's technical skills developed from the Geospatial Surveying Tech program courses.

### **607-189**

#### **Geospatial Data Processing**

**Credits: 2.00**

This course is designed to develop advanced data processing skills required by full time surveyors including data sets from remote sensing technologies. PREREQUISITES: Course 607-169 - Land Surveying Basics

### **607-190**

#### **Legal Research and Boundary**

**Credits: 4.00**

This course is an introduction to the legal concepts and doctrines related to land, land ownership, duties and responsibilities of surveyors, Wisconsin statutes and local codes. This includes the principles and practices for boundary location and research. The public land system will be covered in detail along with the principles for performing surveys. PREREQUISITES: Course 607-169 - Land Surveying Basics

### **607-191**

#### **Hydrology and Erosion Control**

**Credits: 1.00**

In this course, learners demonstrate the distribution and properties of waters on the earth, concepts of the hydrologic cycle, and basic principles of meteorology, precipitation, streamflow, and groundwater flow. Learners classify various erosion control practices to protect the environment during construction. Upon completion of the course, learners will be able to develop storm water pollution protection solutions for a given construction site.

### **607-192**

#### **Water Treatment Pumps**

**Credits: 2.00**

In this course, learners relate the mechanical and electrical components of a pump to the different pump types, operating specifications, and the pump's applications. Upon completion of the course, learners will be able to explain how to inspect and troubleshoot the operational performance of pumps used within the water treatment profession.

### **607-193**

#### **Introduction to Water Chemistry**

**Credits: 2.00**

In this course, learners relate basic chemical concepts and principles such as elements, compounds, states of matter, and reactions that are applicable to evaluating and regulating water quality. Upon completion of the

course, learners will summarize main water topics including chemical equilibrium and kinetics, acid-base equilibria and buffering, turbidity, solid precipitation and dissolution, oxidation and reduction reactions.

### **607-194**

#### **Freshwater Operations**

**Credits: 2.00**

In this course, learners compare environmental and treatment options necessary to operate a potable groundwater well system. Learners identify the operational components of a groundwater treatment plant and make operational assessments based on established industry criteria. Learners extend that knowledge to a municipal water treatment plant operation. Learners identify how to safely operate and maintain coagulation, flocculation, sedimentation, filtration, disinfection, iron and manganese control, fluoridation, softening, trihalomethanes, demineralization, chlorination, dichlorination, and control corrosion processes in order to meet lead requirements. Upon completion of the course, learners will be able to summarize the role of the operator, source water, water treatment processes, reservoir management, and operational procedures necessary to produce a safe and aesthetically appropriate water supply for human consumption.

PREREQUISITES: Take 607-193 - Introduction to Water Chemistry

### **607-195**

#### **Wastewater Operations**

**Credits: 2.00**

In this course, learners compare environmental and treatment options necessary to treat wastewater beyond treating freshwater. Learners illustrate various wastewater treatments stages including preliminary, primary, and secondary treatment. Learners identify types of microorganisms found in the process, aerobic and anaerobic sludge digestion, and sludge disposal procedures. Learners summarize environmental regulations, preventive maintenance practices, and basic safety precautions related to wastewater treatment. Upon completion of the course, learners will be able to model operational procedures necessary to treat common wastewater. PREREQUISITES: Take 607-193 - Introduction to Water Chemistry COREQUISITES: Take 607-194 - Freshwater Operations

### **607-196**

#### **Water Distribution Systems**

**Credits: 2.00**

In this course, learners compare practical aspects of operating and maintaining water distribution systems while emphasizing safe practices and procedures. Learners summarize water distribution systems, operator duties, procedures for operating and maintaining clear wells and storage tanks. Learners classify components and characteristics of distribution system facilities. Learners summarize the operation and maintenance of distribution systems. Learners examine how to maintain water quality in the system, disinfect new and repaired facilities and explore techniques for recognizing hazards that emphasize safe operational practices and procedures. Upon completion of the course, learners will be able to plan an effective water distribution system. PREREQUISITES: Take 607-193 - Introduction to Water Chemistry

### **607-197**

## **Water Regulations**

**Credits: 1.00**

In this course, learners compare regulations related to water including reviewing scholarly articles, case law, and water management statutes and policies. Upon completion of this course, learners will be able to summarize the federal and state regulations related to water treatment.

**607-198**

## **Stormwater Management**

**Credits: 2.00**

In this course, learners examine stormwater management history and regulations, urban hydrology and hydraulics, stormwater quality and receiving-water impacts, design of drainage systems with best management practices, and computer modeling techniques. Learners inspect existing stormwater management systems for compliance with existing regulations and management plans. Upon completion of this course, learners will be able to develop a stormwater management plan for a given site redevelopment based on local and state regulations PREREQUISITES: Take 607-191 - Hydrology and Erosion Control

**607-199**

## **Drone Survey Mapping**

**Credits: 1.00**

In this course, learners develop the skills required to create automated drone flights to survey existing ground conditions. Learners process these flights to obtain digital terrain data. Upon completion of the course, learners will be able to survey and create a model of an existing ground location using a drone.

PREREQUISITES: Take 607-176 - Drone and Lidar Surveying

**612-102**

## **Pneumatics/Hydraulics - Introduction**

**Credits: 3.00**

The fundamental principles and physical laws governing fluid power and pneumatics are studied. The operation of the various control valves and actuators will be explored through a combination of theory and practical lab exercises.

**612-115**

## **Hydraulics/Advanced**

**Credits: 3.00**

Analysis of the various selection factors for hydraulic components. Design of various components to determine how they meet specific duty requirements. Physical laws will be applied to determine how hydraulics can best be applied for maximum efficiency. Make component selections based on a given set of criteria.

**614-102**

## **Capstone: Construction Proj Management**

**Credits: 2.00**

The Construction Project Management Capstone course is designed to apply the practice of overall construction project management including scheduling, resource allocation, cost and technical constraints.

PREREQUISITES: Course 607-136 - Construction Project Management

### **614-103**

#### **Drone Building Inspections**

**Credits: 1.00**

In this course, learners develop the skills required to create automated and manual drone flights to perform external inspections of an existing building. Upon completion of the course, learners will be able to perform drone flights to inspect existing external buildings. PREREQUISITES: Take 607-176 - Drone and Lidar Surveying

### **614-107**

#### **Residential and Commercial Inspection**

**Credits: 3.00**

This course is designed to teach students the skills needed to become a residential and commercial inspector including a focus on Energy Audits. PREREQUISITES: Courses 607-104 - Building Material & Construction Method and 614-108 - Residential Code COREQUISITES: Course 614-114 - Commercial Code

### **614-108**

#### **Residential Code**

**Credits: 1.00**

This course is a study of the Wisconsin Uniform Dwelling Code and its application to residential design.

### **614-110**

#### **Architectural Drafting/Residential**

**Credits: 3.00**

This course is the capstone application class regarding residential design, including a full design of a residential building using BIM. Students develop set of working drawings and specifications for a residential building using Autodesk Revit. PREREQUISITES: Course 614-150 - 3D CAD:Building information Model COREQUISITES: Course 614-108 - Residential Code

### **614-114**

#### **Commercial Code**

**Credits: 2.00**

This course is a study of the Wisconsin Commercial Building Code (including the International Building Code) and its application to commercial design.

## **614-115**

### **Architectural Drafting/Commercial**

**Credits: 3.00**

This course is the capstone application class regarding commercial design, including a full design of a commercial building using BIM. Students develop a set of drawings and specifications for a commercial building using Autodesk Revit. PREREQUISITES: Course 614-150 - 3D CAD:Building information Model  
COREQUISITES: Course 614-114 - Commercial Code

## **614-123**

### **Capstone: Architectural Structural Tech**

**Credits: 1.00**

The Architectural-Structural Engineering Technician capstone course is designed to guide students in resolving related problems by applying skills and techniques acquired throughout the program. The course will provide an overall program assessment opportunity aimed at showcasing a student's technical skills developed from the Architectural-Structural Engineering Tech program courses. PREREQUISITES: Course 607-134 - Steel - Design and Detailing or 614-100 COREQUISITES: Complete course 614-115 - Architectural Drafting/Commercial and course 607-135 - Reinforced Concrete - Design & Detailing or 614-101

## **614-138**

### **3D Modeling and Virtualization**

**Credits: 1.00**

Using 3D modeling software and hardware, students will create and virtualize their construction project designs for presentations and portfolio development. PREREQUISITES: Courses 614-150 - 3D CAD:Building information Model and 607-187 - 3D Cad: Digital Terrain Modeling

## **614-140**

### **Mechanical Systems for Buildings**

**Credits: 3.00**

This course is an introduction to the broad field of mechanical systems and their implications on architectural form and design. It will provide students with the information and tools required to assess the need for an application of various building systems including mechanical, electrical, plumbing, vertical transportation, fire protection, etc. PREREQUISITES: Course 607-104 - Building Material & Construction Method

## **614-150**

### **3D CAD:Building information Model**

**Credits: 2.00**

This course is an introduction to the concepts and creation of Building Information Modeling (BIM) projects including the extrapolation of schedules, plans, sections and elevations from the BIM using Autodesk Revit software.

## **620-101**

### **Variable Speed Drives**

**Credits: 3.00**

This course covers the theory and operation of DC and AC variable speed drives that run electrical motors. Content will include servos, stepping motors, and control of general purpose motors. Feedback sensing devices in position and velocity control will be covered. Laboratory experiments will be used to help the student in understanding the complex nature of those systems. PREREQUISITES: Course 620-150 - Electromechanical Dr Systems

## **620-108**

### **Fundamental of Industrial Controls**

**Credits: 3.00**

Industrial electrical hardware such as motors and controls are studied. Industrial electrical control circuits are developed and wired. Troubleshooting techniques are used to correct problems in wiring or controls. Motor starters, industrial control relays, timers, proximity switches, and electric eyes are studied, including proper selection and wiring techniques. Ladder logic and wiring diagrams are examined and drawn. This course is for an individual that already has a basic understanding of electricity.

## **620-109**

### **Drone Repair Basics**

**Credits: 1.00**

In this course, learners investigate the electrical and mechanical components of a drone. Upon completion of the course, learners will be able to investigate and make minor repairs to a drone. COREQUISITES: Take 607-176 - Drone and Lidar Surveying

## **620-110**

### **Robotics Mechanics I**

**Credits: 3.00**

In this course, the basic control elements of electromechanical machines will be studied. The application and simple control of power using pneumatics and electrical methods will be covered. Electrical control includes the use of simple push buttons, solid state power transistors, and thyristors to control electrical power. The use of air as a power transfer medium will be implemented along with the use of electro- pneumatic devices to control a pick and place robot. The operational amplifier will be studied as a control device in proportional, integral, and differential control circuits. PREREQUISITES: Course 605-113 - DC/AC I

## **620-113**

### **Troubleshooting Electrical/Electronic Systems**

**Credits: 3.00**

This course will teach the student proper troubleshooting techniques in the industrial setting. The student will be required to use electrical schematics and wiring diagrams along with proper troubleshooting equipment,



such as meters and oscilloscopes, to locate problems with electrical/electronic systems. Areas of troubleshooting will include motor starters, relays, AC and DC motors, motor drives, lighting circuits, solid state equipment, and programmable controllers. PREREQUISITES: Course 620-102 with a minimum grade of C or TR  
COREQUISITES: Course 620-145 - Programmable Logic Controllers/Advanced

## **620-120**

### **Feedback and Control Systems/ Electromechanical**

**Credits: 2.00**

The course in Feedback and Control Systems investigates devices and circuits used in the control of electromechanical systems. The student studies control diagrams and simple control systems and their applications. The student will become familiar with sensors and devices used in feedback circuits as well as accuracy and application of those sensors in control circuits. The course will help the student understand closed loop control systems. This knowledge will help the student to troubleshoot and repair these systems when encountered on the job. PREREQUISITES: Course 605-113 - DC/AC I

## **620-140**

### **Programmable Controllers**

**Credits: 2.00**

The operation of the Programmable Logic Controller (PLC) is studied for the purpose of various applications. The hardware, including various I/O modules, is studied for applications and capabilities. Electrical ladder logic provides the documentation and programming means. The student will be able to write programs, load them into the PLC, troubleshoot any errors, and document the function and input/output of the control. PREREQUISITES: Course 620-103

## **620-145**

### **Programmable Logic Controllers/Advanced**

**Credits: 3.00**

The advanced course in programmable logic controllers continues with the study of the programmable logic controller. The student studies the advanced instruction set of commands. The sequencer, file-to-file moves, data arrays, remote I/O, displays, and messages are part of the advanced instruction set. The student applies the old and new commands to an application in the lab. The student becomes familiar with diagnostics and troubleshooting through the lab applications. The student will learn to interface the PLC to other controls, networks, and devices. PREREQUISITES: Course 620-140 - Programmable Controllers

## **620-150**

### **Electromechanical Dr Systems**

**Credits: 3.00**

Electromechanical Drive Systems introduces the student to motor drive systems. This includes three phase, single phase, DC, stepper, and servo motors. The student will acquire a thorough understanding of the electrical principles involved with motor analysis. The student will apply this knowledge to hands-on work

with motors and controls in the lab. The lab introduces the student to motor set-up, troubleshooting, and parameter measurements. PREREQUISITES: Course 605-113 - DC/AC I

### **620-302**

#### **Electrical Principles and Ind Controls**

**Credits: 3.00**

This class will cover motors used in industrial applications including both single and three-phase motors. Industrial electrical will also be covered such as motor control circuits, timing circuits, counter circuits using ladder logic and electrical drawings. This course will cover electrical safety including lockout tagout, Ohm's law, use of a Multi-meter and oscilloscope. Along with reading, writing, building and troubleshooting ladder diagrams with relays, timers and counters. The concepts of relays, timers and counters will be covered, built and troubleshot.

