



 **LAKESHORE**
COLLEGE

2025–2026
CATALOG

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Mission

Transform individuals and strengthen our communities
through innovative and accessible learning

Vision

The community's driver for individual, social, cultural, and economic vitality



Accreditation

Lakeshore College is accredited by The Higher Learning Commission
230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411
hlcommission.org; 312.263.0456.

STUDENT RESOURCES

ACADEMIC SUPPORT & TUTORING

Lakeshore College's Academic Support & Tutoring Services provides free assistance for a variety of classes and programs. Students may access support through drop-in hours, structured labs, study groups, and individualized tutoring. Support is provided in the areas of General Education, such as Reading, Math, English, Social Science, Science, Technology, and Study Skills. Most supports are available virtually, in person, or over the phone.

Technology Support

Student technology support provides one-on-one computer help for a variety of campus technologies and software, including Blackboard, MYLAKESHORE, Microsoft Office 365 (Outlook/email, Word, Excel, and PowerPoint), computer management, and more. Students may access the [Quick Bytes](#) webpage for self-help videos for commonly used applications and resources essential to student success.

Academic Support

Academic Support is a resource for all students at Lakeshore who want to improve their academic skills, time management, study tips, test anxiety strategies, and more. Every student can benefit from building their skills to help them achieve greater academic success. Students interested in learning more about academic coaching or who would like to get started with a coach should connect with a member of the Academic Support & Tutoring team today.

Peer Tutoring

Academic Support & Tutoring also offers a peer tutoring program in which students are connected with a peer tutor either in person and/or virtually. Peer Tutoring is available for individualized help in technical program classes. The link to request a peer tutor or to become hired as a peer tutor can be found here: [Academic Support and Tutoring – Library at Lakeshore College \(libguides.com\)](#). Please note, a tutor match is not guaranteed, but all efforts are made to find a tutor.

Tutor.com

For students who seek support via online tutoring, Lakeshore has partnered with Tutor.com. Professional tutoring support is available 24/7 and features a team of on-demand expert tutors. Success is not achieved alone; it takes a team and Tutor.com is here to help. Access Tutor.com directly from all courses in Blackboard, located on the left-hand navigation pane, or as a tile in MYLAKESHORE. This service is free to students and can assist in a variety of content areas.

Academic Support & Tutoring contact information: 920.693.1322 or academic.support@lakeshore.edu

ANIMALS ON CAMPUS

Service Animals

In accordance with the Americans with Disabilities Act and sections of the Rehabilitation Act, qualified service animals are permitted on campus when accompanying a person who has a disability with few exceptions as prescribed by law. A service animal is an animal trained to do work or perform tasks for an individual with a disability. If a service animal is removed, Lakeshore will provide an opportunity to participate in the service, program, or activity without having the service animal present.

Emotional Support Animals

An emotional support animal is an animal that is not trained to do work or perform tasks, but whose presence provides emotional support, comfort, or companionship for the person with a disability. Emotional support animals are NOT service animals and are generally not allowed on campus. If an employee with a disability wants to use a non-service animal on campus, they should request an accommodation from Human Resources. If a student with a disability wants to use a non-service animal on campus, they should request an accommodation from Accommodation Services.

Therapy Animals

Although therapy animals are not considered service animals under the ADA, they may be permitted on campus, on a case-by-case basis, for certain events in limited areas. Therapy animals are trained to provide therapeutic contact to improve physical, social, emotional and/or cognitive functioning. For therapy animals to be considered for approval, the animal and handler must be certified by an accredited therapy animal training association and provide proof of liability insurance and required vaccinations. Any employee seeking to use a therapy dog in the course of their job duties must discuss with their respective Vice President and complete the necessary paperwork.

Animals used for Educational Programming

The college permits the presence of animals in public areas (interior and exterior) on campus when the animal is used to support educational programming and training. Such circumstances will be reviewed and approved by leadership on a case-by-case basis.

Removal of Animals from Campus

Animals must always be under the control of the handler. If they are not properly controlled by the handler, if the animal's behavior is aggressive, disruptive, or alters the fundamental nature of a service, or if the animal poses a direct threat to the health or safety of others, the handler will be required to remove the animal from college property immediately.

[Animals on Campus](#) Contact information: 920.693.1120 (711) or nicole.yang@lakeshore.edu.

CAREER SERVICES

Career Services coordinates resources and services that help facilitate student transition from college to work. Multiple learning and networking opportunities are available. These include, employment development seminars, workshops, and consultations, as well as resources on the college website.

Handshake is the Lakeshore and Wisconsin Technical College System's official employment link for Wisconsin technical college students and graduates seeking job openings and internships posted by employers.

Lakeshore provides gently used clothing for professional and personal purposes. Available items vary based on donations. All items are FREE for students.

For more information, email careerservices@lakeshore.edu with all questions and inquiries relating to Career Services.

DENTAL CLINIC

The Lakeshore Community Dental Clinic provides limited dental services for individuals who qualify for free or reduced costs. For more information, contact 920.693.1185 or email dental@lakeshore.edu

Educational Support Services

Accommodation Services

Partners with students to develop plans that ensure equal access to programs, services, and activities at Lakeshore. Students with disabilities are eligible for reasonable accommodations as outlined by the Americans with Disabilities Act and the Rehabilitation Act. Students who are pregnant or parenting a newborn are eligible for reasonable accommodations as outlined by Title IX of the Educational Amendments of 1972. Accommodations are voluntary, confidential, and outcome neutral.

Fostering your Future

Fostering your future provides enhanced support to meet the unique needs of students who are or have been foster youth.

Language Access

Provides tailored assistance to support students adjusting to college courses in English through support that focuses on English skills and course content. Services include: one-on-one and small group study sessions, individualized assistance and resources, text to speech, note-taking, and testing support. Lakeshore also provides limited interpretation for meetings with advisors, Academic Counselors, financial aid, and other services.

Educational Support Services contact information: 920.693.1120 (TTY 711) or educationalsupport@lakeshore.edu

FINANCIAL COACHING

Lakeshore partners with community organizations to provide free financial coaching to students. Coaching sessions assist students with developing customized spending plans and specific financial goals. Students may schedule a coaching session by emailing financial.coach@lakeshore.edu.

LIBRARY SERVICES

[The Lakeshore Library](#), located in the Lakeshore Building's Student Resource Center, provides a learner-centered environment where students, staff, and community members may access information through a variety of educational and technological resources responsive to users' needs.

Physical Resources

Students with an active Lakeshore ID number may borrow library materials such as books, journals, audiovisual resources, course textbooks, test prep materials, and more. Items can be searched via the [library catalog](#). The library also has many course textbooks available for checkout, including print copies of online OER (open educational resource) books. Students may request books, articles, and materials from other libraries, at no cost, through interlibrary loan.

Students are financially responsible for any items checked out to their library account, including items that are not returned, lost, or damaged. Most library materials may be renewed in person,

over the phone at 920.693.1130, by email at library@lakeshore.edu, or on the [library website](#) under “My Account.”

Online Resources

Lakeshore students can access [online resources](#), including eBooks, journals, audiobooks, and videos 24/7 by logging into MYLAKESHORE and selecting the “Library Databases” tile.

Devices & Equipment

Laptops, and electronic devices, including Apple iPads & Microsoft Surfaces, are available to current Lakeshore students enrolled in at least one course and in good financial standing with the College. Borrowers need to present a current Lakeshore Student ID card and may check out one laptop or tablet at a time. Various equipment (power cords, headphones, microphones, web cams, calculators, scanners, flash drives, etc.) is also available. To check availability and see full terms and conditions for equipment checkout, please visit: [Library Libguide](#) > Devices & Equipment.

Study Rooms & Study Booths

Study rooms for quiet study are available with priority given to current Lakeshore students. Check-out period is two hours with the opportunity to renew if no one is waiting for a room.

For more information, contact the Library at 920.693.1130 or email library@lakeshore.edu

MENTAL HEALTH COUNSELING

Personal, individual, and short-term counseling is available to assist eligible students in dealing with concerns which may interfere with class success or personal growth. Lakeshore has partnered with BetterMynd, an online therapy platform, to offer students access to free video-therapy sessions with their diverse network of licensed mental health counselors. Supportive counseling is offered during daytime, evenings, and weekends to aid students with personal issues and enhance their mental and emotional well-being.

To register and get started with a counselor, sign up at: <https://app.bettermynd.com/register>.

For additional questions, email students@bettermynd.com.

ORIENTATION & STUDENT SUCCESS TUTORIAL

Lakeshore College’s Orientation program provides students with information and resources to successfully navigate their college experience and achieve their educational goals. Once students have been admitted to the College, they will have access to a library of online tutorials and videos to assist with logging into their Lakeshore Student account, how to make payment on their tuition bill, completing online coursework, and utilizing a variety of free student resources.

Individual programs may require an additional program orientation session. Each respective division will coordinate and communicate dates, times, and details.

ACADEMIC COUNSELING

Academic Counselors are assigned to students based upon their program and guide students throughout their college experience. They serve as a great starting point for questions and needs. In addition, they:

- Clarify academic and career objectives and ensure appropriate program choice to meet goals.
- Review academic plans/pacing guides and assist in determining appropriate and realistic course sequencing.
- Assist in understanding and updating academic plans/pacing guides due to curriculum and/or course progression changes.
- Proactively support the student's progress and academic performance.
- Serve as a touchpoint for questions and needs and connect the student to appropriate resources.
- Empower students to take ownership of their education and understand program requirements.

Students can schedule an appointment with their Academic Counselor by calling 920.693.1366 or by using the scheduling feature in Navigate.

STUDENT LIFE

Student Life at Lakeshore is viewed as an integral part of the total educational experience. Being involved in activities beyond the classroom is helpful in broadening cultural horizons, creating outlets for self-expression, preparing for the workplace, and having fun. Monies from the supplemental fee contribute to student recognition awards and student organization assistance and support Lakeshore Student Leadership Board activities and services.

Annual Student Awards Celebration

The college recognizes and celebrates students for academic success, student leadership, and service excellence. Faculty and staff nominate students for recognition of their curricular and co-curricular achievements. Award recipients are notified of their selection prior to the event. Students are encouraged to bring family and friends to join in celebrating their achievements.

For information regarding Student Life and Annual Student Awards Celebration, email studentlife.slb@lakeshore.edu.

STUDENTSHARE

Each of Lakeshore's locations offer various food, clothing and/or personal care supports at no cost to students. Generous donations from the Lakeshore Foundation, college and community members make this possible.

For information, email studentshare@lakeshore.edu.

STUDENT LEADERSHIP BOARD (SLB)

The College's Student Leadership Board is comprised of student representatives and organizations whose executive members are selected via an application process set forth by the Lakeshore SLB. The SLB provides students with opportunities to participate in democratic leadership/self-government. It acts as the liaison between the administration, faculty, staff, and students; promotes citizenship/leadership; operates as the students' official voice in the college community; and acquires information for dissemination to the student body. The SLB operates according to a constitution with the assistance of college appointed SLB Staff Advisors. Official meetings are held between September and April and all students are welcome. SLB executive members can participate in statewide student advocacy activities through Wisconsin Student Government.

For additional information, email studentlife.slb@lakeshore.edu.

STUDENT ORGANIZATIONS

Lakeshore's Student Leadership Board (SLB) approves and supports student clubs and associations that are open to all Lakeshore students. Active involvement outside the classroom promotes beneficial learning experiences that further develop and enrich students' interpersonal and professional skills. Student organizations may be formed based on student interest and completion of the Lakeshore SLB approval process.

The following is a list of approved, active student organizations which is subject to change:

- Auto Maintenance Club
- Business Professionals of America (BPA)
- Culinary Club
- Dental Assistant Club
- Information Technology (IT) Club
- InterVarsity Christian Fellowship
- Lakeshore Chapter Student Nurses Association (LCSNA)
- Makers Club
- Medical Assistant Club
- Paralegal Student Association
- Phi Theta Kappa (PTK) Honor Society—Beta Lambda Sigma Chapter
- Professional Agricultural Students (PAS)
- Radiography Club
- Society of Human Resource Management (SHRM) Student Chapter

For detailed information about student organizations, email studentlife.slb@lakeshore.edu.

WISCONSIN TECHNICAL COLLEGE SYSTEM (WTCS) AMBASSADOR PROGRAM

The Wisconsin Technical College System Ambassador Program recognizes and rewards outstanding student achievement and appreciation for technical education. Lakeshore's WTCS Ambassador represents the college and the WTCS at campus, community, and WTCS events, including a training conference for newly selected ambassadors.

The Lakeshore WTCS Ambassador program seeks student applications for the position, and eligible applicants are interviewed by a selection team. The Lakeshore WTCS Ambassador enjoys prestige and yearlong visibility as a champion for technical education.

For information, email studentlife.slb@lakeshore.edu.

TECHNOLOGY HELP DESK

The Technology Help Desk is located on the Cleveland Campus in the Student Resource Center. The Help Desk is available Monday through Friday to help students with technology-related issues. Additionally, for convenience, the Technology Help Desk provides a password reset tool enabling instant password changes. This tool is accessible on the Student Resources page of the Lakeshore website: <https://lakeshore.edu/experience-ltc/student-resources>

For more information, please call 920.693.1767 or email: helpdesk@lakeshore.edu Hours: Monday-Thursday 7 AM – 7:30 PM and Friday 7 AM – 4 PM

For assistance outside of the daily Help Desk hours, please reach out to the support team at BlackBeltHelp. To obtain limited assistance when the internal Help Desk is unavailable, simply dial the same phone number: 920.693.1767, and individuals will be connected with a support member.

TESTING SERVICES

Testing Services administers a variety of tests including the Accuplacer; GED/HSED; keyboarding; Credit for Prior Learning test-out exams for Lakeshore classes; HESI nursing entrance exams; and proctored instructional testing for Lakeshore classes.

Testing Procedures:

- Appointments are required and must be scheduled 24 hours in advance. Proctored instructional testing for Lakeshore classes must be scheduled through Navigate.
- Testers MUST have a photo ID with full name and picture.
- Testing must be completed by closing time. Please plan accordingly.
- Cell phones and electronic devices (including smart watches) are not allowed. Lockers are available.
- Scratch paper and pencils are provided. Calculators will be provided if approved. Personal calculators are not allowed. All items must be returned to the proctor when finished.
- Beverages and snacks are not allowed.
- Testers may not leave for breaks after a test has started.
- Only testers are allowed in testing areas.
- If testing on a computer, no other applications or websites are to be open.
- Testing rooms are under camera surveillance and recording.
- Violations will be reported to the appropriate division and student conduct office.

For more information, contact Testing Services at 920.693.1184 or testing@lakeshore.edu.

TRIO/STUDENT SUPPORT SERVICES

TRIO/Student Support Services helps low income, first generation, and students with disabilities achieve their dreams of higher education. It is federally funded by the U.S. Department of Education.

Goals of the TRIO/Student Support Services:

- Provide support for participants using TRIO/Student Support Services resources to facilitate their academic success.
- Improve GPA, retention, and academic success of participants by providing academic support services, advising, financial education, leadership and career development opportunities.
- Increase the percentage of students who obtain a degree and transfer to a four-year college.

TRIO/Student Support Services contact information: 920.693.1653 or email trio@lakeshore.edu.

GENERAL COLLEGE INFORMATION

ACCIDENTS/FIRST AID/EMERGENCY CARE

All accidents occurring on college property are to be reported immediately to a Lakeshore staff member. Incident report forms are to be completed within 24 hours. To report an accident: https://cm.maxient.com/reportingform.php?LakeshoreTC&layout_id=4.

ADULT EDUCATIONAL AND ENGLISH LANGUAGE LEARNERS PROGRAMMING

Lakeshore offers programs to prepare adults to earn a high school credential, enter a college program, and/or enter employment. Instruction is provided in the areas of reading, writing, math, social studies, science, civics, career and employability education, and English Language Learning (ELL). The course of study is determined through goal setting and working closely with a Academic Counselor and instructors to create an individualized plan of education.

Specific Programming Includes:

- Adult Education is designed for individuals who want to review, learn, or improve academic skills in reading, writing, math, and digital literacy. The curriculum offers students the opportunity to meet personal needs for additional education, training and/or employment.
- GED/HSED programming prepares adult students to earn a high school credential, such as the General Education Development (GED) certificate or the High School Equivalency Diploma (HSED). To earn a GED, students must successfully complete a Career Awareness course and four academic exams:
 - Reasoning through Language Arts
 - Mathematical Reasoning
 - Science
 - Social Studies
- The HSED credential requires successful completion of the four GED exams PLUS the following:
 - Health (exam or coursework)
 - Employability Skills course
- Alternative HSED programming is also available. A competency-based, structured class option allows students to earn the HSED without taking the GED exams. This is for individuals who can, in a classroom setting, demonstrate mastery of skills expected of Wisconsin high school graduates, but who would be unable to demonstrate those competencies in a formal, timed, testing environment. This credentialing opportunity also requires a state-mandated civics test.
- All high school credentialing opportunities also require a state mandated civics test in addition to the above criteria.
- The English Language Learning (ELL) program is designed to provide non-English and limited-English speaking students coursework in Reading, Writing, Listening, and Speaking the English language. Other subjects offered are digital literacy, citizenship exam preparation, and employability classes.
- Career and employability courses are offered to explore interests, skills, and goals for employment. Resume writing, interviewing skills, digital literacy, and other skills to obtain and retain employment are stressed.
- Lakeshore support services are offered; these include:

- Academic Counselors are available to assist with career planning, program enrollment support, and selection. Academic Counselors can also work with students on college admissions steps.
- Student support, such as accommodation services, educational support services, and academic support.

CAFETERIA

The Lakeshore Cafeteria is located on the upper level of the Lakeshore Building, on the Cleveland Campus. Lakeshore's vending service features grab-and-go items including sandwiches and beverages. Vending machines and microwave ovens are available in all buildings.

CHILD CARE CENTER

The Center is designed for children of full- and part-time students at Lakeshore. Parents may register their children, ages two through six years. Please inquire early as spots are limited and fill quickly. Information and [registration forms](#) are available in the Child Care Center. For more information, call 920.693.1243.

COMPUTER LABS

The Student Resource Center contains the largest open computer lab on campus. Computers in the lab contain most software required for Lakeshore courses. A network username and password are required to log on.

EVACUATION DRILLS

Emergency evacuation drills will be conducted periodically during the school year by the Incident Management Team. Anytime the fire alarm is sounded, it should be treated as a real fire. Each classroom has emergency evacuation instructions and routes posted. Students should become familiar with this information to ensure a swift but safe evacuation from the building. All persons are required to leave the building, stand clear of all exits, and remain outside until notified by safety/security personnel that it is safe to re-enter the building.

FITNESS CENTER

The Fitness Center is located on our Cleveland campus, on the lower level of the Lakeshore Building, room L179. The area has a variety of equipment such as treadmills, weight machines, elliptical trainers, stationary bikes, and locker rooms with showers. The Fitness Center is an unsupervised exercise center open to students, current staff and their family members 18 years of age or older, Lakeshore retirees, and Lakeshore District residents. It can be used free of charge when available. Before first use, participants are required to review the Fitness Center policy which includes guidelines, dress code, and a release-of-all-claims form. The policy and form are accessible and can be signed at the Student Success Welcome Center located in the Library at the Cleveland Campus in the Lakeshore building. Fitness Center hours may vary and are listed on the College's website. <https://lakeshore.edu/experience-lakeshore/on-our-campus/fitness-center>

LACTATION/NURSING MOTHERS ROOM

Please see the Student Success Welcome Center for access to a private lactation/nursing mothers room.

LOCKERS

Lakeshore uses LuxerOne smart lockers to securely store and distribute college-related materials. The smart locker system allows students to pick up items and resources from places such as Student Share, the Library, eCampus, and more using a secure code sent by email or text. The lockers are located in the Student Share area in the Lakeshore Building of the Cleveland Campus. Students needing accommodations should contact 920.693.1120 (TTY 711). Lakeshore is not responsible for theft or damage to locker contents.

LOST & FOUND

Lost and found items may be claimed at Student Success Welcome Center upon proper identification by the owner.

LAKESHORE ONLINE BOOKSTORE

The Lakeshore Online Bookstore (eCampus) can be accessed via the Lakeshore Online Bookstore tile in MYLAKESHORE.

Textbooks

The Lakeshore Online Bookstore offers new, used, digital, and rental textbooks. Students must purchase their books online. Books can be ordered for Cleveland campus pick up or home delivery. If delivering to campus, the student will be notified by email and text message when books are ready for pick up at the Lakeshore Library. See the Bookstore page under the Current Students Hub tile in MYLAKESHORE for current policies and pick up hours.

Return Rentals and Sell Back Books

Return your rentals and sell back your books directly to eCampus by logging in to your Lakeshore Online Bookstore account.

PARKING REGULATIONS FOR LAKESHORE CLEVELAND CAMPUS

Regulations:

- Lakeshore assumes no responsibility for vehicles or their contents while parked on campus. The person whose name a vehicle is registered under is responsible for all violations incurred by the registered vehicle.
- The **enforced speed limit** for vehicles operated on campus is **15 miles per hour**.
- All roadways and building approaches are considered lanes. Parking in these areas is prohibited. Parking on lawns, sidewalks, and marked walkways is prohibited.
- The parking lot layout is designed with safety in mind. Follow marked traffic routes through parking lots 6 and 7.
- Bicycle parking racks are available near Ag/Energy (A1), Nierode (N2), Lakeshore (L8) and (L12); and Public Safety (P1) except during winter months. Racks are also available at Sheboygan and Manitowoc campuses.
- Accessible parking is allowed in designated areas by permit only. **Permits are available only through the DMV.**

Enforcement: Parking regulations are enforced under Village of Cleveland Ordinance and the State of Wisconsin Statute.

Penalties: Persons violating posted parking regulations may be required to pay a fine in accordance with the Village of Cleveland or the State of Wisconsin traffic deposit schedule.

Link to Lakeshore College Cleveland Campus map: <https://lakeshore.edu/about/campus-locations-maps-hours>

MYLAKESHORE

MYLAKESHORE is a website that provides centralized access to commonly used applications you may need such as Blackboard, Lakeshore email, MyLTC, Navigate, Password Reset Tool, and Technology Help Desk. The website can be accessed at <https://lakeshore.edu/experience-ltc/student-resources>.

MyLTC

MyLTC is a website that provides access to information, tools, and applications students need to participate as a member of the college community. Students can do the following and more:

- View financial aid to do list items
- Enroll and drop classes
- View demographic information
- View and print unofficial transcripts
- View and pay tuition
- Apply for, view, and accept financial aid
- View and print grades
- View and print class schedule
- Search class offerings
- Print enrollment verification
- Add/update emergency contacts
- Update address and phone numbers (students are expected to keep this information current)

EMAIL

Anyone who fully completes the admissions requirements or registers for an undergraduate or extended education course is automatically provided with a Lakeshore email account.

The student email is: full last name + last 5 numbers of the student's ID. (For example, the email address for Lenny Zen, ID #12345678, would be zen45678@lakeshore.edu). Email is the official mode of communication to students at Lakeshore. Therefore, it is important that students check their student email daily.

Students will receive essential information in their email inbox such as registration dates, graduation information, financial aid, special events, course information from faculty and much more. Visit lakeshore.edu and login to MYLAKESHORE to access the Lakeshore email account through Microsoft Office Outlook 365.

Email accounts of students will be deleted 126 days after the term end date if they don't re-register for classes. Communications will be sent prior to the end of the term remind students to transfer personal data.

NAVIGATE AND STUDENT REFERRAL

Navigate is an online Student Success Management System that connects students to staff, Academic Counselors, faculty, and campus resources. Students can schedule appointments and receive important text messages from Academic Counselors and instructors, access important school information and resources such as reminders for registration dates, scholarships, and tuition/fees information. Faculty and staff also use Navigate as part of the college's Early Alert System to submit student referrals that initiate student outreach for just-in-time student support. Students can access Navigate through MYLAKESHORE or by downloading the free Navigate Student app. For best results, open Navigate in Google Chrome. If you have any questions, please contact Lakeshore's Help Desk at 920.693.1767 or HelpDesk@lakeshore.edu.

OPEN EDUCATIONAL RESOURCES (OER) AND ZERO TEXTBOOK COST (ZTC) COURSES

ZTC classes have no textbook-related costs, including access fees for online materials. Instead of a publisher's textbooks, ZTC courses use a mix of OER online textbooks, links to scholarly and professional websites, resources from the Lakeshore library databases, and multimedia lectures created by Lakeshore instructors. Some materials may have a low-cost option to print. There may still be other non-textbook mandatory costs associated with some of these sections (e.g., scientific calculators, laboratory materials and/or supplies, etc.).

Students will be able to see if they are in a ZTC when they search for their required textbooks in the bookstore. Students will get a message informing them of Open Educational Resources and/or library content required for this course. The course syllabus and Blackboard will also indicate if the class is a ZTC

To print a copy of an online OER textbook, check in the Lakeshore Library to see if they have a checkout copy, or print a personal copy in the Lakeshore Copy Center (L264).

PREFERRED & LEGAL NAME

A student's legal name is the name that is listed on official college documents including, but not limited to, transcripts, certificates, and diplomas. Students who wish to use a preferred name on campus may request that Student Success staff add their preferred name to their student record at Lakeshore.

Students with preferred names:

- will be listed by their preferred name in the student directory.
- will use their preferred name when setting up a username and password for the Lakeshore network and email.
- will be known by their preferred name by the Lakeshore Help Desk.
- MUST contact Student Billing to ensure that all refunds are processed according to their preference **before any refunds are issued.**

Please note that preferred names are not related to legal or official name changes. Students who wish to change their legal name should submit the Official Name Change Form which is available at Student Success or online at [Official Name Change Form](#)

PRINTING/COPYING

To print on campus, student printing accounts are loaded with \$10 at the beginning of each semester (fall, summer, spring). Funds can be added to the account at the Student Success Welcome Center. Any funds added will roll over to the next semester; the original \$10 does not.

COPY CENTER

Lakeshore's Copy Center (L264) offers printing and mailing services, including black and color copying, folding, cutting, scoring, laminating, spiral binding, postage stamps for purchase, and assistance with mailing needs. The Copy Center can print OER (Open Educational Resources) course textbooks. All mail delivered to Lakeshore is considered the property of Lakeshore and will be distributed as determined by Lakeshore administration. For more information, contact 920.693.1147 or copycenter@lakeshore.edu

REGISTRATION

To register online at lakeshore.edu, students should first go to the Current Students Hub and click "MYLAKESTORE" to log in using their User ID and password. Once logged in, select the MyLTC tile to access the registration tools. From there, students can choose classes and complete the registration process. Alternatively, registration is also available in person at the Student Success Welcome Center.

Students will need to complete the following steps to register for classes:

1. Identify the Necessary Classes

If a program student wishes to review the recommended sequence of courses along with prerequisites and corequisites, they should consult the program information sheet. To determine if a desired class has a co/prerequisite, they can visit one of the following resources on the lakeshore.edu website.

- Searchable class listing
- Course descriptions on the program information sheets
- MyLTC Shopping Cart

For assistance in choosing classes, speak with a Academic Counselor. To meet with a Academic Counselor, please call 920.693.1366 or schedule an appointment online through Navigate.

2. Find Class Information

To obtain essential information about each course to register for, students should collect the following details:

- Class Title
- Class Number or Catalog Number

This information can be conveniently acquired through the online *Find a Class* search feature, or on the Lakeshore website.

3. Register for Courses

Confirm the registration dates in MyLTC. Military service members will receive priority registration in accordance with federal law. There are two easy options to register for

Lakeshore class(es):

a. Online Registration (Preferred)

- Log in to MyLTC using the student ID number and password provided. Online registration access is available 24/7.
 1. Forgot the password? Reset it at MyLTC.
 2. The Chrome browser is recommended for online registration.
 3. For additional information about MyLTC use the drop down to find the informational brochure at lakeshore.edu/current-students/technology/

b. In-Person

- Hours: 7:30 am to 5:30 pm Monday-Thursday; 7:30 am to 3:30 pm Friday.
- The Student Success Welcome Center is located on the lower level of the Lakeshore Building.
- For directions to Lakeshore, visit <https://lakeshore.edu/about>

4. Pay Tuition

See [Pay Tuition](#) section in this handbook.

5. Print the Schedule

Find instructions on how to print the schedule from within MyLTC or MYLAKESHORE at lakeshore.edu/how-to-apply/already-a-student-class/print.