### **620-303**

#### **Motors and Ind Electrical Systems**

**Credits: 3.00**

This course will cover motors and transformers utilized in industrial applications. Single and 3 phase AC motors, DC Motors, stepper and servo motors will all be wired and troubleshot using ladder diagrams. Variable frequency drives (VFD's) will be programmed and wired to control 3 phase AC motors. All topics will be covered along with failure modes, troubleshooting and replacement of the devices. PREREQUISITES: Course 620-302 - Electrical Principles and Ind Controls or 620-310 - Industrial Controls for Maintenance with minimum grade C

### **620-304**

#### **PLC's and HMI's for Maintenance**

**Credits: 3.00**

In this course the student will learn the basics of how PLC's and HMI's work along with how to replace and download a program to get the machine up and running again. Minor programming changes will be covered. Learning how to communicate to the PLC's and HMI's from a computer will also be covered. PREREQUISITES: Complete course 620-302 - Electrical Principles and Ind Controls with minimum grade C

### **620-305**

#### **Process and System Controls for Maint**

**Credits: 3.00**

Students will study process controls for flow, pressure, temperature and level typically found in industrial applications. Hands-on labs will reinforce the concepts studied. Automation systems will be explored with emphasis on the integration of the various componenets into a working system. Safety of these systems will be covered through labs and class discussions. PREREQUISITES: Course 620-302 - Electrical Principles and Ind Controls or 620-310 - Industrial Controls for Maintenance and 804-370 - Mathematics I/Applied with minimum grade C or TR

### **620-310**

## **Industrial Controls for Maintenance**

**Credits: 2.00**

In this course, learners build foundation skills needed in industrial electrical systems such as relay control circuits, timing circuits, counter circuits using ladder logic and electrical drawings. Learners utilize lockout tagout, Ohm's law, multi-meters and oscilloscopes in analyzing and wiring electrical systems. Learners build and troubleshoot relays, timers and counters. Upon completion of this course learners will analyze, develop, build and troubleshoot ladder diagrams with relays, timers and counters.

### **620-311**

#### **PLC's and HMI's I**

**Credits: 2.00**

In this course, learners examine the basic function of Programmable Logic Controllers (PLC) and Human-Machine Interfaces (HMI). They replace and download a program to return a machine to service. Learners analyze programming changes and use a computer to develop communication between PLCs and HMIs. Upon completion of the course, learners will be able to design, edit, test, and document PLC programs.

PREREQUISITES: Complete 620-302 - Electrical Principles and Ind Controls or 620-310 - Industrial Controls for Maintenance prior

### **620-508**

#### **Power Transmission Systems**

**Credits: 1.00**

Course learning outcomes include examining mechanical power transmission systems and components. Belts, chain drives, gears & gear drives, couplings, and clutches & brakes will be examined. Apprentices will develop skills inspecting, installing, and maintaining power transmission systems and troubleshooting failures. Apprentices will also learn about safety, documenting work performed, communicating the status of work, and working collaboratively.

### **620-509**

#### **Welding Basics**

**Credits: 1.00**

Course compares common welding processes and develops apprentice skills related to welding, cutting, heating and using oxygas. Welding with arc and MIG will help build skills and develop competency working with metal. Additional course learning outcomes may include common cutting and joining techniques associated with applicable trade work processes.

### **620-510**

#### **Math Review for Mechatronics**

**Credits: 1.00**

Course competencies include building apprentice skills working with fractions, decimals, measurement and ratios commonly used by the trade. Measurement, tolerances and interpreting trade related information will

help apply math concepts to industrial and manufacturing work processes. Basic algebra, geometry and trigonometry will be applied to mechatronics job duties and tasks. Converting between US and metric units is also included. Course provides a foundation for mechanical and electrical problem solving involving math.

### **620-511**

#### **Mechatronic Principles**

**Credits: 2.00**

Course learning outcomes will examine both introductory mechanical & electrical concepts as a foundation for future coursework and on-the-job learning. Troubleshooting principles associated with mechatronics will also be introduced. Apprentices will explore safety, measurement, mechanical principles, electrical principles, mechanisms, metallurgy, and troubleshooting.

### **620-512**

#### **Motors & Motor Controls**

**Credits: 2.00**

This course examines the fundamentals of electric motors and motor control. Apprentices will learn to recognize and draw the basic symbols, the language of motor control, and how to apply these symbols, into current industry adopted formats. Apprentices will also learn to draw and read ladder and wiring diagrams, and be introduced to the logic used in motor control. Learners will apply this logic to correctly interpret, install, service, and wire control circuits. Wiring of panels, machines, and systems will also be examined.

### **620-513**

#### **Machining Concepts**

**Credits: 2.00**

Course introduces cutting, drilling, lathes, and milling operations to apprentices in mechatronics. Course topics also include work holding devices, measuring tools and measurement, safety, machine guards, tooling, print reading, and speeds & feeds. Math skills will be applied to machining related work practices.

### **620-514**

#### **DC Electricity for Mechatronic**

**Credits: 1.00**

This course introduces the fundamental concepts of and computations related to DC electricity. Emphasis is placed on circuit analysis and the problem-solving skills necessary for the maintenance of mechatronic and advanced manufacturing systems. Competencies related to metering and safe use of measuring devices are included.

### **620-515**

#### **AC Electricity for Mechatronics**

**Credits: 1.00**

This course is designed to introduce the industrial electrical apprentice to the basic concepts of alternating current. Emphasis is placed on circuit analysis and the problem solving skills necessary for the maintenance of mechatronic and advanced manufacturing systems.

### **620-516**

#### **National Electrical Code**

**Credits: 1.00**

Apprentices will examine the National Electric Code and apply information to work practices involving mechatronic systems.

### **620-517**

#### **Fluid Power Systems**

**Credits: 2.00**

Course learning outcomes include inspecting, testing, servicing, and troubleshooting hydraulic, pneumatic, compressed air, and vacuum systems. Apprentices will review safety procedures for various common maintenance tasks.

### **620-518**

#### **Introduction to Robotic System**

**Credits: 2.00**

Course introduces the apprentice to the robot teach pendant and methods of robot jogging. Learners will be taught to replace servo motors, remaster the robot, and back up robot software and programs. Maintenance, servicing and safety will be emphasized. Cable management systems will be examined.

### **620-519**

#### **Introduction to Robotic Integration**

**Credits: 3.00**

Mechatronic apprentices will explore offsets, vision systems and system integration using robotic simulation and capstone project. The project will tie everything learned during their apprenticeship together - safety, machine integration, vision systems, CNC, machine applications for robotics, troubleshooting, and work documentation.

### **620-520**

#### **Servos and Drives**

**Credits: 1.00**

Course introduces concepts, terminology, and safety associated with drives and servos used in industry and manufacturing. Course is designed to give the apprentice the knowledge required by industry to program, service and maintain variable frequency drives and related equipment. Course learning outcomes include setting up and programming drives in a lab, shop or training center setting.

**620-521****Intro to Programmable Logic Controllers****Credits: 2.00**

This course is designed to teach the fundamentals of programmable logic controller and its programming software. The course will introduce terminology, concepts, schematic reading and basic programming. Technologies and PLC use in manufacturing and mechatronic systems will be emphasized.

**620-522****HMI Technologies & PLC Applications.****Credits: 2.00**

Human machine interface devices, software and technologies will be examined for mechatronic systems. Apprentices will work in a lab/shop/training center setting to create touchscreens, setup networks, and configure systems.

**623-146****Introduction to Lean/Six Sigma****Credits: 2.00**

This introductory course will make students aware of all aspects of the manufacturing environment. The class will include overviews in the key aspects of Lean and Six Sigma. Various types of manufacturing and assembly processes will also be covered.

**623-147****Manufacturing Shop Safety****Credits: 1.00**

This class will cover general shop safety for a machining environment. The course will raise the awareness of workers to the hazards around them and explain work safety and how best to protect themselves. Other safety topics will be covered, including MSDS sheets, personal protective equipment, and lockout tag out.

**623-185****Precision Measuring****Credits: 1.00**

This course is an introduction to precision measurement tools and their uses. Included are the micrometer, vernier calipers, gage blocks, and fixed gages.

**625-125****Workplace Safety A - MSSC****Credits: 1.00**

Introduces you to safety and team building skills with an emphasis on the workers awareness for maintaining a safe, productive environment. Studies safety concepts, hazard controls, developing safety and health programs, and federal and state mandated regulations. The class will also concentrate on the specific content covered in the MSSC Safety module to prepare students for taking the Manufacturing Skill Standards Council (MSSC) Safety Online assessment.

### **625-126**

#### **STEM Guitar Building**

**Credits: 2.00**

Learn about design and manufacturing principles and techniques through the process of designing and building an electric guitar. Topics include body and headstock design, basic woodworking, finishing, fretting, electronics assembly, hardware assembly and guitar setup. Discover the processes that go into creating a consumer product and walk away from the class with a beautiful solid body electric guitar that you designed and built yourself.

### **625-130**

#### **Intro to STEM Guitar Building**

**Credits: 1.00**

Learn about disassembly and assembly techniques using an electric guitar. Topics include part identification, hardware disassembly and assembly, and guitar setup. Learn the process of intonation as you perform the final alignment to restore the guitar to playable condition.

### **628-108**

#### **Auto Manufacturing Systems Technology Field Experience**

**Credits: 2.00**

Provides the student with an opportunity to apply the technologies learned in earlier class work while experiencing actual work assignments. PREREQUISITES: Course 620-110 - Robotics Mechanics I

### **628-109**

#### **Mechanical Skills for Technicians**

**Credits: 3.00**

This course covers the basic mechanical skills needed by a technician. Skills covered include the use and care of hand tools and small power tools, drilling, tapping, removal of broken bolts, studs, and helicoil insertion. Basic measuring tools and techniques are also covered. Other topics include type and use of fasteners, lubricants and adhesives used in repair, and assembly of automated machines.

### **628-110**

#### **CNC/CAM Programming**

**Credits: 3.00**

This course is a study of computer assisted programming for computer numerical control (CNC) machine tools. The student will use a microcomputer CAD/CAM system for program creation, editing, and verification. It is recommended that students have basic computer skills before enrolling in this course.

### **628-111**

#### **Computer Assisted Programming/Robotics and FMS**

**Credits: 3.00**

This course is a study of computer assisted programming for robotics and Flexible Manufacturing Systems (FMS). Students will use microcomputers to program robots and a CAD/CAM system for program creation, editing, verification, and interfacing. The student will interface the CNC program with the program.

### **628-112**

#### **Computer Aided Manufacturing, Advanced**

**Credits: 3.00**

This course is an introduction to computer integrated manufacturing (CIM). The students will use microcomputers to write, edit, and verify programs for conversational controls and a CIM system.  
PREREQUISITES: Course 628-111 - Computer Assisted Programming/Robotics and FMS with a minimum grade of C or TR  
COREQUISITES: Course 620-145 - Programmable Logic Controllers/Advanced

### **628-115**

#### **Industrial Robotics and Programming**

**Credits: 3.00**

A study in industrial robotics and programming. Students will learn to program a FANUC industrial robot and earn FANUC CERT Certification. Students will develop frames, learn file manipulation and program the robot to manipulate products, perform different tasks based on I/O conditions, and utilize variables. We will also study robotic power supplies, end of arm tooling and control systems.

### **628-122**

#### **Engineering Design and Development**

**Credits: 4.00**

Engineering Design and Development is an engineering research course in which students work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply engineering principles and are guided by a community mentor. They must present progress reports, submit a final written report, and defend their solution to a panel of outside reviewers at the end of the school year.

### **628-123**

#### **Computer Integrated Mfg Part 1 PLTW**

**Credits: 2.00**



The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course is built around several key concepts: Principles of Manufacturing Manufacturing Processes Elements of Automation Integration of Manufacturing Elements

#### **628-124**

##### **Computer Integrated Mfg Part 2 PLTW**

**Credits: 4.00**

The purpose of the Computer Integrated Manufacturing course is to expose students to the fundamentals of computerized manufacturing technology. The course is built around several key concepts: Principles of Manufacturing Manufacturing Processes Elements of Automation Integration of Manufacturing Elements  
PREREQUISITES: Course 628-123 - Computer Integrated Mfg Part 1 PLTW

#### **628-300**

##### **Machining for Maintenance**

**Credits: 2.00**

A study and practice of manual machining to prepare students for careers in maintenance fields. Covers shop safety practices in a machine shop, the use of manual milling machines, lathes, saws and drill presses to manufacture parts to print. This class also covers the use of basic metrology instruments to determine if the parts are to print. Calculation and application of correct cutting parameters of selected materials and tools is practiced.

#### **628-310**

##### **Mechanical Skills I**

**Credits: 2.00**

In this course, learners explore basic mechanical skills and repair techniques common to most industrial maintenance fields. Learners examine common types, components, operating principles, and maintenance procedures for belt drive systems, chain drive systems, clutches, shafts, and gears. Learners investigate the use and care of hand tools and small power tools, drilling, tapping, removal of broken bolts, studs, and helicoil insertion. Learners examine the type and use of fasteners and lubricants used in automated machines. Upon completion of this course, learners will be able to explain the mechanical skills and repair techniques used in industrial maintenance.

#### **662-101**

##### **Safety in Healthcare**

**Credits: 1.00**

Safety in the Health Care environment is explored. Safety issues include; electrical, chemical, radiological, biological and fire. National codes and standards set forth by JCAHO, NFPA 99, FDA, and OSHA are examined.

#### **662-102**

##### **Medical Devices; Function and Use 1**

**Credits: 3.00**

Medical instrumentation utilized in both monitoring and diagnostic capacities for the respiratory and circulatory systems are examined. The medical terminology associated with these two systems is also covered. The instrumentation for monitoring individual organs is also explored.

### **662-103**

#### **Diagnostic Medical Instrumentation**

**Credits: 3.00**

Medical instrumentation utilized in both monitoring and diagnostic capacities for the Gastrointestinal, Nervous, Musculoskeletal, and Endocrine systems are examined. The medical terminology associated with these systems is also covered.

### **662-105**

#### **Advanced Circuits**

**Credits: 3.00**

In this course, students apply advanced circuit theory to electrical and electronic devices and circuits. They apply complex network theorems to real-world circuits and electronic systems. Upon completion of the course, students will be able to analyze and design complex circuits with the application of network theorems.

PREREQUISITES: Take 605-114 - DC/AC II Take 804-197 - College Algebra and Trigonometry with Applications

### **662-106**

#### **Advanced Electronics**

**Credits: 3.00**

In this course, students analyze electronic devices and circuits. They use fundamental mathematical modeling and applications to design circuits with the use of semiconductor devices and operational amplifiers. Upon successful completion of the course, students will be able to analyze and design complex circuits.

### **662-112**

#### **DC/AC III**

**Credits: 3.00**

This course introduces the student to the fundamental laws in electrical engineering technology and their application in advanced circuit analysis concepts and techniques. Topics include a brief review of Kirchoff's law, induction, capacitance, series-parallel circuits, power factor, impedance, and phasors. Then, superposition, Thevenin's theorem, Norton's theorem, mesh and nodal analysis, sinusoidal steady-state analysis, ideal transformers, and complex power are covered. The student will utilize both the 'hands-on' approach and computer simulation, including swept AC frequency circuit analysis, in the laboratory, as the laboratory experiments are designed to support the topics presented. PREREQUISITES: Course 605-114 - DC/AC II

### **662-124**

#### **Electronic Circuit Analysis**

**Credits: 3.00**

This course introduces the student to the fundamental laws in electrical engineering technology and their application in advanced circuit analysis concepts and techniques. Topics include frequency as a variable in the analysis of circuits with a sinusoidal excitation, Bode plots, and detailed analysis of resonant circuits. The student is introduced to small signal analysis of transistor amplifier circuits and examination of gain and frequency response of the circuit. The student will utilize both the 'hands-on' approach and computer simulation, including swept AC frequency circuit analysis, in the laboratory, as the laboratory experiments are designed to support the topics presented. PREREQUISITES: Course 605-120 - Electronic Devices I

### **664-100**

#### **Intro to Industrial Control Systems**

**Credits: 2.00**

In this course, learners are introduced to basic concepts of industrial computer-controlled systems. The learner explores various types of programming using robots and PLC and participates in lab experiments designed to introduce programming principles, electronic inputs and outputs (analog and digital), and communication between system components including Ethernet protocols. Upon completion of the course, learners will be able to explain how the control processes are utilized to automate manufacturing facilities.

### **664-101**

#### **PLC Industrial Control Sys Applications**

**Credits: 2.00**

In this course, learners develop machine process automation control systems with temperature, pressure, flow, and level controls. Learners investigate the utilization of PID loops in PLC program design. Learners program a PLC using vision, smart sensors, Servos, motor controls, and analog IO. Learners develop PLC programs including Human Machine Interface (HMI) with displays for machine input and output data. Upon completion of the course, learners will be able to build a PLC motion project for basic machine process automation control systems. PREREQUISITES: Complete courses 605-136 - Programmable Controller System Design and 664-102 - Motor Controls for Adv Manufacturing with a minimum grade of minimum grade C, TR;

### **664-102**

#### **Motor Controls for Adv Manufacturing**

**Credits: 3.00**

In this course, learners examine the fundamentals of electrical AC/DC/Servo/Stepper motors and motor controls. Learners will examine electrical safety work practices and apply NFPA 70 and NEC safety codes to various situations. Motor control devices and components (motor drives, relays, timers, counters, motor contactors, overloads) including electromechanical and solid state equipment will be presented. Learners will operate motors using PLC's. Upon completion of the course, learners will apply ladder logic, wiring diagrams, and PLC's to advanced manufacturing machines. COREQUISITES: Course 801-136 - English Composition 1

### **664-103**

#### **Motor Controls for Manufacturing**

**Credits: 3.00**

In this course, learners examine the fundamentals of electrical AC/DC/Servo/Stepper motors and motor controls. Learners will examine electrical safety work practices and apply NFPA 70 and NEC safety codes to various situations. Motor control devices and components (motor drives, relays, timers, counters, motor contactors, overloads) including electromechanical and solid state equipment will be presented. Learners will operate motors using PLCs. Upon completion of the course, learners will apply ladder logic, wiring diagrams, and PLCs to advanced manufacturing machines.

#### **664-104**

##### **Industrial Control System Applications**

**Credits: 2.00**

In this course, learners develop machine process automation control systems with temperature, pressure, flow, and level controls. Learners investigate the utilization of PID loops in PLC program design. Learners program a PLC using vision, smart sensors, Servos, motor controls, and analog IO. Learners develop PLC programs including Human Machine Interface (HMI) with displays for machine input and output data. Upon completion of the course, learners will be able to build a PLC motion project for basic machine process automation control systems. COREQUISITES: Take 664-118 - PLC and HMI Programming Take 664-103 - Motor Controls for Manufacturing

#### **664-105**

##### **Introduction to Industrial Robotics**

**Credits: 2.00**

In this course, learners are introduced to programming techniques for industrial robots. The learner examines teach pendant programming including I/O, routines, decision making, six frames of positional operation, and robot communication. Upon completion of the course, learners will be able to operate and program industrial robots commonly used in Industry 4.0.

#### **664-110**

##### **Intro to Mechatronics**

**Credits: 2.00**

In this course, learners are introduced to microprocessor controlled electromechanical systems. The learner examines how individual components work, and how they are integrated into simple systems. Upon completion of the course, learners will understand what technicians do in the workplace and how industry utilizes Mechatronics in advanced manufacturing.

#### **664-111**

##### **Machine Mechanisms**

**Credits: 3.00**

In this course, learners apply input forces and movement to mechanisms and determine the output forces and movement of the mechanisms. Applied mechanisms will be presented including: levers, bearings, gears, cams, couplings, brakes and clutches, belt and chain drives through splines, pins, and keys. Learners explore mechanisms that are supported by structural components such as a frame, fasteners, bearings, springs, and

other machine elements. Upon completion of the course, learners will analyze the combination of force and movement within machine elements to determine if system requirements are met and machine functions safely. PREREQUISITES: Take 664-100 - Intro to Industrial Control Systems Take 664-110 - Intro to Mechatronics Complete course 804-115 - College Technical Math 1 or a higher-level math course.

### **664-112**

#### **Fundamentals of Machining Processes**

**Credits: 3.00**

In this course, learners examine the fundamental skills of machining processes for a career in Advanced Manufacturing Technology. Lathes, mills, and grinders will be the primary machines explored. An overview of machining processes is presented. Setup and operation, manual lathes and mills, CNC lathes and mills, basic programming using G and M codes, and tooling required for lathes and mills will be presented. Upon completion of the course, students will be able to develop a machining process plan.

### **664-113**

#### **Leadership for Advanced Manufacturing**

**Credits: 3.00**

In this course, students explore how members of a team contribute to the success of project execution. They investigate work measurement analysis tools and the planning and layout of a manufacturing operation. Upon successful completion of the course, students will be able to recommend improvements to the manufacturing process.

### **664-115**

#### **Interpret Engineering Drawings**

**Credits: 2.00**

In this course, learners build foundation skills needed to read and interpret industrial prints. These skills, used to interpret industrial prints, are presented in a logical order: title blocks, change blocks, shop notes, symbols, lines, orthographic views, section views, auxiliary views, pictorial views, and assembly views. Learners interpret part geometric dimensions and tolerances using basic math skills. Upon completion of the course, learners will be able to read, interpret, and apply drawing content to advanced industrial equipment. PREREQUISITES: Take 804-135 - Quantitative Reasoning

### **664-116**

#### **Intro to Mfg Quality Control Systems**

**Credits: 2.00**

In this course, learners explore skills and tools necessary to fully participate in a lean, continuous improvement manufacturing environment. These include standardized work instructions, Total Productive Maintenance (TPM), mistake-proofing, changeover reduction, ergonomics, root cause analysis, Six Sigma, and quality management. Learners are introduced to basic statistical tools and fundamental concepts needed to improve and control industrial processes. Upon completion of the course, learners will be able to use statistical tools to improve processes, define problems, set priorities, predict outcomes, and identify causes of quality problems.

## **664-117**

### **Materials and Processes**

**Credits: 2.00**

In this course, learners examine the relationship between the properties and processes of various materials used in advanced industrial equipment. The properties include: mechanical strength, chemistry, and basic material characteristic. The processes include: modern manufacturing techniques, fabricating, casting, metallic finishes, plating and chip removal. Upon completion of the course, learners will be able to match materials and processes used in the manufacture of equipment. **PREREQUISITES:** Complete course 664-100 - Intro to Industrial Control Systems and 664-110 - Intro to Mechatronics with a minimum grade of C complete course 801-136 - English Composition 1 with minimum grade of D

## **664-118**

### **PLC and HMI Programming**

**Credits: 3.00**

In this course, students develop programming skills for PLCs (Programmable Logic Controllers) and HMI (Human Machine Interfaces). Students create PLC programs in various languages such as Ladder Diagram (LD), Structured Text (ST), Function Block Diagram (FBD), Sequential Function Chart (SFC). Students create visual HMI programs for manufacturing systems. Upon completion of this course, students will be able to create PLC and HMI applications for the manufacturing environment.

## **664-119**

### **Advanced Manufacturing Network Systems**

**Credits: 3.00**

In this course, students examine networks and protocols used in advanced manufacturing systems. They investigate hardware components, data transmission systems, communication lines, data sets, and interface protocols. Upon completion of the course, students will be able to analyze networking systems for advanced manufacturing.

## **664-120**

### **Intro to Industrial Internet of Things**

**Credits: 2.00**

In this course, learners are introduced to theoretical and practical topics of the Industrial Internet of Things (IIoT). The learner investigates the range of sensor and actuator devices available, ways in which they communicate and compute, methods for getting information to and from IIoT-enabled devices, and ways of visualizing and processing data acquired from the IIoT. Upon completion, learners will utilize hardware and software to construct a sensor network within an existing system and utilize industry standard tools to visualize the acquired data.

## **664-121**

### **Vision and Smart Sensors**

**Credits: 2.00**

In this course, learners will utilize 2D cameras, lighting systems and smart sensors in machine applications to provide imaging-based automatic inspection and analysis for such applications as automatic inspection, process control, and robot guidance. Learners will use vision systems to: sort good and bad parts; identify, position and orient objects images for robot guidance and orientation using edge detection; blob detection; pattern recognition; image acquisition; and bar code and QR code recognition. Learners will integrate smart sensors into PLC machine applications. Upon completion of this course learners will apply camera and smart sensors into a machine process application. PREREQUISITES: TAKE 664-118 - PLC and HMI Programming OR 605-136 - Programmable Controller System Design; Minimum Grade C Take 664-103 - Motor Controls for Manufacturing OR 664-102 - Motor Controls for Adv Manufacturing; Minimum Grade C

**664-122****Engineering Project Mgmt****Credits: 2.00**

In this course, learners explore a systematic approach to manufacturing project management. Learners examine project scope and its relationship to project success by considering coordinated schedules, activities, people, and resources. Upon completion of the course, learners will be able to apply Work Breakdown Structures, Activity Diagrams, and Gantt Charts to short-term and long-term manufacturing projects. PREREQUISITES: Course 801-136 - English Composition 1 with a minimum grade D

**664-123****Advanced Industrial Robotics****Credits: 2.00**

In this course, students explore advanced programming techniques for industrial robots. They examine interfacing peripheral devices such as programmable logic controllers, industrial sensors, and human-machine interfaces to a robot. Upon completion of the course, students will be able to apply advanced programming techniques to industrial robots. PREREQUISITES: Take 664-118 - PLC and HMI Programming Take 664-105 - Introduction to Industrial Robotics

**664-124****Integrated Systems Capstone****Credits: 3.00**

In this course, students design a complex integrated automation system. They use industrial robotics, programmable logic controllers, pneumatics/hydraulics, and sensors to develop the system. Upon successful completion, students will be able to design, program, troubleshoot, and improve a functional industrial automation system. PREREQUISITES: Take 664-118 - PLC and HMI Programming Take 664-123 - Advanced Industrial Robotics

**699-110****Communication Document Design****Credits: 3.00**

In this course, students design documents by combining colors, images, layouts, lists, tables, and typefaces. They explore graphic design, technical communication, typography, and user experience theories about document design and the impact of design on audiences. Applying these theories, they use publishing tools, such as Adobe InDesign software and a website builder, to create print and web designs. Upon completing the course, students will be able to design single-page and multi-page documents consistent with the studied theories.

### **699-111**

#### **Communication Project Management**

##### **Credits: 3.00**

In this course, students explore and use the skills and tools needed to analyze, design, develop, implement, and evaluate communication projects. They examine and apply skills and tools for researching requirements, planning projects, tracking progress, managing change, publishing communications, and evaluating quality. In addition, they explore strategies to work effectively and ethically with clients, coworkers, and vendors. Upon completing the course, students will be able to define and manage communication projects at expected quality levels, budgets, and deadlines.

### **699-112**

#### **Editing**

##### **Credits: 3.00**

In this course, students produce edits that meet the needs of authors, clients, and audiences. They apply editing strategies, use editing tools, and follow best practices to identify corrections, changes, and suggestions for authors. Following a style guide, they edit a document's content, parts, design, language, markup, permissions, and sentence skills. Upon completing the course, students will be able to prepare comprehensive edits, copyedits, and proofs that improve publications.