6. Purchase Books

The Lakeshore Online Bookstore (eCampus) can be accessed via Lakeshore Online Bookstore tile in MYLAKESHORE

RESTROOMS

Restrooms are available on all Lakeshore campuses and are available to members of the college community and their visitors. Lakeshore also offers handicapped-accessible, single-unit facilities, that provide increased privacy.

SCHOOL CLOSING

On a rare occasion, a situation may arise affecting closing of one or more campuses. (Ex: power outage, waterline break, lock down, cybersecurity issue, bomb threat, etc.). In these cases, the Incident Management Team will alert students and employees. For more information, see the [Unscheduled Building Closure Policy](#).

Students or faculty who are assigned to clinical experiences and employees who are providing contracted services in business and industry will conform to the closure status of those institutions regardless of any other announcements made concerning the closing of the College.

SEVERE WEATHER

Tornado and severe weather drills are conducted periodically during the school year by the Incident Management Team. In the event of a thunderstorm, high winds, tornadoes, etc., an announcement will be made. Occupants will be notified that this is a tornado watch, or a tornado or severe weather warning. Updates will be provided as available.

Students should become familiar with the Tornado/Severe Weather refuge instructions posted in each classroom. Once in the designated refuge area, remain there until notified by safety/security personnel that it is safe to leave. Students are encouraged not to leave the campus while these conditions exist.

STUDENT SUCCESS WELCOME CENTER

Student Success Welcome Center is designed to streamline customer service for a variety of needs. Staff are available on our Cleveland Campus, in the lower level of the Lakeshore building, from 7:30 am to 5:30 pm Monday through Thursday and 7:30 am to 3:30 pm Fridays. Students can visit Student Success for assistance in the following items or services:

- Receive general information
- Register, change, and drop classes
- Make payments
- Billing questions
- Schedule appointments with Academic Counselors and other Student Success staff
- Obtain student photo ID card/program badge
- Student lockers
- Add money to student printing accounts
- Sign up for student activities and promotional events and purchase event and movie tickets
- Drop off and pick up lost and found items
- Vending machine refunds

Student Photo ID

The Student Photo ID serves as a personalized identifier featuring the student's photo. It grants access to library services, financial transactions within Lakeshore, and may provide discounts for external experiences.

ACADEMICS

ACADEMIC FORGIVENESS

Academic Forgiveness is an opportunity to omit the grade point average calculation of credit courses taken during a period of time at Lakeshore. However, course grades will remain on student transcript.

Current students or returning students who had a last undergraduate enrollment within the last three calendar years may apply for academic forgiveness for one term of their choice. Students can only apply once for academic forgiveness for one term.

Returning Students who have not taken any undergraduate classes for a period of at least three calendar years from the last semester of attendance may only apply once for academic forgiveness for a maximum of three semesters of their choice.

Students must be currently matriculated into a program and enrolled in undergraduate classes. Previous grades will remain on the student's academic record but will not be calculated into their grade point average (GPA).

Financial aid funding and Satisfactory Academic Progress do not fall under the Academic Forgiveness policy; enrollment/grade history will continue to be a factor when determining financial aid eligibility.

Students must meet with their Academic Counselor to discuss the qualifying conditions for academic forgiveness prior to submission. The counselor will help the student determine whether repeating a course or forgiveness is their best option.

All course decisions approved for Academic Forgiveness are final and cannot be reversed. If a student changes their program, credit forgiveness is not reversible, and they will need to retake the course if it is required for the new program. Courses that are approved for academic forgiveness will not be eligible to be used as a prerequisite or co-requisite for another course.

APPEAL PROCESS

Students that are denied forgiveness for a course or courses may appeal that decision to the Vice President of Student Success.

ATTENDANCE

It is important that all students enrolled at Lakeshore attend classes regularly to receive the maximum benefit from the educational opportunities provided. Students enrolled in online, or CBE online courses will participate in regular meetings with the instructor to discuss their progress and any academic needs. These meetings can occur virtually or in-person. Students are expected to abide by the attendance policy established by the instructor as published in the course syllabus.

Students that do not attend class sessions in accordance with the class attendance policy and/or whose irregular attendance is negatively affecting achievement will be entered into Lakeshore's referral process to develop an appropriate plan for student success.

It is the student's responsibility to drop a course if they no longer plan to attend. The refund amount will be based on the Refund Policy outlined in this handbook. Students may drop classes via their MYLAKESHORE account or in person at the Student Success Welcome Center desk. Students are unable to drop classes by telephone or email.

CALENDAR

Two 15-week semesters, and one 8-week summer session are offered. Selected programs are offered at other dates. Fall (December) and spring (May) graduation celebration events are held on campus.

CLASS ADDITIONS, TRANSFERS, & DROPS

Students may add, transfer, or drop classes either through their MyLTC account or in person at the Student Success Welcome Center.

Adding Classes:

Students may add a class seven (7) days after the class starts. After (7) days, division approval is required to register.

Dropping Classes:

Students may drop a class at any time before the last day of class. Students who drop a class may be eligible for a refund according to the WTCS Refund Policy. Students are unable to drop courses by telephone or email. Students who withdraw from a class at the time when more than 60 percent of the class hours have elapsed will receive a grade of WF. Prior to that time, the student will receive a grade of W.

Note: Students are advised to contact their Academic Counselor prior to dropping to discuss potential impact on financial aid, refunds, and other educational impacts.

Students are responsible for officially dropping classes or withdrawing from campus for the term. Stopping attendance in class does not constitute dropping a class or withdrawing from a term. Lakeshore will only drop students from courses if the student initiates a drop as described above. Class fee refunds are issued in accordance with guidelines established by the Wisconsin Technical College System. The refund amount received is based on a few factors, including when the drop occurred and how much class meeting time has elapsed.

COURSE DELIVERY METHODS

Learning options offer flexibility and affordability to many of the same courses offered in a traditional on-campus classroom.

- Flexibility: Options designed to suit individual preference.
- Affordability: reduce cost of travel, daycare, and time away from work.
- Same courses: the course outcomes do not change, only the delivery.

Traditional, Video Conference, Online, Blended, Hybrid, Competency-Based Education (CBE), and iFlex

These courses are designed to offer greater convenience and learning options.

- **Traditional and Technology-Facilitated courses** are delivered in a face-to-face setting. The course may use technology to facilitate instruction.

- **Video Conference courses** are delivered via network or web conferencing.
- **Online course** content is delivered 100% through the internet and accessed by students using a web browser in an asynchronous and possibly synchronous format. Courses may require proctored (supervised/onsite) testing. Students are required to complete work by specific deadlines throughout the course. The following are essential for online courses:
 - Access to a computer with internet service.
 - Strong motivation to achieve a goal.
 - About 3 hours per credit each week for class work (may vary depending on class, content, skill level, etc.).
 - Good time management skills.
 - Computer skills in email, internet, and basic computer operations.
- **Blended courses** use online learning activities to aid in learning the course material and reduce face-to-face instructional time. Less than 50% of the course instruction is delivered via online using the internet combined with face-to-face instruction. For example, a course that normally meets twice a week as a traditional course may only meet once a week or every other week in a blended course. The course schedules show the times the course will meet in a face-to-face format. The student will need access to a computer with internet service.
- **Hybrid courses** combine online and face-to-face instruction. At least 50% but less than 100% of course instruction is delivered via online using the internet (accessed by the student using a web browser), combined with face-to-face instruction. A one-time face-to-face course orientation or off-line supervised tests/exams at specified sites may be conducted in conjunction with these courses.
- **iFlex** is a course delivery that lets students have the flexibility of attending in person or online, as their schedule allows. Students have equitable components, such as learning activities, assessments, and recorded lecture content, whether sitting in the classroom or learning online. Structured due dates are present throughout the course. Class time may vary, depending on individual course. Check course schedule for meeting times and locations.
- **CBE Delivery Format** is a delivery format that Lakeshore offers, just like blended, online, hybrid, and face-to-face instruction. However, because CBE can be applied to multiple courses differently, the CBE delivery was divided into additional delivery methods.
 - **CBE On-Campus** CBE on-campus courses offer flexibility in scheduling and gives you the opportunity to complete coursework on campus. Course activities can require in-person participation with your instructor and/or classmates. CBE on-campus courses also use a web-based learning platform to facilitate lecture instruction. Consult the course schedule to identify the times and locations available for your on-campus learning.
 - **CBE Hybrid** CBE hybrid courses offer you the opportunity to attend structured courses to stay at a minimum pace, but allow flexibility when life happens or acceleration to move faster through material. With a combination of in-person instruction and online platform learning, set your own flexible schedule to complete coursework. Additional course activities may require you to participate in scheduled, structured on-campus or virtual in-person sessions with your instructor and/or classmates. Consult the course schedule to identify the learning meeting times and locations.

- **CBE Online** CBE online courses can be completed 100% online at times convenient to you. Regular interactions between you and your instructor are scheduled virtually during mutually agreed upon times. You can also drop in during scheduled hours on campus to meet with your instructor and other students.

CREDIT FOR PRIOR LEARNING

Lakeshore recognizes its responsibility to provide advanced placement status to those students with valid and credible learning experiences that have occurred outside our college classrooms. Credit for Prior Learning may be granted for the following situations:

Transfer Credits:

- 1) Postsecondary credits earned at other Wisconsin Technical College System (WTCS) colleges.
- 2) Postsecondary credits earned at non-WTCS colleges.
- 3) Credits earned by high school students.
- 4) Credits earned by completing a registered apprenticeship.

Other Non-College Education & Training*:

- 1) Subject area competency demonstrated by passing a district or national examination.
- 2) Previous work experience, military training, education or training, or other prior learning demonstrated as comparable in content and rigor to a specific technical college course or courses.

*Students desiring to earn credit for their prior learning from non-college education and training (work/life experience) may be assessed for their prior learning through a prior learning assessment. A prior learning assessment can be a test, portfolio, skills demonstration, or combination of methods. Testing out of a course must be completed within the first two weeks of the course. Not all courses have prior learning assessments, students should contact their Academic Counselor at 920.693.1366 for more information.

General Guidelines for Credit for Prior Learning:

Credit for prior learning must be applied toward a specific program at the College. Non-program students are not eligible for advanced standing.

- The student must have earned a grade of 2.0 or better (on a 4.0 scale) in the course being considered.
- The course being transferred must be generally equivalent in content and meet or exceed the credit value of the Lakeshore course.
- Transfer credit may be awarded for up to 75% of the degree, diploma, or certificate requirements. Students must complete a minimum of 25% of the technical/occupational courses required to complete the degree or diploma at Lakeshore.
- Lakeshore reserves the right to place time limits on prior learning for which credit may be granted based on technological changes specific to that field.
- Original transcripts from awarding institutions are required when transferring college credits to Lakeshore.
- If the student chooses to be assessed for their prior learning in a currently enrolled class, it must be completed within the first two weeks of the class and any refund due to the student will follow WTCS refund policy for that specific class.
- Credits earned through prior learning assessments are not eligible for financial aid.

- The student does not have to be enrolled in the course to complete a prior learning assessment.
- If the student has been enrolled in the course for longer than two weeks or has been enrolled in the same course at any point in the past, the student may not petition for Credit for Prior Learning.
- Exams are \$50 and Portfolio and Skill Demonstrations are \$90.
- Credit for prior learning for previous work experience will include a \$90 fee.
- Courses may be bundled so that only a single assessment fee is charged.

GRADING

Grading communicates the student's level of competence and/or proficiency at the end of each class. The definition and grade point value of each is as follows.

Grade A <ul style="list-style-type: none"> • Superior • Superiorly met for CBE courses • Awarded 4 grade points per credit • Included in GPA 	Grade B <ul style="list-style-type: none"> • Above average • Met for CBE courses • Awarded 3 grade points per credit • Included in GPA
Grade C <ul style="list-style-type: none"> • Average • Awarded 2 grade points per credit • Included in GPA 	Grade D <ul style="list-style-type: none"> • Below average • Awarded 1 grade point per credit • Included in GPA
Grade F <ul style="list-style-type: none"> • Failure • Not met for CBE courses • Awarded 0 grade points per credit • Included in GPA 	Grade P <ul style="list-style-type: none"> • Pass • Awarded 0 grade points per credit • Not included in GPA • Student achieved the competencies for the class at the required proficiency level.
Grade N <ul style="list-style-type: none"> • Non-graded • Awarded 0 grade points per credit • Not included in GPA • The class is not a graded/credit class. 	Grade LF <ul style="list-style-type: none"> • Lapsed F • Awarded 0 grade points per credit • Included in GPA • An IC grade that has not been changed to another grade six weeks after the end of
Grade WF <ul style="list-style-type: none"> • Withdrawal F • Awarded 0 grade points per credit • Included in GPA • Student withdrew from the class at the time when more than 60 percent of the class hours had elapsed. 	Grade W <ul style="list-style-type: none"> • Withdrawal • Awarded 0 grade points per credit • Not included in GPA • Student withdrew from the class after the class had started but before 60 percent of the class hours had elapsed.

Grade TR <ul style="list-style-type: none"> • Transfer • Awarded 0 grade points per credit • Not included in GPA • Student achieved the competencies by some other approach than completion of the specific class at Lakeshore and has 	Grade WE <ul style="list-style-type: none"> • Withdrawal for extenuating circumstances • Awarded 0 grade points per credit • Not included in GPA • Student withdrew from the class after it had started due to extenuating circumstances.
Grade R <ul style="list-style-type: none"> • A previously failed course will be changed to a final grade of R after a student successfully retakes and passes • Not included in GPA 	Grade TA <ul style="list-style-type: none"> • Transcribed audit (for high school students ONLY) • Not included in GPA
Grade NS <ul style="list-style-type: none"> • No show • Indicates student registered for a class but did not participate nor drop the class • Not included in GPA 	

Consistent Grading Scale

Due to accreditation requirements, certain program handbooks may follow different grading scales from those below.

Traditional (Non-CBE)

A 93-100%
 B 86-92%
 C 78-85%
 D 70-77%
 F Below 70%

CBE

Superiorly Met A 93-100%
 Met B 86-92%
 Not Met F Below 86%

A complete grading policy may be obtained in Student Success. [Grading Policy](#)

Courses forgiven under the Academic Forgiveness policy will be noted on the student transcript with an * and are not included in GPA.