### **699-113**

#### **Information Design**

##### **Credits: 3.00**

This course gives students skills and practice needed to design and manage communication products using professional communications strategies. Students explore and apply strategies to structure communication products so that users can access information easily, understand it, and feel comfortable with its presentation. XML is also introduced. PREREQUISITES: Course 831-103 - College Writing, Intro with a minimum grade of C or TR or achieve the required placement test score

### **699-114**

#### **Professional and Technical Writing**

##### **Credits: 3.00**

This course gives students skills and practice needed to develop communication products for business, government, and not-for-profit organizations. Students are introduced to the professional communications field and career options. They use a professional process to develop and publish a variety of communication



products. PREREQUISITES: Course 831-103 - College Writing, Intro with a minimum grade of C or TR or achieve the required placement test score

### **699-115**

#### **Professional Communications Internship**

**Credits: 3.00**

In this course, students apply their communications skills and knowledge in a professional setting. They spend a minimum of 144 hours performing communications tasks, and they consult for up to one hour per week with the instructor. They work with a sponsor at a local business, government agency, or not-for-profit organization to set up and complete an internship. Upon completing the course, students will be able to describe a professional work experience to future employers, present a sponsor's feedback, and share communication samples. PREREQUISITES: Take 699-112 - Editing; Minimum Grade C,TR; Take 699-116 - Professional Communications Portfolio; Minimum Grade C,TR; Take 699-117 - Research Fundamentals; Minimum Grade C, TR;

### **699-116**

#### **Professional Communications Portfolio**

**Credits: 1.00**

In this course, students prepare for a communications career or higher education. They reflect on their progress throughout their Gateway studies, and they develop portfolios for their future careers or education following best practices in the communications field. They explore career resources, job hunting strategies, potential employers, and four-year colleges. Upon completing the course, students will be able to present a portfolio of their work that helps them with their career and education goals. PREREQUISITES: Take 804-135 - Quantitative Reasoning Take 801-136 - English Composition 1

### **699-117**

#### **Research Fundamentals**

**Credits: 3.00**

In this course, students explore the research methods that professional communicators use to find information about their clients, audiences, and subject matter. They use interviews, surveys, experiments, and usability tests to gather information from primary sources, and they use the library and Internet to gather information from secondary sources. They interpret qualitative and quantitative research and incorporate the findings into plans and their writing. Upon completing the course, students will be able to demonstrate professional research methods and the use of research in their writing.

### **699-130**

#### **Writing and Publishing**

**Credits: 3.00**

In this course, students explore options for publishing print and digital publications. When working with print publications, they identify their responsibilities to commercial printers, differentiate types of printing, follow print-industry practices, and employ strategies to ensure quality print jobs. When working with digital

publications, they optimize files for online distribution, integrate features for a satisfying user experience, and distribute files following professional practices. Students use publishing software, such as Adobe Acrobat software. Upon completing the course, students will be able to print documents in collaboration with commercial printers and to produce digital publications.

### **699-133**

#### **Writing for Social Media**

**Credits: 3.00**

In this course, students explore and use social media to develop a presence for an organization. They set up presences and engage audiences on blogs, microblogs, networking sites, collaborative communities, and content-sharing sites. While on social media, they apply best practices on each site, use technology to develop images and multimedia, and share content to attract and engage followers. Students measure their influence and progress toward objectives. Upon completing the course, students will be able to show a social media presence on multiple sites, including Facebook, Instagram, and Twitter.

### **699-134**

#### **Writing for the Media**

**Credits: 3.00**

In this course, students create news stories for digital, print, and audiovisual media outlets. Students research and plan story assignments, and then they find content for the stories using primary and secondary sources. They write the stories, applying journalistic strategies to ensure newsworthiness, objectivity, accuracy, and fairness. After incorporating edits into their stories, they assemble the stories with images into a final publication. Upon completing the course, students will be able to create stories publishable in newsletters and at media outlets.

### **699-135**

#### **Writing for the Web**

**Credits: 3.00**

In this course, students create and publish web content used in online ads, web pages, and websites. They apply web content theories, information architecture, SEO strategies, and user experience principles to design and create engaging online experiences. They write, illustrate, and revise web content. They conduct usability tests to ensure accessible and usable websites; then, they launch the ads, pages, and sites using a content management system, such as WordPress. Upon completing the course, students will be able to create and maintain web content for an organization.

### **699-137**

#### **Writing Product Documentation**

**Credits: 3.00**

In this course, students create and publish manuals and related documentation for electrical and mechanical products. They apply information architecture, plain language, safety, and user experience strategies to design and create conceptual, reference, and task topics for the manuals. They research, write, illustrate, and revise

topics for the manuals. They conduct usability tests to ensure accessible and usable documentation, and they publish print and digital copies using professional tools, such as software in the Adobe Creative Cloud. Upon completing the course, students will be able to create documentation that helps an organization's customers learn and use its products.

### **699-138**

#### **Writing Software User Assistance**

**Credits: 3.00**

In this course, students create user assistance (UA) for software products. They apply information architecture, plain language, and user experience strategies to design and create conceptual, reference, and task topics for the UA. They research, write, link, and revise topics for the UA. They conduct usability tests to ensure accessible and usable UA, and they build the UA for multiple outputs using professional tools, such as MadCap Flare software. Upon completing the course, students will be able to deliver UA that helps an organization's users learn and use its software products.

### **699-139**

#### **Writing Copy and Proposals**

**Credits: 3.00**

In this course, students develop marketing and proposal communications used by for-profit and not-for-profit organizations. They explore audience psychology, data sources, marketing strategies, persuasive techniques, and mediachannels. Using these, they research, plan, create, publish, and evaluate copy for print, mobile phones, and the web. They also research, plan, create, publish, and evaluate a grant or sales proposal. Upon completing the course, students will be able to publish persuasive sales copy, and they will be able to submit competitive proposals on behalf of an organization.

### **699-140**

#### **Writing for Public Relations**

**Credits: 3.00**

In this course, students develop public relations (PR) communications for organizations. They explore public opinion tracking, positive and negative situations faced by organizations, resources needed for public relations campaigns, and media channels for communications. Using rhetorical and PR strategies, they research, create, and evaluate strategic PR communications and activities to manage an organization's reputation and engage its public. Upon completing the course, students will be able to use PR and communication strategies to help an organization build relationships with its publics.

### **801-136**

#### **English Composition 1**

**Credits: 3.00**

This course is designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research, and format documents using standard guidelines.

Individuals will develop critical reading skills through analysis of various written documents. PREREQUISITES: Course 831-103 - College Writing, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 with a minimum grade of C or TR or achieve the required placement test score

### **801-196**

#### **Oral/Interpersonal Communication**

**Credits: 3.00**

This course focuses upon developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects.

### **801-197**

#### **Technical Reporting**

**Credits: 3.00**

The student will prepare and present oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. This course is designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course. PREREQUISITES: Course 801-136 - English Composition 1

### **801-198**

#### **Speech**

**Credits: 3.00**

This course explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of the course.

### **801-202**

#### **English Composition 2**

**Credits: 3.00**

This course builds on the writing skills learned in English Composition 1. Students develop critical reading and writing skills and produce original compositions demonstrating critical thinking ability. Students also produce a documented research project using primary and secondary sources. PREREQUISITES: Take 801-136 - English Composition 1; Minimum Grade C

### **801-204**

#### **Introduction to Literature**

**Credits: 3.00**

Recommended as a first course in literary analysis, this course introduces students to the major genres of literature and addresses issues related to writing about literature and/or other texts. PREREQUISITES: Take 801-136 - English Composition 1; Minimum Grade C

## **801-205**

### **Creative Writing**

**Credits: 3.00**

This course focuses on the study and production of written work in three genres: fiction, nonfiction, and poetry. Through the workshop method of instruction, students will complete writing exercises and other projects designed to enhance creativity. Students will also develop an awareness of their audience, build collaborative discussion skills, offer and use constructive feedback, analyze other writers' creative and critical thinking processes, and learn other skills transferable to their academic and professional lives. PREREQUISITES: Take 801-136 - English Composition 1; Minimum Grade C

## **801-212**

### **Ethnic Literature**

**Credits: 3.00**

Explores questions of identity within various cultural contexts. Writers represent one or more ethnic groups working in one or more genres of literature with emphasis on developments in voice, genre, and style over chronological periods and geographical zones. Individual sections may vary in particular emphasis. PREREQUISITES: Take 801-136 - English Composition 1; Minimum Grade of C

## **801-301**

### **Writing Principles**

**Credits: 1.00**

Reviews the fundamentals of grammar. Emphasizes practical application of English in business correspondence. PREREQUISITES: Course 851-760 or 851-756 - Foundations of Writing with a minimum grade of C or TR or achieve the required placement test score

## **801-302**

### **Speaking Principles**

**Credits: 1.00**

Covers techniques of verbal and non-verbal communication. Presentation techniques in informative, demonstrative, persuasive and impromptu situations are stressed.

## **801-500**

### **Apprentice Communications**

**Credits: 1.00**

Discusses basic communications concepts relating to the workplace. Skills covered are giving instructions explaining technical processes.

## **801-981**

### **Written Communication Ged Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Written Communication credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**801-982****Written Communication Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Written Communication credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other program and cannot be used as a substitute for any other course.

**801-983****Verbal Communication Ged Ed Credit****Credits: 3.00**

This course is used to award up to 12 Verbal Communication credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**801-984****Verbal Communication Ged Ed Credit****Credits: 3.00**

This course is used to award up to 12 Verbal Communication credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**801-991****Communication General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 801 area.

**801-992****Communication General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 801 area.

**801-993**

### **Communication General Education Credit**

**Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 801 area.

**801-994**

### **Communication General Education Credit**

**Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 801 area.

**801-999**

### **Communication Elective Credit**

**Credits: 3.00**

This course is used to award up to 12 credits to students transferring to Gateway without a previous Associates degree or higher. This credit can only be used to fulfill program elective requirements and cannot be used as a substitute for any other course.

**802-118**

### **SPA IV: Fourth Semester Spanish**

**Credits: 4.00**

Spanish IV is a continuation of Spanish III and further develops all basic language skills: listening comprehension, speaking, reading, and writing. Spanish IV is the fourth semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish III at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of intermediate vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Course 802-119 - SPA III: Third Semester Spanish OR 802-203 - Spanish 3 with a minimum grade of C or TR

**802-119**

### **SPA III: Third Semester Spanish**

**Credits: 4.00**

Spanish III reviews the material taught in Spanish I and Spanish II and further develops all basic language skills: listening comprehension, speaking, reading, and writing. Spanish III is the third semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish II at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of intermediate vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion

classes. PREREQUISITES: Course 802-112 or 802-125 - SPA II: Second Semester Spanish or 802-202 - Spanish 2 with a minimum grade of C or TR

### **802-124**

#### **SPA I: First Semester Spanish**

**Credits: 4.00**

Spanish I will develop and emphasize all basic language skills: listening comprehension, speaking, reading, and writing. Spanish I is the first-semester Spanish course at Gateway Technical College and is designed for those students with little or no previous knowledge of the Spanish language and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of basic vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **802-125**

#### **SPA II: Second Semester Spanish**

**Credits: 4.00**

Spanish II is a continuation of Spanish I and will continue to emphasize the development of all basic language skills: listening comprehension, speaking, reading, and writing. Spanish II is the second semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish I at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of basic vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Complete course 802-111 or 802-124 - SPA I: First Semester Spanish or 802-201 - Spanish 1 with a minimum grade of C

### **802-126**

#### **Spanish for Healthcare Providers**

**Credits: 3.00**

In this course, students examine language that helps them become culturally-competent healthcare workers. A variety of cultural competencies are presented. Rudimentary grammar and basic vocabulary related to the healthcare environment are practiced. The course is taught primarily in English and is designed for health care students, but all students of the Spanish language will benefit from the content. Upon completion of the course students will be able to deliver basic healthcare service that meets the social, cultural, and linguistic needs of Hispanics.

### **802-127**

#### **Spanish for First Responders**

**Credits: 3.00**

In this course, students demonstrate vocabulary and language structures to communicate at a basic level. Students develop a strong cultural component designed to foster effective communication, trust, mutual



respect, and cultural awareness. Upon completion, the students will be able to effectively meet the social, linguistic, and cultural needs of the Hispanic community they serve.

### **802-201**

#### **Spanish 1**

**Credits: 4.00**

Spanish 1 will develop and emphasize all basic language skills: listening comprehension, speaking, reading, and writing. Spanish I is the first-semester Spanish course at Gateway Technical College and is designed for those students with little or no previous knowledge of the Spanish language and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of basic vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **802-202**

#### **Spanish 2**

**Credits: 4.00**

Spanish 2 is a continuation of Spanish I and will continue to emphasize the development of all basic language skills: listening comprehension, speaking, reading, and writing. Spanish II is the second-semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish I at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of basic vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Complete course 802-124 - SPA I: First Semester Spanish OR 802-201 - Spanish 1 with a minimum grade of C or TR

### **802-203**

#### **Spanish 3**

**Credits: 4.00**

Spanish 3 reviews the material taught in Spanish 1 and Spanish 2 and further develop all basic language skills: listening comprehension, speaking, reading, and writing. Spanish III is the third-semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish II at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of intermediate vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Course 802-125 - SPA II: Second Semester Spanish OR 802-202 - Spanish 2 with a minimum grade of C or TR

### **802-204**

#### **Spanish 4**

**Credits: 4.00**

Spanish 4 is a continuation of Spanish 3 and further develops all basic language skills: listening comprehension, speaking, reading, and writing. Spanish IV is the fourth semester Spanish course at Gateway Technical College and is designed for those students who have completed Spanish 3 at Gateway or another college/university and for native Spanish speakers who would like to improve their grammar, reading, and writing. Classes will include an extensive study of intermediate vocabulary and grammatical structures as well as cultural studies of both Spain and Latin America. All Spanish classes taught at Gateway are immersion classes. PREREQUISITES: Course 802-119 - SPA III: Third Semester Spanish OR 802-203 - Spanish 3 with a minimum grade of C or TR

### **802-220**

#### **Latinos in the US: Culture, Lang, & Lit**

**Credits: 3.00**

In this course, learners explore the Latino experience in the United States. They examine the struggle to forge a unique identity within and outside of a dominant culture and language. Drawing from a variety of literary genres, learners analyze the social, linguistic, and cultural issues that Latinos confront living in the United States. Upon completion of the course, learners will be able to explain the historical, societal, and economic context in which Latinos experience the United States.

### **802-981**

#### **World Languages Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 World Languages credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **802-982**

#### **World Languages Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 World Languages credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **804-115**

#### **College Technical Math 1**

**Credits: 5.00**

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; trigonometric functions on the unit circle; and operations on polynomials. Emphasis will be on the application of skills to technical problems. This course is the equivalent to College Technical Math 1A and College Technical Math 1B. PREREQUISITES: Course 834-110 - Elementary Algebra with Applications with a minimum grade of C or TR or achieve the required placement test score

### **804-133**

## **Mathematics and Logic**

**Credits: 3.00**

Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. PREREQUISITES: Course 834-110 - Elementary Algebra with Applications with a minimum grade of C or meet the required placement test score

### **804-135**

## **Quantitative Reasoning**

**Credits: 3.00**

This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered may include: construction & interpretation of graphs; descriptive statistics; geometry & spatial visualizations; math of finance; functions and modeling; probability; and logic. Appropriate use of units and dimensions, estimates, mathematical notation, and available technology will be emphasized throughout the course. PREREQUISITES: Complete course 834-109 - Pre-Algebra with a minimum grade C or TR or meet required placement test score

### **804-163**

## **Intro to Mathematics**

**Credits: 2.00**

In this course, students examine general mathematical concepts. Students investigate applications for the English and metric systems, direct measurement, algebra, and plane geometry. Upon completion of the course, students will be able to apply general mathematical concepts in a practical, industrial work environment.

### **804-181**

## **Calculus 2**

**Credits: 4.00**

Students will develop techniques for differentiation and integration of transcendental functions and use the derivative and the integral to solve certain applied problems. They will also extend calculus techniques to curves in polar coordinates and three-dimensional surfaces and form a basic understanding of infinite series and associated applications. PREREQUISITES: Complete course 804-198 - Calculus 1 with a minimum grade C

### **804-182**

## **Calculus 3**

**Credits: 4.00**

Students will parameterize curves and polar coordinates, vectors in the plane and in space, vectors and analytical geometry in space, vector valued functions and motion in space, multivariable functions and their partial derivatives, evaluate multiple integrals. PREREQUISITES: Course 804-181 - Calculus 2 OR 804-211 - Calculus 3 with a minimum grade of C or TR

### **804-189**

## **Statistics, Introductory**

**Credits: 3.00**

Students taking Introductory Statistics display data with graphs, describe distributions with numbers perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA. PREREQUISITES: Complete one of the following courses: 804-107, 804-115 - College Technical Math 1, 804-123, 804-135 - Quantitative Reasoning, 804-181 - Calculus 2, 804-182 - Calculus 3, 804-197 - College Algebra and Trigonometry with Applications, 804-198 - Calculus 1 or 834-110 - Elementary Algebra with Applications Minimum grade C,TR;

### **804-197**

#### **College Algebra and Trigonometry with Applications**

**Credits: 5.00**

This course covers those skills needed for success in Calculus and many application areas on a baccalaureate level. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinatorial and the binomial theorem. PREREQUISITES: Complete course 804-114 or 804-115 - College Technical Math 1 with a minimum grade of C or TR or meet required placement test score.

### **804-198**

#### **Calculus 1**

**Credits: 4.00**

Students analyze and graph algebraic expressions, especially conic sections, develop an intuitive understanding of limits, derivatives, and integrals, and apply the derivative and integral to certain physical problems. PREREQUISITES: Complete course 804-197 - College Algebra and Trigonometry with Applications with a minimum grade of C or TR or meet required placement test score.

### **804-211**

#### **Calculus 3**

**Credits: 4.00**

Students will parameterize curves and polar coordinates, vectors in the plane and in space, vectors and analytical geometry in space, vector valued functions and motion in space, multivariable functions and their partial derivatives, evaluate multiple integrals. PREREQUISITES: Course 804-210 OR 804-181 - Calculus 2 with a minimum grade of C or TR

### **804-255**

#### **Ordinary Differential Equations**

**Credits: 4.00**

This course presents techniques for solving and approximating solutions to ordinary differential equations. Topics will include solving first-order differential equations, solving second and higher-order linear differential equations, Laplace and Fourier transform, systems of first-order linear differential equations, numerical methods, and Sturm-Liouville Theory. PREREQUISITES: Take 804-181 - Calculus 2 OR 804-210; Minimum Grade of C

### **804-370**

#### **Mathematics I/Applied**

**Credits: 2.00**

Reviews the four basic mathematical operations on whole numbers, fractions and decimals. Also covers basic algebra and trigonometry related to technical fields. PREREQUISITES: Course 854-760 - Mathematics/Pre Technical with a minimum grade of C or meet placement test

### **804-371**

#### **Mathematics II/Applied**

**Credits: 1.00**

Covers geometric principles along with calculations of linear, area and volume measurements. Includes interpreting and sketching graphs, the metric system, a method to solve technical conversions problems, and an introduction to statistics. PREREQUISITES: Complete course 804-370 - Mathematics I/Applied with a minimum grade of C or meet placement test score

### **804-502**

#### **Math 1 for Apprentice**

**Credits: 1.00**

This course will cover fractions, decimal fractions, linear measurements (English and metric).

### **804-507**

#### **Intro to Math Apprenticeship**

**Credits: 1.00**

This course will provide a foundation in the fundamentals of the application of mathematics. Emphasis is placed on achieving an understanding of general mathematical concepts, applications for the English and metric systems, direct measurement, algebra, and plane geometry. Each section will provide the student with the opportunity to apply mathematics to a practical shop situation.

### **804-981**

#### **Math Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Math credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

## **804-982**

### **Math Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Math credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

## **804-983**

### **Math Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Math credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

## **804-999**

### **Math Elective Credit**

**Credits: 3.00**

This course is used to award up to 12 credits to students transferring to Gateway without a previous Associates degree or higher. This credit can only be used to fulfill program elective requirements and cannot be used as a substitute for any other course.

## **806-105**

### **Principles of Animal Biology**

**Credits: 4.00**

Introductory course focusing on general biological principles, cell structure and function, genetics, comparative anatomy and physiology, evolution, and ecosystems. Includes dissection of various fresh and preserved materials. This course is appropriate for OTA, AODA and other allied health students. PREREQUISITES: Take course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 OR achieve placement test score

## **806-112**

### **Principles of Sustainability**

**Credits: 3.00**

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

## **806-114**

### **General Biology**

**Credits: 4.00**

This course introduces general biological concepts and principles. Emphasis is on cell structure and function, genetics, evolution, and taxonomical relationships. Consideration is also given to diversity among the various kingdoms. PREREQUISITES: Take course 838-105 - Reading & Study Skills, Intro OR 851-757 - College Writing Lab OR 831-107 - College Reading and Writing 1 or achieve the required placement test score

## **806-127**

### **Chemistry 1**

**Credits: 4.00**

Fundamental concepts of inorganic chemistry. Emphasizes learning the basic principles and quantitative measurements used in chemistry. Consists of three hours of lecture and one, two-hour laboratory period per week. PREREQUISITES: Complete course 804-197 - College Algebra and Trigonometry with Applications or course 804-135 - Quantitative Reasoning Quantitative Reasoning

## **806-134**

### **General Chemistry**

**Credits: 4.00**

This course covers the fundamentals of chemistry. Topics covered include the metric system, problem solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water, acids, bases, and salts, and gas laws. PREREQUISITES: Course 834-109 - Pre-Algebra OR Complete 834-110 - Elementary Algebra with Applications (Elementary Algebra- C) OR 804-115 - College Technical Math 1 (College Tech Math 1- C) OR 804-197 - College Algebra and Trigonometry with Applications (Algebra & Trig with Apps- C) OR 804-198 - Calculus 1 (Calculus 1- C) OR 804-181 - Calculus 2 (Calculus 2- C) OR 804-182 - Calculus 3 (Calculus 3- C) with a minimum grade of C or achieve the required placement test score

## **806-151**

### **Supplemental Chemistry for Healthcare**

**Credits: 1.00**

In this course, students examine basic math and chemistry principles as they relate to health professions. Students build on foundational knowledge to practice calculations in dimensional analysis and explore atoms, bonds, nomenclature, pH, and buffer systems relevant to health and the human body. Upon completion of this course, students will be able to apply these principles to health careers.

## **806-154**

### **General Physics 1**

**Credits: 4.00**

This course presents the applications and theory of basic physics principles. It emphasizes problem solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational

and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves. PREREQUISITES: Complete course 804-115 - College Technical Math 1 or a higher level math course.

### **806-158**

#### **Calc Physics 1 Enhancement**

**Credits: 1.00**

This course is a mathematical enhancement that transforms General Physics 1 (4 cr) into Calc-based Physics 1 (5 cr). In this course, students will examine deriving fundamental kinematic equations, time- and position-varying forces, impulse, work, rotational motion, moments of inertia, simple-harmonic motion, and thermodynamics. PREREQUISITES: Complete course 804-198 - Calculus 1 or a higher level math course. COREQUISITES: Take 806-154 - General Physics 1

### **806-177**

#### **General Anatomy and Physiology**

**Credits: 4.00**

This course examines the basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision making and professional communication with colleagues and patients. PREREQUISITES: Take course 838-105 - Reading & Study Skills, Intro OR 851-757 - College Writing Lab OR 831-107 - College Reading and Writing 1 or achieve the required placement score

### **806-179**

#### **Anatomy and Physiology, Advanced**

**Credits: 4.00**

Advanced Anatomy and Physiology is the second semester in a two semester sequence in which normal human anatomy and physiology are studied, using a body systems approach, with emphasis on the interrelationships between form and function at the gross and microscopic levels of organization. Instruction is delivered both within a classroom and in a laboratory setting. Experimentation within a science lab includes analysis of cellular metabolism and the individual components of body systems, such as the nervous, neuromuscular, cardiovascular, and urinary systems. Students examine homeostatic mechanisms and their relationship to fluids, electrolytes, acid-base balance, and blood. Integration of genetics to human reproduction and development are also included in this course. PREREQUISITES: Course 806-177 - General Anatomy and Physiology with a minimum grade of C or TR

### **806-180**

#### **Supplemental Anatomy for Advanced A&P**

**Credits: 1.00**



In this course, students will explore the fundamentals of anatomical relationships. They will identify cardiovascular, digestive, respiratory, urinary, and reproductive structures and basic functions. Upon completion of this course, students will be able to describe the systemic connections of visceral organ systems. PREREQUISITES: Take 806-177 - General Anatomy and Physiology OR 806-195 - Anatomy and Physiology I

### **806-186**

#### **Biochemistry/Introduction**

**Credits: 4.00**

This introductory course is designed for students in health sciences. Selected topics of inorganic and organic chemistry are applied to fundamental areas of biochemistry. Units of study include carbohydrates, lipids and proteins, enzymes, nucleic acids, bioenergetics, metabolic pathways, and body fluids. PREREQUISITES: Take course 806-177 - General Anatomy and Physiology OR 806-134 - General Chemistry OR 806-209 - College Chemistry 1 OR 806-212 - College Chemistry 2 Minimum Grade C

### **806-195**

#### **Anatomy and Physiology I**

**Credits: 4.00**

The first semester in a two-semester series that studies human anatomy and physiology according to the body systems approach, but with consideration of functional interrelationships of the various systems. Fundamental concepts and principles of cell biology, tissues, and the integumentary, skeletal, muscular, nervous, and endocrine systems are studied.

### **806-196**

#### **Anatomy and Physiology II**

**Credits: 4.00**

Anatomy and Physiology II studies human anatomy and physiology according to the body's system approach, but with consideration of functional interrelationships of the various systems. Emphasis is on the normal structure and function of the cardiovascular system, lymphatic system, immune system, respiratory system, digestive system, metabolism, the urinary system, fluid and electrolyte balance, acid base balance and the reproductive system. PREREQUISITES: Course 806-195 - Anatomy and Physiology I minimum grade C

### **806-197**

#### **Microbiology**

**Credits: 4.00**

Topics include structure and functions of microorganisms, microbial control, infectious diseases, immunity and resistance to disease, problems of sanitation and control in relation to microbiology of air, water, food and sewage. This course is equivalent to 806-197 at other WTCS schools. PREREQUISITES: Course 806-177 - General Anatomy and Physiology or 806-105 - Principles of Animal Biology or 806-196 - Anatomy and Physiology II or 806-238 - Biology 2 with a minimum grade C or TR

### **806-201**

## **Survey of Natural Science**

**Credits: 4.00**

In this course, students survey the field of natural science. Students will examine and apply the scientific method to the physics, chemistry, biology, and health science disciplines as they demonstrate basic scientific principles through laboratory experiments and structured investigations. Upon completion of this course, students will be able to explain the uniqueness of each of these scientific disciplines and the importance of the field of natural science.

## **806-203**

### **Nutrition**

**Credits: 3.00**

This course provides an introduction to the science of nutrition. Basic concepts related to digestion and metabolism are presented. The significance of carbohydrates, lipids, proteins, and vitamins to the human organism is discussed. The relationship of proper nutrition to selected pathological conditions throughout the human lifecycle is presented. The concept of sustainability and environmentally conscious food production is introduced. PREREQUISITES: Take course 838-105 - Reading & Study Skills, Intro OR 851-757 - College Writing Lab OR 831-107 - College Reading and Writing 1 or achieve placement test score

## **806-204**

### **Human Pathophysiology**

**Credits: 3.00**

In this course, the learner will expand and reinforce knowledge as it relates to pathology across the lifespan. The course is designed to support the health care provider in understanding from a cellular level how functional and physiologic changes occur as a result of a disease. A comprehensive understanding of anatomy and physiology is addressed and promoted. Physiological alterations of focus will include: neoplasms; congenital and genetic disorders; diseases related to the child, adult, and elderly; neurologic, cardiovascular, respiratory, digestive, genitourinary, endocrine, musculoskeletal, skin and reproductive disorders. Special emphasis is placed on promoting a climate where the learner is expected to synthesize and apply previously learned concepts to physiologic adaptations because of a defined pathology. PREREQUISITES: Take 806-177 - General Anatomy and Physiology; Minimum Grade C

## **806-209**

### **College Chemistry 1**

**Credits: 5.00**

General college chemistry includes the topics of measurement, chemical nomenclature, chemical reactions and stoichiometry, atomic structure, gas laws, thermochemistry, chemical bonding, and solution chemistry. The course is for students who need the first one of two semesters of what is typically considered freshman university-level chemistry for science majors and university transfer students. Laboratory work assists in understanding chemical concepts and developing problem-solving skills. PREREQUISITES: Complete course 834-110 - Elementary Algebra with Applications or a higher-level math course with a minimum grade of C or TR or achieve the required placement test score.