IC (Incompletes)

Students may be eligible to receive an “IC” grade in an undergraduate class where they have completed at least 75% of the work for the course and at the discretion of the instructor. The student will then have additional time (up to six weeks), as agreed upon with the instructor, to complete all remaining requirements for a valid grade found on the grading scale. The “IC” grade changes to an “LF” grade six weeks after the last day of the term if there is no other grade given or extension granted. Grades of “IC” are considered as attempted but not completed when calculating percentage of completion for financial aid when determining Satisfactory Academic Progress. The “IC” grade is not calculated into the non-financial aid GPA until the grade has been changed.

R (Retake Class)

If a student retakes a course, the most recent grade is retained and the previous course grade is changed to a grade of "R". The most recent grade is used to calculate the grade point average. All courses attempted will be shown on the permanent record, but the final cumulative grade point average reflects only the most recent grade.

AU (Auditing a Class)

Students may enroll in a class without desiring a grade. This is called "auditing." An auditing student must register and pay the same fees as students enrolled for credit. The usual withdrawal/refund policy will apply.

No credit is given for a class which is audited. Therefore, the audited class does not count towards credit load or for financial aid. When auditing a class, students may not change enrollment status at a later date to receive credit for that class. Students may, however, retake the class as a regular student and receive credit upon successful completion of the class.

To audit a class, the student must obtain written approval from the instructor of the class before the end of the second week of that class. A Course Audit/Drop/Transfer form with the instructor's signature indicating the audit status must be returned to Student Records for processing.

A student may audit a course as part of an overall educational plan of self-improvement. A student may not audit a course for the sole purpose of assisting another student academically with the course.

Lakeshore reserves the right to restrict the auditing of certain classes.

STUDENT GRADE APPEAL AND OTHER ACADEMIC CONCERN PROCESS

Students may appeal a final grade, assignment grade, or other academic concern through the following process. For grade appeals, students must initiate step one of the appeal process within seven (7) business days following the submission of the grade. All appeal steps must be communicated in writing or via email.

Step 1

The student is encouraged to communicate with the instructor who assigned the grade to resolve the concern. The faculty will respond within seven (7) business days.

Step 2

If not resolved, the student will submit a Grade Appeal form. The appeal form will be submitted to the Division Dean or Associate Dean who will conduct a review of the information presented by the student and respond with a decision within seven (7) business days.

Step 3

The student may appeal the Dean's decision to the Executive Director of Student Affairs by submitting a written document describing their specific concerns. The Executive Director of Student Affairs then reviews the appeal to determine if it merits further consideration. If the matter does not warrant further consideration, the matter will be considered closed. If further review is warranted, additional information will be collected and provided, at the Executive Director of Student Affairs' discretion, to either an Internal Investigation Committee or the Vice President of Instruction.

Step 4a

Internal Investigation Committee will consist of the Vice President of Student Success, a student, a faculty member not associated with case, and a Dean not associated with that division. The Executive Director of Student Affairs will serve as an ex-officio member. Students and staff involved will be notified of the decision within fifteen (15) business days. The decision of the Internal Investigation Committee will be considered final for the Lakeshore process.

Step 4b

The student may appeal the committee's decision, in writing, to the Vice President of Instruction within ten (10) business days of the receipt of the committee's decision. The Vice President of Instruction will meet with the student involved within ten (10) business days. The decision of the Vice President of Instruction will be considered final for the Lakeshore process.

The College's final decision may be appealed to the Wisconsin Technical College System (WTCS).

GRADUATION REQUIREMENTS

Students are required to submit an Application for Graduation to Student Records one semester prior to the anticipated graduation date. The Lakeshore College District Board will confer associate degrees, technical certificates, and technical diplomas to students that meet the following graduation requirements:

- Complete program of study with at least a program grade point average (GPA) of 2.0.
- Complete technical/occupational studies courses with a passing grade. Students and staff are to refer to program handbooks, course prerequisites or program curriculum for variations.
- All associates degree, technical diplomas, and certificate students must complete at least 25% of the technical/occupational studies courses at Lakeshore.

HONORS RECOGNITION

Lakeshore has academic honors recognition for continuing and graduating students.

Honors Graduate

To receive Graduate Honors at the time of graduation, a student needs to earn a program GPA of 3.500 to 3.999. Honors designations will appear on the student's transcript after graduating from a selected program.

Presidential Honors Graduate

To receive Presidential Honors at the time of graduation, a student needs to earn a program GPA of 4.000. Honors cords will be awarded to graduates who earn Honors, and an honors medallion will be awarded to graduates who earn Presidential Honors.

Honor cords and medallions may be worn during the graduation celebration event.

Awards Celebration

See [STUDENT LIFE](#) (Student Leadership Board) section in this handbook.

Dean's List

Students that have 6 or more semester credits and at least a semester GPA of 3.500 will qualify for the Dean's list. Student names will be sent to the area newspapers for publication at the end of the fall and spring terms.

Phi Theta Kappa Honor Society

Phi Theta Kappa (PTK) is an international honor society for two-year institutions. PTK recognizes and encourages academic achievement and provides opportunities for individual growth and development through participation in honors, leadership, service, and fellowship activities. Students are invited to join when they have completed 12 or more credits of associate degree coursework or six credits of technical diploma coursework and overall 3.50 cumulative GPA (counted from the past 5 years). The one-time, lifetime membership fee is \$75.

Military Honor Cords

In recognition of military service to the United States of America, students who are honorably discharged or currently serving in the U.S. military (active duty, National Guard, or Reserves), or will be commissioned upon graduation, are given the opportunity to wear a red, white, and blue honor cord. Current or former service member who chooses to be recognized at the ceremony may contact Student Records at records@lakeshore.edu to receive a military cord.

INSTRUCTOR ABSENCE/CLASS CANCELLATION

Instructor absences and subsequent class cancellations will be announced via a text, email, and/or phone call. Student should check their Lakeshore student email and Blackboard as coursework may still be required. Communication will be updated as often as necessary throughout the day. School closings are also posted on the campus website at lakeshore.edu.

PREREQUISITES

Prerequisites for courses are designated in the course descriptions found on the program sheet and the "Find a Class" link on the college website. Registration in a class requiring a prerequisite is permitted by satisfying the prerequisite requirements or with permission of the instructor. Information is available in the Student Success office. Courses may have a specified minimum achievement level required in the prerequisite courses.

SHARED PROGRAMS

Shared programs exist between Lakeshore and other Wisconsin Technical System Colleges. Students are subject to the same grade and grade point average requirements for class progression. All grades earned in program courses offered by Lakeshore or shared program districts are calculated into the program GPA.

Financial aid is available to those who qualify and will be issued by the degree-granting college.

Courses required within the shared program are included in financial aid credit load.

TRANSFER OF CREDITS TO LAKESHORE

Students may transfer credits taken at other postsecondary institutions to Lakeshore. Credits will only be accepted under the following conditions:

- An official transcript must be requested by the student to be sent from the campus where the student took the class(es).
- If the official transcript is not mailed directly from the sending campus, it must be delivered in an unopened, sealed envelope.
- The sending campus must have been regionally accredited at the time the class or classes were taken.
- The student must have earned a grade of C or higher for credits to transfer.
- The student may be required to provide additional information such as course descriptions or course syllabi, in order to complete the transfer process.

TRANSFER OF CREDITS TO OTHER POSTSECONDARY INSTITUTIONS

Lakeshore credits transfer to a large number of other colleges and universities in Wisconsin and across the country. To transfer credits to another institution, the student must request an official transcript online on the Lakeshore website. Student records, including transcripts, are confidential documents and will be only sent out upon an online request.

Credit transferability is determined by the receiving institution. Lakeshore's Executive Director of Student Affairs will assist students with transferability concerns.

PAYING FOR COLLEGE

ACCIDENT INSURANCE (Student mandatory)

All students enrolled in program courses will automatically be enrolled in the mandatory student accident insurance program. This provides \$50,000 of coverage at 100% if a student is injured in an accident while in the classroom, lab, clinical or intern site. The student is also covered while participating in any college or club sponsored event, and while driving to and from class or clinical/intern site. Students enrolled in distance learning, on-line, basic skills, or adult and continuing education courses would not be covered. The cost for this insurance is \$4 per student per term and will be added to the student's account. Students requesting to waive this coverage must contact the Financial Services office. To view personal coverage information, edit a primary address, or generate an ID card, visit [Gallagher Student Health and Special Risk](#).

FEES

The fee structure is established and approved through the Wisconsin Technical College System Administration and Board. Payment of fees is required to complete the admission and pre-registration process. Please refer to the online fee schedule for current pricing.

- Program Fee: a program fee will be charged for all credit classes. Vocational apprenticeship classes will be charged for each credit equivalent. The program fee covers registration, class, and lab fees.
- Supplemental Fee: a supplemental fee is charged to part- and full-time students taking credit classes. These monies help support graduation, student employment service, Student Leadership Board, clubs, student leadership and development activities, and student cultural and social events. Adult Education/English Language instruction and 38.14 contracts are exempt from paying the supplemental fee.
- Material Fee: a material fee is charged for various materials used in a given course.
- Test Outs Fee: a student may attempt to test out of certain classes by taking an examination. The cost is \$50 per test out. The College Level Examination Program (CLEP) total cost is \$120.
- Accuplacer Fee: Apprentice students required to take the Accuplacer will be charged \$25.
- Background Information Disclosure Fees: This is required for students involved in identified programs. The cost is \$40.
- Lakeshore Transcript Requests Fees: Official transcripts are \$10 per transcript and must be requested online. Unofficial transcripts have no fee and may be printed via MyLTC.
- GED/HSED Transcript Requests: GED/HSED transcripts and credentials must be requested from the State of Wisconsin Department of Public Instruction (official bearer of the record); contact the department at 800.768.8886 or dpi.wi.gov/ged/transcripts.
- Accuplacer Test Result Transcript Requests Fee (for use at other colleges): A \$10 fee is charged for transcript requests made in writing, in person, by mail, email or fax. Contact Testing Services at 920.693.1184 or testing@lakeshore.edu. Transcripts are mailed within 48 hours. Accuplacer test results cannot be printed from MyLTC.
- Accident insurance is \$4 per student/per term and will be added to the student's account.
- Diploma reprint fee is \$10.
- International Student Admission Processing fee is \$100.
- Additional fees may apply.

FINANCIAL AID

Financial Aid services are in the Student Success area. Financial Aid staff are available to help students apply for financial aid and complete other financial aid requirements. Lakeshore offers Title IV federal and state financial aid which includes grants, loans, and work-study jobs, along with Veteran benefits to students who qualify. Students wishing to receive financial aid must complete a Free Application for Federal Student Aid (FAFSA) each academic year and complete additional Lakeshore Financial Aid forms and provide documentation, as necessary. "The definition of an academic year for purposes of distributing financial aid funds is 30 weeks of instruction and 24 semester credit hours. The academic year consists of a fall term and a spring term. An 8-week summer term is also available."

Book Charges

Book charges to purchase required books and supplies are available to students with pending financial aid in excess of tuition and fees for the semester. Book charges are only valid at the Lakeshore Online Bookstore. Students are not required to purchase books and supplies at the Lakeshore Online Bookstore and are not required to exercise the option to utilize the book charge process. Book charges are typically capped at \$900 with special considerations occurring through the Lakeshore Financial Aid Office. Book charges are available 3 weeks prior to the start of the term through the 10th week of the term.

Disbursement

Funds are paid 3 weeks into the academic semester for fall and spring, after July 1 for summer semester, and weekly thereafter. A student must have begun participation in at least one of their scheduled classes for financial aid to be paid. When financial aid is paid, it is applied to their student account to pay for any existing charges. Any excess is released as a refund via a paper check or direct deposit as directed by the student.

Eligibility

Generally, a student must meet the following eligibility criteria to receive financial aid: be admitted to an eligible degree-seeking program at Lakeshore; be a citizen, permanent resident of the United States, or other eligible non-citizen as detailed at fafsa.gov; have a FAFSA with a successful citizenship match (by the Social Security Administration for U.S. citizens or the United States Citizenship and Immigration Services in the Department of Homeland Security for eligible non-citizens); maintain Satisfactory Academic Progress (SAP) according to the SAP policy; be in compliance with Selective Service Registration, for state aid only; have a high school diploma, HSED, or GED; be enrolled at least half-time for federal and state funded financial aid programs (those less than half-time may only be eligible for the Federal Pell grant); resolve any drug conviction issues; fill out all required documents to complete a financial aid file; only take coursework necessary for the program being pursued; participate in coursework; and complete any necessary applicable loan requirements.

Enrollment Level for Financial Aid

Students taking 12 or more credits are considered fulltime; 9-11 credits are considered three-quarter time; 6-8 credits are considered halftime; and 1-5 credits are considered less than halftime. Students may need to complete 16 to 18 credits each semester to graduate on time.

Types of Financial Aid

Need-based awards offered include: Federal Pell Grant; Federal Supplemental Education Opportunity Grant (SEOG); Direct Subsidized Student Loan; Federal Work Study; Wisconsin Grant; Talent Incentive Program Grant (TIP); Minority Retention Grant; Fund for Wisconsin Scholars; Bureau of Indian Affairs Grant; Wisconsin Indian Assistance Grant.

Non-need-based awards offered include: Direct Unsubsidized Student Loan; Additional Unsubsidized Student Loan; Parent Plus Loan; Nursing Loans; Wisconsin Technical Excellence Scholarship; Wisconsin Covenant Grant; Wisconsin Foundation Grant; and Wisconsin Academic Excellence Scholarship.

Satisfactory Academic Progress (SAP)

The U.S. Department of Education requires financial aid recipients to maintain satisfactory academic progress (SAP). SAP measures both qualitative (grade point average process) and quantitative (pace and number of credits earned). All attempted undergraduate credits, including repeated courses, withdrawals, and incomplete courses will be calculated in a student's SAP, regardless of whether financial aid has been received for these courses.