## **806-212**

### **College Chemistry 2**

**Credits: 5.00**

College Chemistry 2 is a continuation of 20-806-207. This course covers the principles and applications of organic chemistry, reaction kinetics, equilibrium, thermodynamics, electrochemistry, coordination compounds, nuclear chemistry, and environmental chemistry. Lab activities explore traditional analytical chemistry techniques using extensive computer-assisted data analysis. This course involves rigorous quantitative problem-solving, and a solid mathematics background is recommended. PREREQUISITES: Take 806-209 - College Chemistry 1; Minimum Grade of C

## **806-224**

### **University Physics 2 - Calc Based**

**Credits: 5.00**

This is the second course in a two-semester sequence using algebra, trigonometry, and calculus to introduce basic concepts of physics. Topics covered include electrostatics, electricity and magnetism, elementary electrical circuits, electromagnetic waves and the nature of light, and optics. Additional topics may include sound, fluid mechanics, Maxwell's equations, basic alternating current circuits, or selected topics in modern physics as time allows. PREREQUISITES: Take 806-154 - General Physics 1; Minimum Grade of C Take 806-158 - Calc Physics 1 Enhancement; Minimum Grade of C Take 804-198 - Calculus 1; Minimum Grade of C

## **806-237**

### **Biology 1**

**Credits: 5.00**

In this course, students examine the chemical basis of life and biological function at the molecular and cellular levels. They explore the fundamentals of biochemistry, cell biology, genetics, and molecular biology through structured lecture and laboratory activities. Upon completion of this course, students will have acquired fundamental knowledge cellular and molecular biology. PREREQUISITES: Complete course 834-110 - Elementary Algebra with Applications or a higher-level math course with a minimum grade of C or TR or achieve the required placement test score.

## **806-238**

### **Biology 2**

**Credits: 5.00**

In this course, students analyze the biological diversity of living organisms. They examine biological classification, evolution, adaptation, and ecology through structured lecture and laboratory explorations. Upon completion of this course, students will have acquired fundamental knowledge in organismal and evolutionary biology. PREREQUISITES: Take 806-237 - Biology 1; Minimum Grade of C

## **806-981**

### **Natural Science Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Natural Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**806-982****Natural Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Natural Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**806-983****Lab Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Lab Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**806-984****Lab Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Lab Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**806-992****Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 806 area.

**806-993****Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 806 area.

**806-994**

## **Science Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 806 area.

**806-999**

## **Natural Science Elective Credit**

**Credits: 3.00**

This course is used to award up to 12 credits to students transferring to Gateway without a previous Associates degree or higher. This credit can only be used to fulfill program elective requirements and cannot be used as a substitute for any other course.

**807-201**

## **Fitness Fundamentals**

**Credits: 1.00**

This course is designed to provide students with the basic information and skills needed to begin a personalized exercise program and maintain a healthy and active lifestyle. Students will participate in both pre- and post-testing including the five components of fitness (muscular strength, muscular endurance, cardiorespiratory endurance, flexibility, and body composition). Throughout the course, students participate in a fitness program involving elements of cardiorespiratory endurance, strength, and flexibility.

**807-205**

## **Health and Wellness**

**Credits: 1.00**

In this course, students explore the components of health and wellness. They assess their own health and wellness status and construct a plan for maintaining or achieving a healthy lifestyle. Upon completion of the course, students will be able to make realistic appraisals of their health and make active choices to optimize their well-being.

**807-981**

## **Health/Wellness/Pe Gen Ed Credit**

**Credits: 1.00**

This course is used to award up to 12 Health/Wellness/Physical Education credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**807-982**

## **Health/Wellness/Pe Gen Ed Credit**

**Credits: 1.00**

This course is used to award up to 12 Health/Wellness/Physical Education credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **809-103**

#### **Think Critically & Creatively**

**Credits: 3.00**

This course provides instruction in the vital, realistic, and practical methods of thinking which are in high demand in all occupations of substance today. Decision-making, problem-solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in-depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is demonstration, discussion, project, and teamwork-based. Assignments range from the short and simple to the detailed and complex. Reality and practicality are the focuses all through the course. PREREQUISITES: Take 1 group; # Take 838-105 - Reading & Study Skills, Intro; # Take OPTION-TEST; From rule TSTRFC;

### **809-122**

#### **Intro to Amer Government**

**Credits: 3.00**

An introductory course in political science concerned with the role of government in a democratic society, the constitution, Congress and the presidency, the federal court system, federal powers and functions, and the political party system of the American Government; and how they relate to contemporary society.

### **809-128**

#### **Marriage and Family**

**Credits: 3.00**

This course introduces the student to the sociological aspects of marriage and family life in contemporary American society. Emphasis is on the study of cognitive, emotional, and behavioral patterns associated with courtship, love, mate selection, sexuality, and marriage. Moreover, it discusses the life span development in the family life cycle, balancing work and family, and parenting. This course is based on the premise that human attitudes, feelings, and behaviors are largely shaped and influenced by philosophy, gender, communication, and personal beliefs. Therefore, success in the institutions of marriage and family require knowledge and skills in the roles of spouse and parent and ways to apply concepts to daily life. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-143**

#### **Microeconomics**

**Credits: 3.00**

This course examines the behavior of individual decision makers, primarily consumers and firms. Topics include choices of how much to consume and to produce, the functioning of perfectly and imperfectly competitive

markets, the conditions under which markets may fail, and arguments for and against government intervention. The student applies the fundamental tools of economics to real world problems. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-159**

#### **Psychology, Abnormal**

**Credits: 3.00**

This course in abnormal psychology surveys the essential features, possible causes, and assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Students will be introduced to the diagnosis system of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR). In addition, the history of the psychology of abnormality will be traced. Cultural and social perspectives in understanding and responding to abnormal behavior will be explored as well as current topics and issues within abnormal psychology. PREREQUISITES: Course 809-198 - Psychology, Introduction to

### **809-166**

#### **Ethics: Theory & Applications, Intro to**

**Credits: 3.00**

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social, and/or professional standards of behavior and apply a systematic decision-making process to these situations. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-172**

#### **Diversity Studies, Introduction to**

**Credits: 3.00**

Race, Ethnic, and Diversity Studies is a course that draws from several disciplines to reaffirm the basic American values of justice and equality by teaching a basic vocabulary, a basic history of immigration and conquest, principles of transcultural communication, legal liability, and the value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences, sexual orientation, people with disabilities, and the Americans with Disabilities Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 with a minimum grade of C or TR or achieve the required placement test score

### **809-188**

#### **Psychology, Developmental**

**Credits: 3.00**

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-195**

#### **Economics**

**Credits: 3.00**

An introductory course which describes, analyzes, and critiques factors which influence the overall performance of the economic system. Topics include supply-demand analysis, national income determination models, fiscal and monetary policy, money, financial institutions, the federal reserve system, unemployment, poverty, international trade, economic growth, inflation, and environmental deterioration. The links between economic problems, theory, and public policy are emphasized. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-196**

#### **Sociology, Introduction to**

**Credits: 3.00**

This course examines interpersonal relationships of humans and groups and the consequent structure of society. It details the various social processes and concepts which shape human behavior, analyzing such phenomena as organizations, deviance, race and ethnic relations, population, urbanization, social change, and social movements. Religion, education, and the family are studied. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-198**

#### **Psychology, Introduction to**

**Credits: 3.00**

This course introduces students to some of the major theories and topics of psychology, including the physiological basis of behavior, personality and learning theories, memory, states of consciousness, stress, research methods, intelligence, human development, psychopathology, and social behavior. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro, 851-757 - College Writing Lab or 831-107 - College Reading and Writing 1 or achieve the required placement test score

### **809-201**

#### **Macroeconomics**

**Credits: 3.00**

Macroeconomics is an introductory course. Basic social choices regarding economic systems, basic economic aggregates, fiscal policy, the banking system, monetary policy, and international trade are the principle topics



discussed in the course. Balance is drawn between theory, analysis, and a critique of the institutions that characterize modern mixed-capitalist economies. Conflicting social goals, economic constraints, and environmental concerns provide the framework through which macroeconomy is analyzed. PREREQUISITES: Course 838-105 - Reading & Study Skills, Intro or achieve the required placement test score

### **809-981**

#### **Humanities Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Humanities credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **809-982**

#### **Humanities Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Humanities credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **809-983**

#### **Humanities Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Humanities credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **809-984**

#### **Humanities Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Humanities credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

### **809-985**

#### **Social/Behavioral Science Gen Ed Credit**

**Credits: 3.00**

This course is used to award up to 12 Social/Behavioral Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**809-986****Social/Behavioral Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Social/Behavioral Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**809-987****Social/Behavioral Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Social/Behavioral Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**809-988****Social/Behavioral Science Gen Ed Credit****Credits: 3.00**

This course is used to award up to 12 Social/Behavioral Science credits to students transferring to Gateway. This credit can be used to fulfill program requirements in the AA and AS programs. It can only be used to fulfill elective requirements in other programs and cannot be used as a substitute for any other course.

**809-991****Social Science General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 809 area.

**809-992****Social Science General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 809 area.

**809-993****Social Science General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 809 area.

**809-994****Social Science General Education Credit****Credits: 3.00**

This course is used to award up to 6 credits to students transferring to Gateway with a previous Associates degree or higher. This credit is then substituted for general education coursework in the 809 area.

**809-999****Social Science Elective Credit****Credits: 3.00**

This course is used to award up to 12 credits to students transferring to Gateway without a previous Associates degree or higher. This credit can only be used to fulfill program elective requirements and cannot be used as a substitute for any other course.

**831-103****College Writing, Intro****Credits: 3.00**

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. PREREQUISITES: Course 851-769 or 851-756 - Foundations of Writing with a minimum grade of C or TR or achieve the required placement test score

**831-107****College Reading and Writing 1****Credits: 5.00**

In this course, students examine the relationship between writer, reader, text, and purpose. Students apply reading comprehension strategies as they use a text's features and content to determine the writer's message and purpose. Students apply writing conventions as they analyze their purpose for writing and design texts with features and content that makes their ideas clear to the reader. Upon completion of this course, students will be able to explain the ideas expressed in readings, and they will be able to express their own ideas in written texts. PREREQUISITES: Meet placement test exams for Reading and Writing

**834-109****Pre-Algebra****Credits: 3.00**

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra related courses. PREREQUISITES: Course 854-768 - Foundations of Prealgebra or 854-760 - Mathematics/Pre Technical with a minimum grade of C or TR or achieve the required placement test score

**834-110**

## **Elementary Algebra with Applications**

**Credits: 3.00**

This course offers traditional algebra topics with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include linear equations, exponents, polynomials, rational expressions, and roots and radicals. Successful completion of this course prepares learners to succeed in technical mathematics courses. PREREQUISITES: Course 834-109 - Pre-Algebra with minimum grade C or achieve the required placement test score

**835-104**

## **College Success**

**Credits: 2.00**

This course provides learners with strategies to develop skills for success in college. Learners will apply self management techniques, explore resource management strategies, and learn about ways to improve personal effectiveness.

**836-133**

## **Prep for Basic Chemistry**

**Credits: 2.00**

Introduces basic principles of chemistry including the properties of matter, atomic structure, and the classification of chemical reactions. Students learn to characterize solutions, acids, and bases, and differentiate between elements and compounds.

**838-105**

## **Reading & Study Skills, Intro**

**Credits: 3.00**

This course provides learners with opportunities to develop study skills and expand reading skills including comprehension, fluency, and vocabulary skills. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources. PREREQUISITES: Course 858-760 or achieve the required placement test score

**851-756**

## **Foundations of Writing**

**Credits: 1.00**

In this course, students will develop the writing skills needed in Intro to College Writing. Students will learn to structure effective sentences and compose unified, coherent paragraphs using the writing process. PREREQUISITES: Course 851-760 or achieve the required placement test score

**851-757**

## **College Writing Lab**

**Credits: 2.00**

In this developmental course, students build foundational skills that support success in their co-requisite English Composition I class. They practice academic writing skills such as using paragraphs to organize ideas, writing with sources, and adjusting style and tone to audience and purpose. Upon completion of the course, students will be able to use resources and metacognitive strategies to monitor and assess their own writing and learning throughout the writing process. PREREQUISITES: Complete course 851-769 or 851-756 - Foundations of Writing with a minimum grade of C or TR or achieve the required placement score

**851-760A****Communications Skills/Pre Technical 1CR****Credits: 1.00****851-761****Pre-Tech Vocational Communications****Credits: 2.00**

In this class, you will learn to use English to achieve academically in Gateway vocational programs. Advanced ESL students will learn to: use English to interact in the college classroom, provide subject matter information in spoken and written form, and use learning strategies to better understand academic knowledge taught at Gateway vocational classrooms. Your English language skills will grow as you gain the self-confidence to succeed in college courses.

**851-764****Communication Skills Review****Credits: 1.00****854-760****Mathematics/Pre Technical****Credits: 2.00**

Pre-Technical Mathematics is a course designed to enable students to improve and enhance their mathematical skills in order to deal more effectively with mathematics in a future program. Material to be covered includes basic operations with fractions, decimals, and percents. Also included will be work with pre-geometry (measurement involving perimeter, circumference, area and volume). PREREQUISITES: Course 854-750 - Mathematics 200 with a minimum grade of C or TR or achieve the required placement test score

**854-761****Algebra/Pre Technical****Credits: 2.00**

A basic algebra course which covers algebraic expressions, polynomials, factoring, operations with integers, solving equations, and word problems. PREREQUISITES: Course 854-760 - Mathematics/Pre Technical with a minimum grade of C or TR or achieve the required placement test score

**854-763****Mathematics Review****Credits: 1.00****854-765****Mathematics Review for the Sciences****Credits: 1.00****854-766****Algebra Review****Credits: 1.00****854-769****Algebra Pre-College****Credits: 2.00**

Pre College Algebra is a beginning and/or review course which prepares the student for college level mathematics. The course covers basic mathematical operations applied to signed numbers and algebraic functions and also includes operations with polynomials. Factoring, linear and quadratic equations, formulas, and formula manipulation are also included. PREREQUISITES: Course 854-761 - Algebra/Pre Technical with a minimum grade of C or TR or achieve the required placement test score

**856-760****Science/PreTechnical****Credits: 2.00****856-760A****Science/Pretechnical Review- Animal Biology****Credits: 1.00**

This course is a review of basic scientific concepts and scientific method in the areas of animal biology, to prepare students for postsecondary science courses.