- **Satisfactory Academic Progress** will be calculated at the end of each academic semester. Students are expected to receive a cumulative grade point average (GPA) of at least 2.0 and complete at least 66.67% of their cumulative credits attempted to remain in good standing.
- **Pace Measure** is based on the cumulative number of program credits attempted, not to exceed 150 percent of credits required in the student's program. Students in excess of 150 percent may appeal and develop a maximum timeframe plan to continue financial aid eligibility.
- **Qualitative Measure** is based on a student's cumulative grade point average (GPA). Students must maintain a cumulative GPA of 2.0 to remain in good standing.
- **Quantitative Measure** is based on the cumulative satisfactory completion of cumulative attempted credits. Students must maintain a cumulative satisfactory percentage of completion of 66.67% or higher to remain in good standing.
- **Financial Aid Warning** is when a student fails to meet either the qualitative or quantitative measure, or both. The student is still eligible to receive financial aid while on warning.
- **Financial Aid Suspension** is when a student fails to meet either the qualitative or quantitative measure after the warning period. The student is no longer eligible to receive financial aid.
- **Appealing Financial Aid Suspension** is when the student appeals to have financial aid reinstated due to extenuating circumstances. Extenuating circumstances must be outside of the student's control, have documentation, and be explained in the Financial Aid Appeal Form. All SAP appeals, supporting documentation and any academic plans must be submitted to the Financial Aid Office by the last date of the current academic year term. Failure to do so will result in students being ineligible for financial aid for the term.
- **Financial Aid Probation** is when the student has an approved appeal. This allows the student to receive another semester of financial aid.
- **Financial Aid Academic Plan** is when the student has an approved academic plan. This allows the student to continue to receive financial aid as long as the academic plan requirements are followed. Students must meet cumulative satisfactory academic progress by term (versus cumulative) to remain in good standing.

A full description of the SAP policy can be found at lakeshore.edu/financial-aid/eligibility/satisfactory-academic-progress.

Withdrawal

If a student receiving financial aid withdraws from all classes in a semester, the financial aid office is required to calculate any potential Return of Title IV funds (R2T4) to the Department of Education. A student must complete 60% of a semester to avoid a R2T4. If any financial aid is determined to be owed, the student will receive an email detailing the amounts and instructions on how to make payments. In addition, a hold will be placed on your account preventing future registration until the repayment balance is paid.

PAY TUITION

Lakeshore payment methods include cash, check, money order, credit card (Visa or MasterCard), a completed Financial Aid Award, a third-party authorization, and the Lakeshore payment plan. Refer to MyLTC for detailed payment plan options and dates.

Students anticipating expenses to be paid by an agency such as the Workforce Innovation and Opportunity Act (WIOA), Trade Adjustment Act (TAA), Veterans Benefits, or Department of Vocational Rehabilitation must provide an authorization form detailing the course(s) and fees approved for payment.

Students who have not been awarded financial aid from Lakeshore's Financial Aid Office and elect to sign a payment plan agreement must follow the payment plan guidelines. Students are required to pay a nonrefundable participation fee at the time of signing up for the payment plan unless the student chooses the auto-withdrawal option for payment.

Any unpaid balance is the responsibility of the student. It is the student's responsibility to ensure all applicable financial aid, third-party payments, and other outside payments are applied to their account as expected. Balances not paid by the due date are subject to:

- A late payment fee of \$100 for failure to pay by the due date; \$100 maximum per semester.
- Referral to an outside collection agency and collection costs, and to the Tax Refund Intercept Program or State Debt Collection.
- Not being able to register until balances are paid.

Up to date billing information is found within MyLTC.

Agency Assistance

Students who receive financial assistance through agencies such as the Bay Area Workforce Development, Division of Vocational Rehabilitation, etc., should contact the Student Billing staff in Student Success if they have questions. An authorization from the agency is needed to charge tuition, books, fees, and supplies at the college. Some agency regulations require strict and regular attendance. Students are responsible for any balances unpaid by the agency.

Payment Options:

- Lakeshore accepts a variety of payment methods:
 - Cash, check, credit cards (Visa or MasterCard), money order, and electronic funds transfer
 - Scholarships
 - Financial aid

- Employer/Agency Funding. Authorization must be on file at the time of registration, or an Agency Payment Agreement form must be completed. Forms are available at Student Success.
- Payment plan
- Employee Reimbursement Payment Agreement (requires a payment of \$50 per class, Lakeshore Employee Reimbursement form, and student's employer's Human Resource policy per semester. Contact Student Billing for more information.)
- Registration on or after the stated tuition due date for a semester will require immediate payment of tuition and fees.

Past Due Fees:

- Past due fees owed to Lakeshore results in a hold placed on the students record, prohibiting further services. The hold remains in effect until the financial obligation has been satisfied.
 - Students with outstanding balances will not be allowed to register.
 - Lakeshore reserves the right to require upfront payment from a student for future registrations.
 - Past due balances may result in a referral to an outside collection agency and collection costs, and to the Tax Refund Intercept Program or State Debt Collection.
 - Library resources, including equipment, if not returned to by due date, may result in additional fees and collection efforts. After equipment is referred to collections, it will be permanently disabled.
 - If a returning student has gone to collection agency more than 2 times and have cleared their balance, they will have a cash only hold. This will allow a student to register if payment is made in full at the time of registration or financial aid is put in place as anticipated on their account.
- To view the account summary, visit MyLTC and click on "Student Center" and "Finances."
- Send communications to:

Lakeshore College
Attn: Student Billing
1290 North Avenue
Cleveland, WI 53015

REFUNDS

Class Refund

When a student drops a class, the amount of refund received is calculated in accordance with the Wisconsin Technical College System refund schedule. That schedule is based on a number of factors, including when the withdrawal occurred and how much of the class meeting time has lapsed.

- If students withdraw on or before the first day of class, they are entitled to a fee refund equal to 100% of the fees.
- If students withdraw before or at the time 10% of the course's potential hours of instruction have been completed, they are entitled to a fee refund equal to 80% of the fees.
- If students withdraw after 10% but before more than 20% of the course's potential hours of instruction have been completed, they are entitled to a fee refund equal to 60% of the fees.
- If students withdraw after 20% of the course's potential hours of instruction have been completed, they are not entitled to a fee refund.

- No refunds will be considered for advanced standing and test-out fees.
- Students seeking advanced standing in classes they want to enroll in or are enrolled in need to complete testing out of the class within the first two weeks of the class start date to receive a full class refund.

If a student received financial aid to pay for the term, that money may be due back to financial aid.

Refund Appeals

All refund appeals must be initiated by sending the completed Lakeshore College Request for Refund Appeal with proper documentation to the Executive Director of Student Affairs no later than 42 calendar days from the end of the term.

A refund request made after the 42-day grace period will not be accepted and students will be responsible for payment. Refunds for extenuating circumstances (situations outside of students control) will be made at Lakeshore's discretion.

Disputed Fee Assessment

Disputes regarding registration, withdrawals, and related fee assessments or refunds MUST be brought to the attention of Student Billing and/or the Executive Director of Student Affairs during the semester in which the registration and related fee assessment occurred. Lakeshore's obligation to follow-up on such disputes does not extend beyond the term the disputed charges took place.

SCHOLARSHIPS

The Lakeshore College Foundation awards scholarships to assist students with the costs of tuition, fees, and books for both fall and spring semesters. Scholarship selection criteria differ depending on the opportunity and can include, but are not limited to, financial need, merit, program enrollment, and general student success. Foundation scholarships are funded by charitable donations from local foundations, Lakeshore staff, businesses, friends, and alumni who elect to invest in their community by supporting technical education, the college, and its students.

Foundation scholarship applications and information can be found on My Lakeshore. Enrolled students can go to their "My Lakeshore" page, click on the orange and yellow icon for AwardSpring, sign in with their Lakeshore username and password, see a list of scholarships, and complete an application. For questions, please reach out to the Advancement team at foundation@lakeshore.edu

STUDENT EMPLOYMENT

Lakeshore College provides students with a variety of employment opportunities to help manage educational costs, gain valuable work experience, and explore career interests. These opportunities include both Federal Work-Study Program and Student Help positions.

The Federal Work Study Program is a need-based financial aid initiative that allows students to work part-time, earning funds to help cover their college expenses. On-campus positions are available on a first-come, first served basis.

For students who don't qualify for Federal Work Study, Lakeshore offers Student Help positions. These provide students with the chance to earn income while gaining relevant experience in their

academic fields.

Both on-campus roles offer semi-monthly pay, require student to be enrolled in at least 6 credits, and maintain average grades while employed.

All available positions can be found on Lakeshore College's career page in both English and Spanish. If you're interested in either Federal Work Study or Student Help roles, you are encouraged to submit an application. For any questions or assistance, please reach out to the Human Resources department at humanresources@lakeshore.edu or call 920-693-1158.

VETERANS SERVICES

Lakeshore College is approved by the State Approving Agency (SAA) at the Wisconsin Department of Veterans Affairs (WDVA) for enrollment of those persons eligible to receive federal GI Bill® education benefits. The SAA approves specific programs offered at specific locations for veterans and other eligible persons to receive federal veteran's education benefits under Title 38 of the U.S. Code. Please note: Students must complete and submit necessary forms, including proof of eligibility for federal VA benefits and the Lakeshore Veterans Education Benefits Request form, to initially receive state and/or federal benefits and avoid late fees. Veterans continuing to receive federal benefits must complete the Lakeshore Veterans Education Benefits Request form each semester. For more information, contact the local County Veterans Service Officer or Lakeshore's Financial Aid/Veterans Office at VETS@lakeshore.edu or 920.693.1118.

Effective January 2020, the Harry W. Colmery Veterans Educational Assistance Act of 2017 (also known as the "Forever GI Bill"), Section 107, requires Post-9/11 GI Bill® monthly housing payments to be calculated based on the location of attendance. Contact the School Certifying Official for specific details.

Veterans Standards of Progress Policy for Federal Benefits

To obtain federal veterans educational benefits, government regulations require students to maintain satisfactory academic progress in the program that they are enrolled. Academic suspension will be reported to the Veterans Administration, as officials at Lakeshore are obligated to do so. Failure to meet satisfactory progress requirements will result in:

Semester GPA of 1.0 to 1.99: During the semester a veteran is on academic probation, satisfactory progress with a 2.0 semester GPA must be achieved, or eligibility for benefits for the following semester will be lost.

Semester GPA of .99 or lower: Veterans academic suspension. If a student earns less than a 1.0 grade point average for any semester, they will lose their eligibility for veterans benefits. If a student become ineligible for veterans benefits, they can re-establish eligibility by seeking services through their Lakeshore Academic Counselor in order to resolve academic or other problems and to establish a meaningful plan for successful completion of their education or training. A specific request for resumption of veterans benefits following an interruption due to unsatisfactory progress or conduct must be filled out by the student and their Academic Counselor and submitted to the veterans certifying official at Lakeshore to determine whether further payments of veterans educational assistance allowance should be authorized. This form will be mailed to the student with notification of unsatisfactory progress. A student can re-establish eligibility in this manner only one time. If the student is suspended a second time, they will need to take six credits and pass with a 2.0 semester

GPA or greater in one semester. A student can then resume benefits the semester following this.

The law requires student payment for a course which is not used in computing graduation requirements unless extenuating circumstances are shown. If a student does not meet the required course grade, it can be retaken until required grade is obtained.

If the student feels there are extenuating circumstances, they should notify the Veterans Administration of the circumstances. The Veterans Administration will then make a decision regarding whether the extenuating circumstances are beyond the student's control.

If the student does write to the Veterans Administration, explain the circumstances in detail in order that a fair and just decision can be made. Be sure to include the Veterans Administration file number associated to the case. Correspondence can be submitted by postal mail or through an online request at <https://ask.va.gov>. If sending by mail, use the address below.

Veterans Administration Regional Office
PO Box 4616
Buffalo, NY 14240-4616

Veterans Standards of Progress Policy for Wisconsin GI Bill Benefits

As of January 1, 2014, a student must have at least a 2.0 cumulative GPA to qualify for benefits. They will be responsible for any costs associated with attending classes if their cumulative GPA is below 2.0. This will be a requirement for every semester.

If the student loses their WI GI Bill eligibility because of their GPA but later improves their cumulative GPA to at least 2.0, they will be able to use the WI GI Bill during the next semester in which they enroll for classes.

RIGHTS & RESPONSIBILITIES

Please note, individual program handbooks may detail policies that are required for specific programs and may supersede general college policies.

ACADEMIC FREEDOM

The college as an institution will remain neutral on partisan political matters. The neutral position is maintained to encourage an environment where faculty, students, and employees can express individual points of view and to insulate the college from undue political influence or pressure.

Faculty at Lakeshore are entitled to freedom in the classroom in discussing their course competency and outcomes, but they should be careful not to introduce into their teaching controversial matter which has no relation to their course competency and outcomes. Faculty members are expected to educate students to think for themselves, and to facilitate access to relevant materials that they need to form their own opinions. Faculty members are expected to present information fairly, and to set forth justly divergent opinions that arise out of the academic process and professionalism.

Examples of individual conduct that is not protected under the Academic Freedom Policy are as follows, but not limited to: threats or verbal harassment directed toward any member of the college community; disorderly conduct on college property or at any college-sponsored function in a manner that disturbs the privacy of other individuals and/or the instructional program; violation of college regulations or policies; and violation of any federal, state, or local criminal law either on campus or at any college sponsored activity.

ACCESS TO STUDENT RECORDS - FERPA

Student Records Confidentiality Notice

The Family Educational Rights and Privacy Act (also known as FERPA or the Buckley Amendment) affords students certain rights with respect to their education records. They are:

- The right to inspect and review the student's educational records within 45 days from the day the college receives a request for access. The student should submit written requests that identify the record(s) they wish to inspect to Student Records or the Executive Director of Student Affairs.
- The right to request the amendment of the student's education records that the student believes is inaccurate or misleading. They should write to the Executive Director of Student Affairs and clearly identify the part of the record they want changed and specify why it is inaccurate or misleading.
- The right to consent to disclosures of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent.
- The right to refuse to permit the college to designate disclosure of personally identifiable information about the student as directory information which is not subject to restrictions on disclosure.

The following information is designated directory information: name, city and state of residence, field(s) of study, current enrollment status, dates of attendance, degrees received, honors and awards received (including selection to a dean's list or honorary organization), and photos and videos of students for use in college presentations/displays, news releases, publications, and websites.

Students who do not wish to have their designated directory information disclosed Must complete the Withhold Directory Information form.

Students may consent to the release of non-directory information by submitting a form for Authorization to Release Non-Directory Information.

Under sections 99.31(a) and 99.34 of Title 34 of the Code of Federal Regulations, applying the Family Educational Rights and Privacy Act, should a Lakeshore student seek to enroll in another college or university to complete a course or degree, Lakeshore may share personally identifiable data with that college or university's education officials without the student's prior approval. Lakeshore may also share personally identifiable information with college officials who have a legitimate educational interest.

Officials of the college are defined as:

- Persons employed by the school in an administrative, supervisory, academic, research, or staff position.
- Persons serving on school governing bodies.
- Persons employed by or under contract to the college to perform a specific task, such as an attorney or auditor.
- An official has legitimate educational interest if they need to:
 - Perform duties specified in their job description or under terms of contractual agreement.
 - Provide campus services related to a student such as advising, financial aid, and counseling.
 - Conduct tasks related to a student's education or campus discipline.

Lakeshore maintains a record of all releases of student records. Students may forward questions concerning FERPA or request to view a copy of what was shared with other colleges by contacting the Executive Director of Student Affairs at 920.693.1733. Student data information may be used by the college under allowed exceptions in accordance with the respective laws.

The student has 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
US Department of Education
600 Independence Avenue, S.W.
Washington, DC 20202-4605**

For more information on FERPA, please visit the website for the Department of Education at ed.gov.

ACCOMMODATIONS FOR RELIGIOUS BELIEFS

In accordance with Wisconsin Statutes of 38.04(16) Ch 14, the Civil Rights Act of 1964, and Title IV, students with sincerely held religious beliefs may request reasonable accommodations for attendance, academic work, and/or examinations to observe religious holidays or services or to preform religious

requirements. Students must submit the Accommodation for Religious Belief Request form at least five (5) business days prior to the dates accommodations are requested. It is strongly recommended that requests be submitted earlier. Accommodations staff will communicate the accommodation determination to the student and faculty. Religious Accommodation plans are valid for one (1) semester and should include all dates impacted during the time frame.

Accommodations for Religious Beliefs contact information: 920.693.1120 (TTY 711) or nicole.yang@lakeshore.edu

ALCOHOL POLICY FOR LAKESHORE STUDENTS

Lakeshore recognizes that the misuse and abuse of alcohol and other chemicals is a serious health problem affecting every aspect of human life. On-campus use or possession of alcohol is prohibited.

Lakeshore and the Wisconsin Technical College System Board policy forbid the expenditure of student activity fees for alcoholic beverages. These expenditures include the activity fee transfers that are allocated to student organizations each semester. All college-sponsored activities (using tax dollars and/or activity fees) must be open to all students regardless of age. Alcoholic beverages are also forbidden at off-campus college-sponsored activities. The consumption of alcoholic beverages is prohibited during the scheduled time of an educational field trip. The advertising of alcoholic beverages is prohibited on college property and in college publications.

BULLETIN BOARDS

Bulletin boards are located throughout the campus upon which announcements of interest to students will be posted. Students should check bulletin boards regularly. All items to be posted need to be submitted to Student Success Welcome Center for prior approval. Once approved, Lakeshore staff will post in appropriate locations.

CARE TEAM

The CARE (Concern, Assessment, Response, and Evaluation) Team serves the Lakeshore community by evaluating and responding to disruptive, troubling, or threatening behaviors brought to the attention of the Team. As a part of this work the team also seeks to help identify members of the Lakeshore community who are in need of support, guidance, or other intervention and to refer them to appropriate campus and community resources. This interdisciplinary team provides a centralized system for faculty, staff, students, and parents to refer high-risk student situations. The ultimate objective is to assist students and our community to move from a state of distress and increased risk to a condition of safety and security.

The CARE Team works together to:

- Address concerns of students' well-being or behavior that may be harmful to oneself, others, or is disruptive or threatening.
- Regularly monitor, review, and appropriately respond to reports received via email, incident reports or other regarding potentially harmful, threatening, or disruptive student behavior.
- Triage all notifications of student behavior concerns to identify threat level and/or appropriate action.
- Provide outreach, consultation, appropriate assessment, and/or referral for issues related to

concerning student behaviors.

- Create a unified reporting and tracking system that allows the CARE Team to observe patterns of behavior and document the discussion, intervention, and recommended plan for identified students.

Anyone can refer a student to the CARE Team via the online care referral form, or cm.maxient.com/reportingform.php?LakeshoreTC&layout_id=2, including Lakeshore employees, students, family members, and others who believe a student might benefit from additional resources and support. Referrals are reviewed during normal business hours and are not monitored after hours, on weekends, or during official college holidays. For emergency or urgent situations involving immediate risk or threat to safety, security, or health, please call 911.

COMPUTER-USE POLICY FOR COLLEGE STUDENTS

The computing and telecommunicating networks, computing equipment, and computing resources of Lakeshore College (hereinafter “College”) are owned by the College. The College’s technical resources are provided for the benefit of the College and its employees and students. These resources are provided for use in the pursuit of College business or College education. Use of College technical resources is a privilege, not a right, as such, the following rules and regulations apply to all users. Additional procedures may be adopted by various divisions/departments to meet specific administrative or academic needs. Any adopted requirements must be in compliance with applicable federal and state laws, and this policy.

Regulatory Limitations

Without prior notice, the College may monitor use of the equipment and networking structures and all systems for legitimate academic, administrative, and business reasons, including:

1. To ensure the security and operating performance of systems and networks.
2. To ensure appropriate academic and school related use of equipment/materials.
3. To enforce College policies.

Monitoring includes the right of the College to access messages and files which have been deleted, but not fully erased from systems. Legitimate academic, administrative, or business reasons include, but are not limited to, the right to inspect the contents of electronic messages or files in the course of an investigation prompted by evidence of violation of a College policy or as necessary to locate substantive information which is not readily available through other means. The contents of electronic communications files and records obtained for legitimate academic, administrative, or business needs may be disclosed within the College District, without the permission of student, to those with an essential need to know, as well as to law enforcement and regulatory agencies.

Notwithstanding the right of the College to view, retrieve, and read any and all electronic messages, records, or files within College systems; electronic messages, records, and files must otherwise be treated as confidential by students and accessed only by the author or intended recipient. Students may not attempt to gain access to another person's electronic messages, records, or files without authorization or the permission of the person.

- A. The College reserves the right to limit access to all equipment, networks, and resources when federal or state laws or College policies are violated, or when College contractual obligations or College operations may be impeded.

- B. The College may authorize confidential passwords or other secure entry identification; however, students are to have no expectation of privacy in the material sent or received by them over the College computing systems or networks. While general content review will ordinarily not be undertaken, monitoring of this material may occur for the reasons specified above. Computer passwords are not and are not intended as a guarantee of confidentiality or privacy. Students may not use a password, access a file, or retrieve any stored information unless authorized to do so.

Each individual user is responsible for the proper use of his/her assigned account, including password security. Users must not share computer accounts or disclose access information to unauthorized persons.

- C. The College has the right to monitor and/or restrict material located on all college owned computing devices (computer, laptop, tablet PC, smartphone, etc.) whether or not such computers are attached or able to connect to campus networks. The College strictly prohibits the use of personal computing devices on the College's secure network.
- D. All material prepared and used for purposes and posted to or sent over College computing and other telecommunicating equipment, systems, or networks must be accurate and must correctly identify the author and receiver.
- E. No person shall make copies or distribute copyrighted material (e.g., software, database files, documentation, articles, graphic files, music, movies, and downloaded information) through the email system or by any other means unless you have written permission from the author of those materials. Illegal copies of software may not be run on any District computer. The Technology Services staff will take the necessary action to prevent violations of this requirement. Students are responsible for any and all liability resulting from violation of this prohibition. Failure to comply with this rule may result in disciplinary action by the college as well as legal action by the copyright owner.
- F. The College is not responsible for the loss of data or interference with files which may occur in the course of maintenance of networks or equipment.
- G. The College is not responsible for lost or deleted files which have been saved on any type of media.

Permissible Use

Students are required to adhere to this policy and any related College rules, regulations, and procedures for work produced on computing equipment, systems, and networks. Students may access these technologies for academic, administrative, and school related uses, if the following restrictions are followed:

- A. The use is lawful under federal or state law.
- B. The use is not prohibited by the College or institutional policies.
- C. The use does not damage or overload College computing equipment or systems, or otherwise harm or negatively impact the systems' performance.
- D. The use does not conflict with copyright or trademark law.
- E. The use does not result in commercial gain or private profit (other than as allowable under College intellectual property policies).
- F. The use does not state or imply College sponsorship or endorsement.
- G. The use does not violate state or federal laws or College policies against race or sex discrimination, including, but not limited to, racial slurs, gender specific comments, comments on sexual orientation, or sexual harassment.
- H. The use does not involve unauthorized passwords, identifying data, or any other action

that attempts to circumvent, disable, or overload system security, or in any way attempts to gain unauthorized access.

- I. The use does not involve activities which interfere with or disrupt network users, services, or equipment, to include, but not limited to:
 - 1. Distribution of unsolicited advertising or mass mailings;
 - 2. Propagation of computer worms or viruses; and
 - 3. Downloading and/or running any destructive or disruptive programs on College computer systems.
- J. The use does not involve accessing or attempting to access by "hacking" or any other unauthorized entry, materials, information, resources, communication devices, or the files of other users, which the student reasonably understands to be restricted to persons other than the student. Intentional interception of any electronic communication is considered unauthorized access and may violate the Electronic Communications Privacy Act.
- K. The use does not involve in any manner disabling or inactivating virus scanning software or restrictive filters.

Illegal Activity

- A. Any illegal use of the network, or its use in support of such activities, is strictly prohibited.
- B. Illegal activities are defined as a violation of local, state, and/or federal laws.
- C. The submission, publication, or transmission of information or data of any type for the purpose of planning, preparing, or engaging in criminal activity of any type is strictly prohibited.
- D. College officials will report actual or suspected criminal conduct to law enforcement authorities.

Viewing or Distributing Obscene or Pornographic Materials

- A. Students may not intentionally access, download, store, or transmit obscene or pornographic sites, materials, files, or messages through the College District Information Systems or using any College District computing and telecommunicating networks, equipment, or computing resources to include, but not limited to, any sites, materials, messages, or files, which:
 - 1. Contain adult oriented or pornographic images, written materials, or discussions;
 - 2. Are restricted to adults or persons age 21 or over because of adult oriented sexual or violent content
 - 3. Contain sexually explicit images or materials of any type, to include images of the human body which depict nudity or sexual excitement, as well as actual or simulated sexual acts. Conduct of this character is not and will not be recognized as appropriate or authorized use of College computing equipment, information systems, and networks for personal, academic, administrative, or business purposes.
- B. Violation of this section, paragraph A, will result in disciplinary action as stated under "Suspension of Privileges by Executive Director of Student Affairs".

Suspension of Privileges by Executive Director of Student Affairs

- A. The College's VP of Student Success or the College's Manager of Technology may suspend a student's access privileges for as long as necessary to protect the College's computing resources. As soon as practicable following the suspension, the Executive Director of Student Affairs must take the following actions:
 - 1. The student must be provided with notice of the computing resources suspension and the reasons for it.
 - 2. The student must be given an opportunity to meet with the Executive Director of

Student Affairs to discuss the suspension if the student requests it.

3. Following the meeting, the student must be notified that the student may appeal to the Executive Director of Student Affairs' immediate supervisor if the student is dissatisfied with the outcome of the meeting.
- B. The Executive Director of Student Affairs may suspend computing privileges as a disciplinary sanction following adjudication under the student code of conduct.

Violation of Policy

- A. Any violation of this policy will be considered "misconduct" under the College's [Student Code of Conduct](#) (13) Misuse of Computing Resources. Violations should be reported as provided under the Code.
- B. Violations of federal or state law may be referred for criminal or civil prosecution.

Application of Public Records Law

All information created or received for work purposes and contained in College computing equipment files, servers, or electronic mail (email) depositories are public records owned by the college and are available to the public unless an exception to the Wisconsin Public Records Law applies. This information may be purged and destroyed only in accordance with the College records retention schedule.

COMPLAINTS

Complaints are related to federal and state laws that define an individual's legal rights. Lakeshore recognizes two categories of complaints:

- Harassment/Discrimination Complaints (Equal Educational Opportunity)
- Sexual Harassment/Misconduct Complaints (Title IX)

Harassment or Discrimination

Federal and state laws including, but not limited to, Title VI, Title II of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and Title IX, prohibit harassment and discrimination.

Harassment is when someone's speech or actions are severe, pervasive, or targeted in a way that hinders a student's ability to get an education, significantly harms their well-being, substantially interferes with their rights, or intimidates the student because of their identity. Harassment can happen on its own or alongside other forms of discrimination.

Discrimination is when a person or an organization limits a student's equal education opportunities based on their membership in a protected class as defined by federal and state laws.

Retaliation is an act or series of acts that punish a student for asserting their right to be free from discrimination and harassment.

All student complaints alleging harassment, discrimination, or retaliation shall be reported to the Educational Support Services Manager located in the Student Success Division at Lakeshore. All employee complaints shall be reported to the Executive Director of Human Resources, located in the Human Resources Department at Lakeshore College.

Upon receiving a formal complaint, Lakeshore will take prompt action to investigate the complaint and

take corrective action to eliminate the discrimination.

Complaints for harassment/discrimination contact information: 920.693.1858 (TTY 711) or tanya.boman@lakeshore.edu

Sexual Harassment

Title IX is a federal law that prohibits sexual harassment in educational programs. Sexual harassment is a broad term that includes the traditional definition of sexual harassment, sexual violence, and any other sex-based misconduct including relationship violence. Sexual harassment includes, but is not limited to, the following: sexual harassment, stalking, sexual assault, domestic violence, hostile environment, and other act of sexual violence.

All sexual harassment and misconduct shall be reported to the Title IX Coordinator as soon as possible. The Title IX coordinator is located in the Student Success Division at Lakeshore College, 1290 North Avenue, Cleveland, WI 53015.

Upon receiving a formal complaint, Lakeshore College will take prompt action to eliminate the sexual harassment or misconduct, prevent its recurrence, and address its effects.

cm.maxient.com/reportingform.php?LakeshoreTC&layout_id=3
[Prohibition of Sexual Harassment under Title IX Policy](#)

CONCERNS

Students are encouraged to use the following procedure to report concerns. A concern is any written expression of dissatisfaction about the College that is not a complaint. For example, harassment/discrimination (EEO) and sexual harassment/ misconduct complaints (Title IX). Concerns may involve a Lakeshore faculty or staff member, administrator, another student, facilities, services, etc. To submit a concern about the campus please complete a Questions, Concerns and Suggestions form located at: cm.maxient.com/reportingform.php?LakeshoreTC&layout_id=6

Student concerns will be addressed via the following procedure:

Step 1

Student completes and submits the Questions, Concerns and Suggestions form. The form is available online at cm.maxient.com/reportingform.php?LakeshoreTC&layout_id=6.