**856-760B****Science/Pretechnical Review- Plant Biology****Credits: 1.00**

This course is a review of basic scientific concepts and scientific method in the field of plant biology, to prepare students for postsecondary science courses.

**861-131****Beginning Reading and Vocabulary**

**Credits: 4.00**

In this course, students will use beginning reading strategies, such as activating prior knowledge, pre-learning vocabulary, skimming and scanning, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will explain beginning graphs, tables and diagrams. Students will increase beginning vocabulary, develop word comprehension strategies and use multimedia resources, such as dictionaries and glossaries. Upon completion of the course, students will be able to read and summarize short beginning academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use basic reading and vocabulary strategies, along with memory techniques, to study and prepare for exams.

**861-132****Beginning Grammar and Writing****Credits: 4.00**

In this course, students will learn to use several basic sentence structures to compose paragraphs using the standard American rhetorical style. Students will acquire beginning grammar, punctuation and spelling skills to write for some academic and professional settings. Upon completion of the course, students will be able to write single paragraphs using the writing process. They will edit their writing, and produce grammatically correct sentences, combined into well-structured paragraphs. They will demonstrate knowledge of some standard punctuation and spelling rules. Students will be able to write beginning paragraphs both in and out of class.

**861-133****Beginning Speaking / Pronunciation****Credits: 4.00**

In this course, students will learn and practice conversational skills with partners, in small groups, and will begin to speak in front of the class. Students will acquire skills to give short academic presentations. Students will develop beginning level pronunciation knowledge, awareness and skills for clear communication. Students will clarify understanding using beginning communication strategies. They will ask and answer questions about themselves and their opinions. Upon completion of the course, students will be able to speak clearly with one or more conversational partners in some academic and professional settings. They will be able to prepare and deliver a beginning level presentation.

**861-134****Beginning Listening and Note Taking****Credits: 4.00**

In this course, students will learn and practice beginning active listening skills with a partner, in a small group and in front of the class. Students will distinguish elements of beginning communication situations. Students will acquire beginning skills to listen and respond in real time with some prior knowledge and preparation. Students will use a variety of note-taking techniques to practice basic organization and main points in listening comprehension. They will demonstrate beginning listening comprehension by creating graphic formats relevant to lecture topics. Upon completion of the course, students will be able to listen and demonstrate beginning comprehension of a conversation with one or more partners and in front of the class. Students will

be able to listen and respond to multimedia presentations for beginning academic and professional situations. Students will restate understanding orally and in writing and clarify comprehension gaps.

### **861-135**

#### **Beginning American College Culture**

**Credits: 4.00**

In this course, students will integrate their beginning skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire basic knowledge of the American College Culture and improve study skills. They will explore beginning higher education vocabulary and college student roles. They will be introduced to American societal rules and perceptions about personal responsibility, especially in the higher education context. Students will interact with the American College Culture in real time in person. Upon completion of the course, students will be able to successfully navigate college interactions in person. With preparation and support, students will be able to basic ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate beginning personal effectiveness in the American College Culture through the use of several study techniques for learning, memory and test preparation.

### **861-141**

#### **Intermediate Reading/Vocabulary**

**Credits: 4.00**

In this course, students will use reading strategies, such as skimming and scanning, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will acquire skills to draw inferences and conclusions, and to distinguish fact from opinion. Students will interpret graphs, tables and diagrams. Students will increase vocabulary, develop word comprehension strategies and use multimedia resources, such as dictionaries and glossaries, independently. Upon completion of the course, students will be able to read and summarize academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use reading and vocabulary strategies, along with memory techniques, to study and prepare for exams.

### **861-142**

#### **Intermediate Grammar and Writing**

**Credits: 4.00**

In this course, students will learn to use a variety of effective sentence structures to compose unified, coherent paragraphs using the standard American rhetorical style and will write multi-paragraph documents. Students will acquire intermediate grammar, punctuation and spelling skills to write clearly and effectively in academic or professional settings. Students will be introduced to American academic standards of intellectual property. Upon completion of the course, students will be able to write multiple drafts using the writing process, edit writing, and produce grammatically correct sentences, well-structured paragraphs and 5-paragraph essays utilizing standard punctuation and spelling rules. Students will be able to write paragraphs and essays both in and out of class. Students will be able to define American concepts of intellectual property, including citations, and plagiarism.

### **861-143**



## **Intermediate Speak/Pronunciation**

**Credits: 4.00**

In this course, students will learn and practice conversational skills with a partner, in a small group and will speak in front of the class. Students will acquire skills to speak extemporaneously and with preparation, including multimedia presentation tools. Students will develop intermediate level pronunciation knowledge, awareness and skills for clear communication. Expanding idiomatic language, students will develop paraphrasing techniques and the ability to express both facts and opinions. They will explore speaking strategies that show awareness of culture and bias. Upon completion of the course, students will be able to speak clearly and confidently with one or more conversational partners in academic and professional settings. they will be able to speak extemporaneously and prepare and give an intermediate level presentation.

**861-144**

## **Intermediate Listen/Note-Taking**

**Credits: 4.00**

In this course, students will learn and practice active listening skills with a partner, in a small group and in front of the class. Students will analyze elements of communication situations, including nonverbals, gender and cultural differences. Students will acquire skills to listen and respond in real time with and without prior knowledge and preparation. Students will develop a variety of note-taking techniques to increase speed and accuracy in listening comprehension. They will demonstrate listening comprehension by paraphrasing in speaking and writing. Upon completion of the course, students will be able to listen and demonstrate comprehension of a conversation with one or more partners and in front of the class. Students will be able to listen and respond to multimedia presentations for academic and professional situations. Students will be able to distinguish between facts and opinions and interpret nonverbal communication and body language.

**861-145**

## **Intermediate American College Culture**

**Credits: 4.00**

In this course, students will integrate their skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire knowledge of the American College Culture and improve study skills. They will explore higher education vocabulary and college student roles. They will learn American societal rules and perceptions about personal responsibility, dependence, independence, interdependence, passivity, aggression and assertiveness. Students will interact with the American College Culture in realtime in person, by phone and online. Students will be able to ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate personal effectiveness in the American College Culture through the use of a variety of study techniques for learning, memory and test preparation.

**861-151**

## **Advanced Reading and Vocabulary**

**Credits: 4.00**

In this course, students will use advanced reading strategies, such as connecting prior knowledge and context, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will make inferences and conclusions, and distinguish fact from opinion. Students will interpret graphs, tables and diagrams. Students will increase vocabulary, use word comprehension strategies and multimedia resources, such as dictionaries and glossaries, independently. Upon completion of the course, students will be able to read and summarize academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use advanced reading and vocabulary strategies along with memory techniques to student and prepare for exams.

### **861-152**

#### **Advanced Grammar and Writing**

**Credits: 4.00**

In this course, students will learn to use a variety of effective sentence structures to compose unified, coherent paragraphs using the standard American rhetorical style and will write multi-paragraph documents and essays. Students will acquire advanced grammar, punctuation and spelling skills to write clearly and effectively in academic or professional settings. Students will practice American academic standards of intellectual property. Upon completion of the course, students will be able to write multiple drafts using the writing process, edit writing, and produce grammatically correct sentences, well-structure paragraphs and 5-paragraph essays utilizing standard punctuation and spelling rules. Students will be able to write paragraphs and essays both in and out of class. Students will be able to define American concepts of intellectual property, including citations and plagiarism.

### **861-153**

#### **Advanced Speaking and Pronunciation**

**Credits: 4.00**

In this course, students will learn and practice advanced conversational skills with partners, in small groups, and will speak in front of the class. Students will acquire skills to speak extemporaneously and with preparation, including using multimedia presentation tools. Students will develop advanced level pronunciation knowledge, awareness and skills for clear communication. Expanding idiomatic language, students will develop paraphrasing techniques and the ability to express both facts and opinions. They will explore speaking strategies that show awareness of culture and bias. Upon completion of the course, students will be able to speak clearly and confidently with one or more conversational partners in academic and professional settings. They will be able to speak extemporaneously and prepare and give an advanced level presentation.

### **861-155**

#### **Advanced American College Culture**

**Credits: 4.00**

In this course, students will integrate their advanced skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire knowledge of the American college culture and improve study skills. They will explore higher education vocabulary and college student roles. They will learn American societal rules and perceptions about personal responsibility, dependence, independence, interdependence, passivity aggression and

assertiveness. Students will interact independently with the American college culture in real time in person, by phone and online. Upon completion of the course, students will be able to successfully navigate college interactions in person, by phone and online. Students will be able to ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate personal effectiveness in the American college culture through the use of a variety of study techniques for learning, memory and test preparation.

### **863-110**

#### **Intensive English Program Support**

**Credits: 3.00**

This course provides support to students who are enrolled in the Intensive English Program (IEP). Students will enhance their academic skills needed to complete the IEP program successfully. Through their participation in this course, students develop skills they will use in their further IEP study.

### **863-131**

#### **Beginning Reading and Vocabulary**

**Credits: 4.00**

In this course, students will use beginning reading strategies, such as activating prior knowledge, pre-learning vocabulary, skimming and scanning, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will explain beginning graphs, tables and diagrams. Students will increase beginning vocabulary, develop word comprehension strategies and use multimedia resources, such as dictionaries and glossaries. Upon completion of the course, students will be able to read and summarize short beginning academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use basic reading and vocabulary strategies, along with memory techniques, to study and prepare for exams.

### **863-132**

#### **Beginning Grammar and Writing**

**Credits: 4.00**

In this course, students will learn to use several basic sentence structures to compose paragraphs using the standard American rhetorical style. Students will acquire beginning grammar, punctuation and spelling skills to write for some academic and professional settings. Upon completion of the course, students will be able to write single paragraphs using the writing process. They will edit their writing, and produce grammatically correct sentences, combined into well-structured paragraphs. They will demonstrate knowledge of some standard punctuation and spelling rules. Students will be able to write beginning paragraphs both in and out of class.

### **863-133**

#### **Beginning Speaking / Pronunciation**

**Credits: 4.00**

In this course, students will learn and practice conversational skills with partners, in small groups, and will begin to speak in front of the class. Students will acquire skills to give short academic presentations. Students will develop beginning level pronunciation knowledge, awareness and skills for clear communication. Students will clarify understanding using beginning communication strategies. They will ask and answer questions about themselves and their opinions. Upon completion of the course, students will be able to speak clearly with one or more conversational partners in some academic and professional settings. They will be able to prepare and deliver a beginning level presentation.

### **863-134**

#### **Beginning Listening and Note Taking**

**Credits: 4.00**

In this course, students will learn and practice beginning active listening skills with a partner, in a small group and in front of the class. Students will distinguish elements of beginning communication situations. Students will acquire beginning skills to listen and respond in real time with some prior knowledge and preparation. Students will use a variety of note-taking techniques to practice basic organization and main points in listening comprehension. They will demonstrate beginning listening comprehension by creating graphic formats relevant to lecture topics. Upon completion of the course, students will be able to listen and demonstrate beginning comprehension of a conversation with one or more partners and in front of the class. Students will be able to listen and respond to multimedia presentations for beginning academic and professional situations. Students will restate understanding orally and in writing and clarify comprehension gaps.

### **863-135**

#### **Beginning American College Culture**

**Credits: 4.00**

In this course, students will integrate their beginning skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire basic knowledge of the American College Culture and improve study skills. They will explore beginning higher education vocabulary and college student roles. They will be introduced to American societal rules and perceptions about personal responsibility, especially in the higher education context. Students will interact with the American College Culture in real time in person. Upon completion of the course, students will be able to successfully navigate college interactions in person. With preparation and support, students will be able to basic ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate beginning personal effectiveness in the American College Culture through the use of several study techniques for learning, memory and test preparation.

### **863-141**

#### **Intermediate Reading/Vocabulary**

**Credits: 4.00**

In this course, students will use reading strategies, such as skimming and scanning, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will acquire skills to draw inferences and conclusions, and to distinguish fact from opinion. Students will interpret graphs, tables and diagrams. Students

will increase vocabulary, develop word comprehension strategies and use multimedia resources, such as dictionaries and glossaries, independently. Upon completion of the course, students will be able to read and summarize academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use reading and vocabulary strategies, along with memory techniques, to study and prepare for exams.

### **863-142**

#### **Intermediate Grammar and Writing**

**Credits: 4.00**

In this course, students will learn to use a variety of effective sentence structures to compose unified, coherent paragraphs using the standard American rhetorical style and will write multi-paragraph documents. Students will acquire intermediate grammar, punctuation and spelling skills to write clearly and effectively in academic or professional settings. Students will be introduced to American academic standards of intellectual property. Upon completion of the course, students will be able to write multiple drafts using the writing process, edit writing, and produce grammatically correct sentences, well-structured paragraphs and 5-paragraph essays utilizing standard punctuation and spelling rules. Students will be able to write paragraphs and essays both in and out of class. Students will be able to define American concepts of intellectual property, including citations, and plagiarism.

### **863-143**

#### **Intermediate Speak/Pronunciation**

**Credits: 4.00**

In this course, students will learn and practice conversational skills with a partner, in a small group and will speak in front of the class. Students will acquire skills to speak extemporaneously and with preparation, including multimedia presentation tools. Students will develop intermediate level pronunciation knowledge, awareness and skills for clear communication. Expanding idiomatic language, students will develop paraphrasing techniques and the ability to express both facts and opinions. They will explore speaking strategies that show awareness of culture and bias. Upon completion of the course, students will be able to speak clearly and confidently with one or more conversational partners in academic and professional settings. They will be able to speak extemporaneously and prepare and give an intermediate level presentation.

### **863-144**

#### **Intermediate Listen/Note-Taking**

**Credits: 4.00**

In this course, students will learn and practice active listening skills with a partner, in a small group and in front of the class. Students will analyze elements of communication situations, including nonverbals, gender and cultural differences. Students will acquire skills to listen and respond in real time with and without prior knowledge and preparation. Students will develop a variety of note-taking techniques to increase speed and accuracy in listening comprehension. They will demonstrate listening comprehension by paraphrasing in speaking and writing. Upon completion of the course, students will be able to listen and demonstrate comprehension of a conversation with one or more partners and in front of the class. Students will be able to listen and respond to multimedia presentations for academic and professional situations. Students will be able to distinguish between facts and opinions and interpret nonverbal communication and body language.

## **863-145**

### **Intermediate American College Culture**

**Credits: 4.00**

In this course, students will integrate their skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire knowledge of the American College Culture and improve study skills. They will explore higher education vocabulary and college student roles. They will learn American societal rules and perceptions about personal responsibility, dependence, independence, interdependence, passivity, aggression and assertiveness. Students will interact with the American College Culture in realtime in person, by phone and online. Students will be able to ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate personal effectiveness in the American College Culture through the use of a variety of study techniques for learning, memory and test preparation.

## **863-151**

### **Advanced Reading and Vocabulary**

**Credits: 4.00**

In this course, students will use advanced reading strategies, such as connecting prior knowledge and context, to increase reading comprehension and speed in academic and professional settings. Students will examine both oral and silent reading strategies, along with memory training techniques. Students will make inferences and conclusions, and distinguish fact from opinion. Students will interpret graphs, tables and diagrams. Students will increase vocabulary, use word comprehension strategies and multimedia resources, such as dictionaries and glossaries, independently. Upon completion of the course, students will be able to read and summarize academic and nonfiction texts by paraphrasing orally and in writing. Students will be able to use advanced reading and vocabulary strategies along with memory techniques to student and prepare for exams.

## **863-152**

### **Advanced Grammar and Writing**

**Credits: 4.00**

In this course, students will learn to use a variety of effective sentence structures to compose unified, coherent paragraphs using the standard American rhetorical style and will write multi-paragraph documents and essays. Students will acquire advanced grammar, punctuation and spelling skills to write clearly and effectively in academic or professional settings. Students will practice American academic standards of intellectual property. Upon completion of the course, students will be able to write multiple drafts using the writing process, edit writing, and produce grammatically correct sentences, well-structure paragraphs and 5-paragraph essays utilizing standard punctuation and spelling rules. Students will be able to write paragraphs and essays both in and out of class. Students will be able to define American concepts of intellectual property, including citations and plagiarism.

## **863-153**

### **Advanced Speaking and Pronunciation**

**Credits: 4.00**

In this course, students will learn and practice advanced conversational skills with partners, in small groups, and will speak in front of the class. Students will acquire skills to speak extemporaneously and with preparation, including using multimedia presentation tools. Students will develop advanced level pronunciation knowledge, awareness and skills for clear communication. Expanding idiomatic language, students will develop paraphrasing techniques and the ability to express both facts and opinions. They will explore speaking strategies that show awareness of culture and bias. Upon completion of the course, students will be able to speak clearly and confidently with one or more conversational partners in academic and professional settings. They will be able to speak extemporaneously and prepare and give an advanced level presentation.

### **863-154**

#### **Advanced Listening and Note-Taking**

**Credits: 4.00**

In this course, students will learn and practice advanced active listening skills with a partner, in a small group and in front of the class. Students will analyze elements of communication situations, including nonverbals, gender and cultural differences. Students will acquire skills to listen and respond in real time with and without prior knowledge and preparation. Students will develop a variety of note-taking techniques to increase speed and accuracy in listening comprehension. They will demonstrate listening comprehension by paraphrasing in speaking and writing. Upon completion of the course, students will be able to listen and demonstrate comprehension of a conversation with one or more partners and in front of the class. Students will be able to listen and respond to multimedia presentations for academic and professional situations. Students will be able to distinguish between facts and opinions and interpret communication and body language.

### **863-155**

#### **Advanced American College Culture**

**Credits: 4.00**

In this course, students will integrate their advanced skills in reading, vocabulary, writing, grammar, speaking, and listening to acquire knowledge of the American college culture and improve study skills. They will explore higher education vocabulary and college student roles. They will learn American societal rules and perceptions about personal responsibility, dependence, independence, interdependence, passivity aggression and assertiveness. Students will interact independently with the American college culture in real time in person, by phone and online. Upon completion of the course, students will be able to successfully navigate college interactions in person, by phone and online. Students will be able to ask questions, seek answers, summarize interaction outcomes and formulate follow up questions and actions. Students will also be able to demonstrate personal effectiveness in the American college culture through the use of a variety of study techniques for learning, memory and test preparation.

### **890-100**

#### **College Success Skills**

**Credits: 1.00**

Designed to promote student academic success. Through a variety of awareness activities, students are introduced to study skills, time management techniques, health-related and relationship-building skills, as well as to programs, services, policies and procedures offered by Gateway.

### **890-103**

#### **Employability Skills**

**Credits: 2.00**

After completion of course, students will demonstrate positive personal image, exhibit positive work attitude, practice good work habits and ethical behavior, accept responsibility, and cooperate with others in the workplace.

### **890-105**

#### **Serving to Learn Locally**

**Credits: 2.00**

Students will collaborate with a community partner to design and perform a service project to address a community need. Students will gain an awareness of themselves and their community and develop an understanding of community diversity and civic engagement.

### **890-106**

#### **Serving to Learn Globally**

**Credits: 2.00**

Through immersion in a global community, students will collaborate to identify a need, plan a service, perform the service and/or evaluate the result. They will apply principles of professionalism, team work, and critical thinking, as well as their chosen career's technical knowledge, attitude and skill. Through reflection and dissemination, students will integrate an increased sensitivity to the diversity of the community, global connectivity, civic engagement and their own professional career path.

### **890-154**

#### **Alternative Learning Portfolio**

**Credits: 3.00**

Learner will document proficiency in relevant knowledge and skills to substitute for designated course requirement from sources such as educational experience, work experience, and other personal activities. Course may be substituted for a program requirement at the recommendation of Disability Support Services faculty and approval of the dean and the provost's office.

### **890-155**

#### **Gateway to Success**

**Credits: 1.00**



In this course, students explore the Gateway Technical College community. They examine college resources and services, investigate skills that lead to academic success, and identify strategies for achieving educational and personal goals.

### **890-156**

#### **Personal/Professional Success**

**Credits: 1.00**

Learners in this interactive course will develop practical strategies for success to enhance personal and professional effectiveness. Topics will include problem solving, interpersonal skills, self-advocacy, adapting to workplace culture, personal responsibility, and managing transitions. This course can be counted as an elective credit towards your degree requirements at Gateway.

### **890-205**

#### **Gateway to Engineering**

**Credits: 2.00**

In this course, students will ascertain how to be successful in an undergraduate engineering program. They will explore problem solving strategies and career paths for a variety of engineering specialties. Upon completion of this course, students will be prepared to choose an engineering specialty and select elective engineering courses relevant to their engineering career goals.

### **890-299**

#### **Gateway to Research**

**Credits: 1.00**

In this course, students engage in an independent study project or research experience within the discipline of a faculty mentor. They select a topic and conduct literature research. Students may implement a qualitative or quantitative methodology. Upon completion of the course, students will be able to explain the research process and discuss their findings.

### **890-991**

#### **Elective Credit Associate Degree**

**Credits: 1.00**

This course is used to award up to 12 Elective credits to students transferring to Gateway or receiving Credit for Prior Learning. This credit can only be used to fulfill elective requirements and cannot be used as a substitute for any other course requirements.

### **890-992**

#### **Elective Credit Associate Degree**

**Credits: 1.00**

This course is used to award up to 12 Elective credits to students transferring to Gateway or receiving Credit for Prior Learning. This credit can only be used to fulfill elective requirements and cannot be used as a substitute for any other course requirements.

**890-993**

**Elective Credit Associate Degree**

**Credits: 1.00**

This course is used to award up to 12 Elective credits to students transferring to Gateway or receiving Credit for Prior Learning. This credit can only be used to fulfill elective requirements and cannot be used as a substitute for any other course requirements.

## PRESIDENT

### Ritu Raju

President/CEO  
BS, University Houston  
MA, Sam Houston State University  
PhD., Texas Tech University

### Elizabeth Allen

Executive Assistant, President's Office &  
Board of Trustees  
AAS, Gateway Technical College  
BA, Carthage College

### David Elliott

Administrative Assistant, President's Office  
BA, Ohio State University

## BUSINESS & WORKFORCE SOLUTIONS (BWS)

### Mark Kappes

Dean, Business & Workforce Solutions  
MSA, Central Michigan University

### Michelle Miller

Administrative Assistance, VP of BWS  
AAS, Gateway Technical College

### Katie Dembowski

Director, Account Management  
BS, University Wisconsin-Oshkosh

### Jaileen Diaz

Account Manager, Business & Workforce  
Solutions  
BA, Marquette University

### Jamie Rauth

Manager Business & Community Outreach  
BA, Northern Illinois University

## COMMUNITY & GOVERNMENT RELATIONS

### Stephanie Sklba

Vice President, Community & Government  
Relations  
BA, University Wisconsin-Parkside  
MA, Jones International University

### Lee Colony

Manager, Communications & Media  
Relations  
BS, University Wisconsin-Oshkosh

### Abbie M. Ford

Manager, Community Relations &  
Communications  
BA, University Wisconsin-Whitewater

### Kallie Johnson

Program Manager, Center for Sustainable  
Living  
BS, Montana State University

### Pamela Kramer

Project Manager  
BA, Concordia University

### Kristin Gunia

Director, Marketing & Communications  
BS, Iowa State University  
MBA, University Wisconsin, Milwaukee

### Amber Stoian

Administrative Assistant to the Vice  
President, Community & Government  
Relations  
BS, University Wisconsin-Parkside

## FACILITIES & SECURITY

### Christopher Burton

Director, Safety & Security

### John Thielen

Director, Facilities  
AAS, Gateway Technical College  
BA, University Minnesota

### William C. Anderson

Manager, Facilities (Racine)  
BA, University Wisconsin-Parkside

### Scott Moody

Manager, Facilities (Elkhorn/Burlington)

### Ricky Muhammad

Manager, Facilities (Kenosha)  
BA, Carthage College

## FINANCE

### Sharon Johnson

Vice President, Administration and CFO  
BA, University South Carolina

### Ericka Bernhardt

Purchasing Agent  
BA, Ottawa University

### Rhonda Cerminara

Budget & Procurement Analyst  
AAS, Gateway Technical College

### Susan Debe

Assistant to the Senior Vice President,  
Operations/Risk Management Coordinator

### Anandhi Krishnan

Controller

### Linda Pham

Grant Accounting Analyst  
AA, Gateway Technical College

### Jane Nikolai

Manager, Accounting  
BA, University Wisconsin-Parkside

### Jason Nygard

Director, Budgets & Purchasing  
MA, Marquette University

### Anandhi Krishnan

Controller

## FOUNDATION

### Jennifer Charpentier

Executive Director, Foundation  
BA, Carleton College  
MA, PhD, University Minnesota

## TALENT & CULTURE

### Jacqueline Morris

Vice President, Talent and Culture  
BS, University Wisconsin-Parkside  
MS, Cardinal Stritch University

### Paul Aceto

Administrative Assistant, AAS, VP of T&C  
Technical Diploma, Gateway Technical  
College

### Selina Bohn

Director, Talent and Culture  
AA, College of Lake County  
BS, MBA, University Wisconsin-Parkside

### Elizabeth Guerrero

Talent Acquisition Manager  
MS, Kaplan University  
BA, University Wisconsin-Parkside

### Heather Halbach

Manager, Benefits  
BA, Lakeland University

### Alan Jelinek

Manager, Payroll  
AAS, Gateway Technical College  
BS, Cardinal Stritch

### Magan Perez

Director, Employee Engagement  
AAS, Gateway Technical College  
BS, University Wisconsin-Stout

## INSTITUTIONAL EFFECTIVENESS

### Anne Whynott

Associate Vice President, College  
Excellence  
BA, MPA, University Wisconsin-Parkside

### Rachel Westrum

Grants Administrator  
BA, University Wisconsin-La Crosse  
MA, University Wisconsin-Milwaukee

### Michelle Borckardt

Manager, Research Services  
BA, Baylor University

### Dineshi Burchi

Grants Administrator  
BA, University Wisconsin-Parkside

### Nancy Chapko

Instructional Designer/Student Learning  
Coordinator  
BS, Carroll College  
MS, EdS University Wisconsin-Stout  
EdD, University of Wisconsin - Stout

### Margaret Hunter

Learning Technologist  
BA, American University  
MS, South Dakota State University  
EdD, Fielding Graduate University

### Christopher Neff

Title III Project Manager  
AAS, Waukesha County Technical College  
BS, MS, EdD, University Wisconsin-Stout

### Denise Schneider

Manager, Employee Learning  
BS, Elmhurst College

### Jaime Spaciel

Director, Academic Excellence  
MSE, MS, University Wisconsin-Platteville  
BS, Carroll University

**Robbin Vester**

Manager, Organizational Excellence  
BS, Cardinal Stritch University

## LEARNING INNOVATION DIVISION

**Jeffrey Robshaw**

CIO/Vice President, Learning Innovation  
BA, St. Norbert College  
MS, Illinois State University

**Marvin Campbell**

Director, End User Computing & Distance  
Learning Support  
AAS, Gateway Technical College

**Eric Doherty**

Manager, End Point Technology  
AAS, Gateway Technical College  
BS, University Wisconsin-Stout

**Derrick Domes**

Director, Information Technology  
AAS, Gateway Technical College  
BS, University Wisconsin-Stout

**Jennifer Olson**

Administrative Assistant, LID  
BS, University Wisconsin-Parkside

**Alan Pinkerton**

Director, Information Systems  
AAS, Gateway Technical College

**Lorie Wiechers**

Manager, IT Systems & Infrastructure

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