Step 2

The Executive Director of Student Affairs will contact the student to gather any information regarding the concern that has been raised. The Executive Director of Student Affairs will also make every attempt to meet with the other party/parties related to the shared concern to gather additional information.

Step 3

The Executive Director of Student Affairs will attempt to resolve the concern by scheduling a meeting with the parties involved, if necessary. Executive Director of Student Affairs will serve as a neutral third party during this meeting which is designed to follow a process to resolve the concern informally. The goal of the mediation process is to provide a resolution to the concern that is acceptable to both parties. If a meeting is deemed to not be necessary, the Executive Director of Student Affairs will relay the concern and all related information to the individual or campus office that is best positioned to address and resolve the concern.

Step 4

If the mediation meeting fails to resolve the matter, it will be referred to one of two Vice Presidents for a final decision. If instructional in nature, the Vice President of Instruction would be the final step in the process. If the matter involves anything other than instruction concerns, the Vice President of Student Success would be the final step in the process.

CAMPUS POLICE & SECURITY

Lakeshore employs part-time police and security officers to support safety needs on campus.

CRIME AWARENESS & CAMPUS SECURITY (CLERY ACT)

Lakeshore is committed to maintaining a safe and secure environment on campus. As part of the Crime Awareness and Campus Security Act of 1990, the college provides complete information about security awareness, crime prevention, crime reporting, crime statistics, and other related policies. This information is communicated annually to students and staff, through the Annual Security Report.

EQUAL OPPORTUNITY

Lakeshore College does not discriminate against protected classes, including but not limited to race, color, national origin, religion, sex, or gender – including sexual orientation, gender identity, gender expression, disability or age in employment, admissions, or its programs or activities. To handle inquiries regarding Lakeshore's nondiscrimination policies, contact the Vice President of Student Success Tanya Boman for students at 920.693.1858, tanya.boman@gotoltc.edu or the Executive Director of Human Resources for staff/others at 920.693.1139, Marissa.Holst@lakeshore.edu. Lakeshore College, 1290 North Avenue, Cleveland, WI 53015. (TTY 711) [Lakeshore Equal Opportunity Statement](#)

FREEDOM OF EXPRESSION

Freedom of thought, inquiry, speech, and lawful assembly are fundamental rights of all persons. These rights include the freedom to express opinions; to hear, express and debate various views, no matter how unpopular; and to voice criticism. Free speech is uniquely important to Lakeshore as it brings about a free interchange of ideas integral to the College's fundamental mission of teaching, research, and public service.

The College encourages students to present ideas, express their individuality and culture, and be open to thoughts or lifestyles that differ from their own. The College expects all students will present themselves in a respectful manner that does not endanger, threaten, or infringe on the rights of others. The College also expects students will not conduct themselves in a manner that will infringe on another individual's education or the mission of the College. Students that fail to meet these expectations can be referred to the Student Conduct Process.

HAZARDOUS WASTE & CHEMICAL EXPOSURE

Some classes, such as chemistry and physics, may present the possibility for exposure to substances which have the potential for health hazards. Faculty teaching such a class will include in the class syllabus specific information pertaining to potential exposure and appropriate safety information will be presented to reduce the risk.

Any persons present near chemicals (including hazardous waste) should realize that they are voluntarily exposing themselves to these substances. Precautions, such as changing routes so as not to pass near the hazardous exposure areas or delaying enrolling or not enrolling in a class, may be necessary. These precautions are especially important for people with sensitive medical conditions which could make exposure to the substance mentioned above especially dangerous. Women who are in their first trimester of pregnancy should avoid exposure.

Any time the potential exists for exposure to substances; protective clothing will be required.

MILITARY SERVICE MEMBER SPECIAL CIRCUMSTANCES READMISSION & REFUND POLICY

Students who serve in the National Guard, Reserves, or Active Duty stationed locally who are ordered into active military service in the Armed Forces of the United States or who are requested to work for the federal or state government during a national emergency, limited national emergency, or state emergency are provided priority readmission upon their return. Individuals in these circumstances will be eligible for 100% refund of tuition and fees for the current term.

Students who are forced to withdraw from classes due to the activation of a close family member (father, mother, stepfather, stepmother, spouse or life-partner) are provided priority readmission upon their return. Individuals in these circumstances will be eligible to submit a refund appeal request citing military activation as the extenuating circumstance. This appeal, if granted, may result in a 100% refund of tuition and fees.

Individuals seeking a refund of tuition and fees are required to provide a copy of the activation orders to the campus Executive Director of Student Affairs.

Students who choose to stay enrolled and/or complete their coursework may do so in consultation and with permission from their instructor(s).

MINORS ON CAMPUS POLICY

The scope of this policy includes minors on campus who are either unaccompanied or accompanied by an adult. This policy does not include minors on campus who are participating in an educational offering or course/program-related needs. This policy does not apply to the Lakeshore's Child Care Center.

Minors on campus in general

To protect the safety of minor visitors and to avoid disruptive behavior, minors accompanying employees, students, or visitors must be under the constant supervision of their responsible adult while on college property or on the site of any approved off-campus class or other college events. Employees of the College cannot take supervisory responsibility for any unattended minors. Minors are not permitted to be left unattended in any College facility at any time or left alone with an adult

that has not accompanied the minor to campus.

The College assumes no responsibility or liability for minors on College property or on the site of any approved off-campus class or other college events, nor for any accidents or injuries to minors occurring on College property.

Employees, students, or visitors who bring minors to the College are responsible for all aspects of the minor's behavior, including the minor's safety, and are financially responsible for any damages caused by the minor.

Minors are encouraged to come to campus for college-sanctioned activities specifically scheduled and designed for their benefit.

Exceptional circumstances (applicable to employees and students only)

Minors may be brought into a particular workplace or classroom setting, in exceptional circumstances, if prior written approval is granted by an authorized Lakeshore representative. The Lakeshore employee or student is still responsible for the minor's safety, behavior, and are financially responsible for any damages caused by the minor.

NON-REGISTERED INDIVIDUALS IN THE CLASSROOM

To preserve the integrity of the educational environment, non-registered individuals are not allowed in Lakeshore classrooms, labs, shops, or designated testing areas, except when the non-registered individuals are part of the instructional activities. Exceptions may be made in cases of emergencies and with prior approval from the Dean or their delegate.

POLITICAL ACTIVITIES ON COLLEGE PREMISES

The care, control, and management of the campus of the Lakeshore, at all locations, is vested within the College District Board and Office of the College President. The Colleges' Political Activities policy can be found [here](#).

REPORTING OF CRIMINAL ACTIONS

Individuals should dial 911 from Lakeshore campus phones in an emergency situation.

SOLOMON ACT

Congress in 1996 enacted a series of laws that address Military Recruiting and Reserve Officers' Training Corp (ROTC) Program Access to Students of Higher Education (commonly referred to as the "Solomon Amendment"). Under these laws, colleges must give recruiters access to their campuses and provide them with lists containing "student recruiting information" in order to help military recruiters meet congressionally mandated recruitment numbers. The Solomon Amendment overrides FERPA and gives the military the right to receive data designated as "student recruiting information." If an institution or its sub elements does not comply, the entire institution risks losing certain federal funds.

STANDARD OF EVIDENCE

Lakeshore uses the preponderance of evidence standard in all matters involving students. This includes student code of conduct (academic and non-academic), Title IX, and equity cases. The preponderance of evidence standard is defined as such that a party has shown that its version of facts, causes, damages, and fault is more likely than not to be the correct version.

STUDENT CODE OF CONDUCT

Nonacademic Misconduct

Nonacademic Conduct Subject to Disciplinary Action. Lakeshore may discipline a student for engaging in, attempting to engage in, or assisting others to engage in any of the following types of nonacademic misconduct:

- (1) **Aiding or Abetting.** Aiding, abetting, or procuring another person to violate any provision of the Student Code of Conduct.
- (2) **Alcohol.** Use, possession, presence, manufacture, distribution, or being under the influence of alcoholic beverages except as expressly permitted by law and College policy.
- (3) **Arson.** Individuals are prohibited from intentionally setting fires unless such action is part of a bona fide academic lesson or experience.
- (4) **Bullying and Cyberbullying.** Deliberate or intentional behavior, including behavior conducted on computers, cell phones, and other electronic devices, using words or actions, intended to cause fear, intimidation or harm. Bullying and cyberbullying may be repeated behavior and involve an imbalance of power.
- (5) **Dangerous Conduct.** Conduct that endangers or threatens the health or safety of oneself or another person.
- (6) **Disorderly Conduct.** No person may engage in violent, abusive, indecent, profane, boisterous, unreasonably loud, or otherwise disorderly conduct under circumstances in which the conduct tends to cause or provoke a disturbance, in college buildings or on college lands.
- (7) **Drugs.** Manufacturing, distribution, possession, use or being under the influence of any drug or controlled substance or being in possession of drug paraphernalia or equipment used to manufacture, grow, or distribute drugs or controlled substances.
- (8) **Failure to Comply.** Failure to comply with the directions of College officials or law enforcement officers acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so; refusal or failure to leave premises because of conduct prescribed by this code.
- (9) **False Information.** Acts of dishonesty, including but not limited to the following: Furnishing false information to the College, any College official, faculty member or office.
- (10) **Fire Alarms and Safety Equipment.** Tampering with fire alarms or safety equipment is prohibited. This is including, but is not limited to, fire hydrants, fire hoses, extinguishers, AED's, and fire alarm pull stations.
- (11) **Forgery or Falsification.** Unauthorized possession of or fraudulent creation, alteration, or misuse of any college or other governmental document, record, key, electronic device, or identification.
- (12) **Harassment.** Conduct defined in s. 947.013, Stats.
- (13) **Hazing.** Conduct defined in s. 948.51, Stats.
- (14) **Misuse of Computing Resources.** Conduct that involves any of the following:
 - (a) Failure to comply with laws, license agreements, and contracts governing college computer network, software, and hardware use.
 - (b) Use of college computing resources for unauthorized commercial purposes or personal gain.
 - (c) Failure to protect a personal password or college-authorized account.
 - (d) Breach of computer security, invasion of privacy, or unauthorized access to

college computing resources.

(e) Other violations of Lakeshore's Computer Use Policy for College Students.

- (15) **Noncompliance with Disciplinary Sanctions.** Conduct that violates a sanction, requirement, or restriction imposed in connection with previous disciplinary action.
- (16) **Retaliatory Acts** – A persons may not commit any adverse action against a person because they have reported harassment, filed a complaint, acted as a witness in the complaint or conduct ostracizing the person, pressuring the person to drop the complaint, providing false or misleading information, or engaging in conduct that may reasonably be perceived to affect adversely that person's educational, living, or work environment. Further violations include threatening, intimidating, or coercing the person, otherwise discriminating against any person for exercising their rights or responsibilities under this policy.
- (17) **Serious and Repeated Violations of Municipal Law.** Serious and repeated off-campus violations of municipal law.
- (18) **Sexual Assault.** Conduct defined in s. 940.225, Stats.
- (19) **Stalking.** Conduct defined in s. 940.32, Stats.
- (20) **Theft.** Attempted or actual theft of College property or the property of others.
- (21) **Unauthorized Entry or Use.** Unauthorized entry into or use of College buildings and grounds, including roofs, ledges, balconies; unauthorized erection or use on College property of any structures including but not limited to tents, huts, gazebos, shelters, platforms, and public address systems.
- (22) **Unauthorized Recording.** Any unauthorized use of electronic or other devices to make an audio or video record of any person while on College premises without his/her prior knowledge, or without his/her effective consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person.
- (23) **Unauthorized Use of or Damage to Property.** Unauthorized possession of, use of, tampering with, damage to, or destruction of College property or the property of others.
- (24) **Violation of Criminal Law.** Conduct that constitutes a criminal offense as defined by state or federal law.
- (25) **Violation of College Rules.** Conduct that violates any published college rules, regulations, or policies, including provisions contained in college contracts with students including program handbooks.
- (26) **Weapons or Dangerous Items.** Possession or use of firearms, explosives, dangerous chemicals, or other dangerous weapons or instruments on College premises or use of any such item unless part of an approved academic activity (This includes but is not limited to BB guns, Airsoft guns, Mace, switchblades and knives, or swords with blades over four inches).

Disciplinary Procedure:

- (1) **Process.** The Executive Director of Student Affairs may proceed in accordance with this section to impose, subject to hearing and appeal rights, one or more of the disciplinary sanctions listed under "disciplinary sanctions."
- (2) **Conference with Student.** When the Executive Director of Student Affairs concludes that proceedings under this section are warranted, the Executive Director of Student Affairs shall promptly contact the student in person, by telephone, or by electronic mail to offer to discuss the matter with the student. The purpose of this discussion is to permit the Executive Director of Student Affairs to review with the student the basis for his or her belief that the student

engaged in nonacademic misconduct, and to afford the student an opportunity to respond. If the student does not respond to the Executive Director of Student Affairs' offer to discuss the matter, the Executive Director of Student Affairs may proceed to make a determination on the basis of the available information.

(3) Determination by the Investigating Officer that No Disciplinary Sanction is Warranted. If, as a result of a discussion or review of available information, the Executive Director of Student Affairs determines that nonacademic misconduct did not in fact occur, or that no disciplinary sanction is warranted under the circumstances, the matter will be considered resolved without the necessity for further action.

(4) Process Following Determination by the Executive Director of Student Affairs that Nonacademic Misconduct Occurred.

(a) If, as a result of a discussion or review of available information, the Executive Director of Student Affairs determines that nonacademic misconduct did occur and that one or more of the disciplinary sanctions listed under should be recommended, the Executive Director of Student Affairs shall prepare a written report which shall contain all of the following:

1. A description of the alleged misconduct.
2. A description of all information available to the college regarding the alleged misconduct. Such information shall be available to the student upon request, except as may be precluded by applicable state or federal law.
3. Specification of the sanction to be imposed.
4. Notice of the student's right to an appeal.
5. A copy of this code of conduct and of the institutional procedures adopted to implement this section.

(b) The written report shall be delivered to the student.

(c) A student who receives a written report under this section has the right to appeal, as described in the following section, to contest the determination that nonacademic misconduct occurred, the choice of disciplinary sanctions, or both.

1. Where the disciplinary sanction sought is one of those listed (a) to (h), and if the student desires a hearing, the student shall file a written request with the Executive Director of Student Affairs within 10 days of the date the written report is delivered to the student. If the student does not request a hearing within this period, the determination of nonacademic misconduct shall be regarded as final, and the disciplinary sanction sought shall be imposed.
2. Where the disciplinary sanction sought is one of those listed (i) to (j), the Executive Director of Student Affairs shall forward a copy of the written report under to the Vice President of Student Success. The Vice President for Student Success shall, upon receipt of the written report, proceed to schedule a hearing on the matter. A hearing shall be conducted unless the student waives, in writing, the right to such a hearing.

Hearing:

- (1)** A student who requests an appeal hearing, or for whom a hearing is required, shall have the right to decide whether the matter will be heard by the Vice President of Student Success or a hearing committee. If the student does not request a hearing, the matter will be heard by the Vice President of Student Success.
- (2)** If a student requests a hearing, or a hearing is required to be scheduled due to the sanction being sought, the Vice President of Student Success shall take the necessary steps to convene the hearing and shall schedule it within 15 days of receipt of the request or written report. The

hearing shall be conducted within 45 days of receipt of the request or written report, unless a different time period has been mutually agreed upon by the student and the Executive Director of Student Affairs.

- (3)** No less than 5 days in advance of the hearing, the Vice President of Student Success or hearing committee shall obtain from the Executive Director of Student Affairs, in writing, a full explanation of the facts upon which the determination of misconduct was based, and shall provide the student with access to or copies of the Executive Director of Student Affairs' explanation, together with any other materials provided to the Vice President of Student Success or hearing committee by the Executive Director of Student Affairs.
- (4)** The hearing shall be conducted in accordance with the following guidance and requirements:
 - (a)** The hearing process shall further the educational purposes and be reflective of the college's commitment to student dignity, equity, and non-discrimination. The process need not conform to state or federal rules of criminal or civil procedure.
 - (b)** The student shall have the right to question adverse witnesses, the right to present information and witnesses, the right to be heard on his or her own behalf, and the right to be accompanied by an advisor of the student's choice. The advisor may be a lawyer. The advisor may counsel the student, but may not directly question adverse witnesses, present information, or witnesses, or speak on behalf of the student except at the discretion of the hearing examiner or committee. In accordance with the educational purposes of the hearing, the student is expected to respond on his or her own behalf to questions asked of him or her during the hearing.
 - (c)** The Vice President of Student Success or hearing committee:
 - 1. Shall admit information that has reasonable value in proving the facts, but may exclude immaterial, irrelevant, or unduly repetitious testimony.
 - 2. Shall observe recognized legal privileges (confidentiality).
 - 3. May take reasonable steps to maintain order, and to adopt procedures for the questioning of a witness appropriate to the circumstances of that witness's testimony, provided, however, whatever procedure is adopted, the student is allowed to effectively question the witness.
 - (d)** The Vice President of Student Success or hearing committee shall make a record of the hearing. The record shall include a verbatim record of the testimony, which may be a sound recording, and a file of the exhibits offered at the hearing. The student charged with misconduct may access the record, upon the student's request.
 - (e)** The hearing examiner or committee shall prepare written findings of fact and a written statement of its decision based upon the record of the hearing.
 - (f)** A Vice President of Student Success's or hearing committee's finding of nonacademic misconduct shall be based on one of the following standards of evidence:
 - 1. Clear and convincing evidence, when the sanction to be imposed is listed in Disciplinary Sanctions (1) (i) to (j).
 - 2. A preponderance of the evidence, when the sanction to be imposed is listed in Disciplinary Sanctions (1) (a) to (h).
 - 3. A preponderance of the evidence, regardless of the sanction to be imposed, in all cases of sexual harassment and sexual assault.
 - (g)** The Vice President of Student Success or hearing committee may impose one or more of the disciplinary sanctions listed (a) to (h) that differs from the recommendation of the Executive Director of Student Affairs. Disciplinary sanctions listed (i) to (j) may not

be imposed unless previously recommended by the Executive Director of Student Affairs.

- (h) The hearing shall be conducted by the Vice President of Student Success or hearing committee, and the college's case against the student shall be presented by the Executive Director of Student Affairs or his or her designee.
- (i) The decision of the Vice President of Student Success or hearing committee shall be prepared within 14 days of the hearing and delivered to the student. The decision shall become final within 14 days of the date on the written decision unless an appeal to the College President is taken.
- (j) If a party fails to appear at a scheduled hearing and to proceed, the Vice President of Student Success or hearing committee may either dismiss the case or, based upon the information provided, find that the student committed the misconduct alleged and assign sanction.
- (k) Disciplinary hearings are subject to the Wisconsin open meetings law and may be closed if the student whose case is being heard requests a closed hearing or if the hearing examiner or committee determines that it is necessary to hold a closed hearing, as permitted under the Wisconsin open meetings law. Deliberations of the committee shall be held in closed session, in accordance with s. 19.85, Stats. As such, proper notice and other applicable rules shall be followed.

Appeal to the College President:

- (1) Where the sanction prescribed by the hearing examiner or committee is one of those listed in Disciplinary Sanctions (i) to (j), the student may appeal to the College President within 14 days of the date of the written decision to review the decision of the hearing examiner or committee, based upon the record. In such a case, the College President has 30 days from receipt of the student's appeal to respond and shall sustain the decision of the nonacademic misconduct hearing examiner or committee unless the College President finds any of the following:
 - a. The information in the record does not support the findings or decision of the hearing examiner or committee.
 - b. Appropriate procedures were not followed by the nonacademic misconduct hearing examiner or committee and material prejudice to the student resulted.
 - c. The decision was based on factors proscribed by state or federal law.
- (2) If the President makes a finding, the President may return the matter for consideration by a different hearing examiner or hearing committee or may invoke an appropriate remedy of his or her own.

Discretionary Appeal to the Wisconsin Technical College System Board: The decision of the college shall be final, except that the WTCS board may, at its discretion, grant a review upon the record.

Settlement: The procedures set forth in this chapter allow the college and a student to enter into a settlement agreement regarding the alleged misconduct, after proper notice has been given. Any such agreement and its terms shall be in writing and signed by the student and the Executive Director of Student Affairs or Vice President of Student Success. The case is concluded when a copy of the signed agreement is delivered to the student.

Effect of Discipline Within the Institution: A student who, at the time of commencement, is subject to a continuing disciplinary sanction or unresolved disciplinary charges as a result of a report, shall

not be awarded a degree during the pendency of the sanction or disciplinary proceeding.

Petition for Restoration of Rights After Suspension or Expulsion: (for both academic and nonacademic misconduct) An individual who has been suspended may petition to have his or her student status, rights, and privileges restored before the suspension has expired by its own terms.

An individual who has been expelled may petition for readmission after a minimum of two years from the date of expulsion. The petition shall be in writing and directed to the College President. The College President shall make the readmission decision.

Emergency Suspension:

- (1) The College President may impose an emergency suspension on a student, pending final institutional action on a report of nonacademic misconduct, in accordance with the procedures of this section.
- (2) The College President may impose an emergency suspension on a student when all of the following conditions are met:
 - a. The Executive Director of Student Affairs has made a reasonable attempt to offer the student the opportunity for discussion, either in person or by telephone.
 - b. The Executive Director of Student Affairs recommends a sanction of suspension or expulsion.
 - c. The College President concludes, based on the available information, that the misconduct likely occurred and that the student's continued presence on campus meets one or more of the following conditions:
 1. Would constitute a potential for serious harm to the student.
 2. Would constitute a potential for serious harm to others.
 3. Would pose a threat of serious disruption of college-run or college-authorized activities
 4. Would constitute a potential for serious damage to college facilities or property.
- (3) If the College President determines that an emergency suspension is warranted under sub. (2), he or she shall promptly have written notification of the emergency suspension delivered to the student. The College President's decision to impose an emergency suspension shall be effective immediately when delivered to the student and is final.
- (4) Where an emergency suspension is imposed, the hearing on the underlying allegations of misconduct shall be held, either on or outside of college lands, within 21 days of the imposition of the emergency suspension, unless the student agrees to a later date.
- (5) An emergency suspension imposed in accordance with this section shall be in effect until the decision in the hearing on the underlying charges pursuant to is rendered or the College President rescinds the emergency suspension. In no case shall an emergency suspension remain in effect for longer than 30 days unless the student agrees to a longer period.
- (6) If the College President determines that none of the conditions specified above are present, but that misconduct may have occurred, the case shall proceed in accordance with published disciplinary procedure.

Potential Responses to Student Nonacademic Misconduct: Disciplinary Sanctions:

- (1) The disciplinary sanctions that may be imposed for nonacademic misconduct, upon conclusion of the disciplinary process, are any of the following:
 - a. A written reprimand.
 - b. Denial of specified college privileges.
 - c. Payment of restitution.
 - d. Educational or service sanctions, including community service.
 - e. Disciplinary probation.
 - f. Imposition of reasonable terms and conditions on continued student status.
 - g. Removal from a course in progress.
 - h. Enrollment restrictions on a course or program.
 - i. Suspension from the college.
 - j. Expulsion from the college.
- (2) One or more of the aforementioned disciplinary sanctions may be imposed for an incident of nonacademic misconduct.
- (3) Disciplinary sanctions shall not include the termination or revocation of student financial aid; however, this shall not be interpreted as precluding the individual operation of rules or standards governing eligibility for student financial aid under which the imposition of a disciplinary sanction could result in disqualification of a student for financial aid.
- (4) Suspension and expulsion:
 - a. A student who has been suspended or expelled from the college will forfeit any payment that has been made on their student account. The individual will be responsible for making payment on any outstanding account balance.
 - b. The individual will receive a final grade for enrolled class(es) based on current points earned out of total possible points at the time of suspension or expulsion.
 - c. During the suspension and expulsion period, the individual is prohibited from being on college campuses, events, and activities. Any individual found to be in violation of this may result in a trespass action, if necessary.
 - i. A petition process is available for those with a need to be on campus or attend college related events and activities during this period. The petition must be sent in writing and pre-approved by the Vice President of Student Success or Executive Director of Student Affairs.

Academic Misconduct

Academic misconduct subject to disciplinary action:

- (1) The definition of academic misconduct is an act in which a student:
 - a. Seeks to claim credit for the work or efforts of another without authorization or citation;
 - b. Uses unauthorized materials or fabricated data in any academic exercise;
 - c. Forges or falsifies academic documents or records;
 - d. Intentionally impedes or damages the academic work of others;
 - e. Engages in conduct aimed at making false representation of a student's academic performance; or
 - f. Assists other students in any of these acts.
- (2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or

assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

Disciplinary Sanctions:

- (1) The following are the disciplinary sanctions that may be imposed for academic misconduct.
 - a. An oral reprimand;
 - b. A written reprimand presented only to the student;
 - c. An assignment to repeat the work, to be graded on its merits;
 - d. A lower or failing grade on the particular assignment or test;
 - e. A lower grade in the course;
 - f. A failing grade in the course;
 - g. Removal of the student from the course in progress;
 - h. A written reprimand to be included in the student's disciplinary file;
 - i. Removal from their academic program of study;
 - j. Disciplinary probation; or
 - k. Suspension or expulsion from the college.
- (2) One or more of the disciplinary sanctions listed in sub. (1) may be imposed for an incident of academic misconduct.

Disciplinary Sanction Imposed at the Discretion of the Instructor:

- (1) Where an instructor concludes that a student enrolled in one of his or her courses has engaged in academic misconduct in the course, the instructor will follow the following procedure to impose a sanction listed in (1) (a) through (f).
 - (a) CONFERENCE WITH STUDENT. When an instructor concludes that proceedings under this section are warranted, the instructor shall promptly offer to discuss the matter with the student. The purpose of this discussion is to permit the instructor to review with the student the basis for his or her belief that the student engaged in academic misconduct, and to afford the student an opportunity to respond.
 - (b) DETERMINATION BY THE INSTRUCTOR THAT NO ACADEMIC MISCONDUCT OCCURRED. If, as a result of the discussion, the instructor determines that academic misconduct did not in fact occur or that no disciplinary sanction is warranted under the circumstances, the matter will be considered resolved without the necessity for further action or a written report.
 - (c) DETERMINATION BY THE INSTRUCTOR THAT ACADEMIC MISCONDUCT OCCURRED
 - i. If, as a result of the discussion, the instructor determines that academic misconduct did occur, the instructor shall prepare a written report so informing the student, which shall contain the following:

1. A description of the misconduct;
 2. Specification of the sanction recommended;
 - ii. The written report shall be emailed to the student via their campus email account.
 - iii. The instructor will submit a CARE report for academic misconduct and include the written report sent to student in step i.
 - iv. The Executive Director of Student Affairs will reach out to the student to provide the following:
 1. Notice of the student's right to appeal the decision to the Division Dean; and
 2. A copy of the institutional procedures adopted to implement this section.
 - v. A student who receives a disciplinary sanction under this section has the right to appeal the decision of the instructor to the Division Dean to contest the determination that academic misconduct occurred, or the disciplinary sanction imposed, or both. If the student desires to appeal, the student must file a written request with the Division Dean within 10 days of personal delivery or mailing of the written report. If the student does not request a hearing within this period, the determination of academic misconduct shall be regarded as final, and the disciplinary sanction recommended shall be imposed.
- (2)** Where an instructor concludes that a student enrolled in one of his or her courses has engaged in academic misconduct in the course, the instructor will follow the following procedure to impose a sanction listed in (1) (g) through (h):
- (a)** The instructor will proceed as above but will also send a copy of the report to the Division Dean.
 - (b)** The instructor will inform the student that, because of the recommended sanction, the case will be heard, and a decision rendered by the Dean.
 - (c)** The Dean will review the information provided by the instructor and will meet with the student to discuss the case.
 - (d)** If, as a result of the discussion, the Dean determines that academic misconduct did not in fact occur or that no disciplinary sanction is warranted under the circumstances, the matter will be considered resolved without the necessity for further action.
 - (e)** If the Dean determines that misconduct has occurred, the Dean will:
 - i. Determine the appropriate sanction(s) for the offense. The sanction can be any listed in (1) (a) through (h). If the Dean determines that the appropriate sanction, is one listed in (1) (i) through (j), they will refer the matter to the Vice President for Instruction as outlined below.
 - ii. Inform the student of their decision via their campus email account.
 - (f)** A student who receives a disciplinary sanction under this section has the right to appeal the decision of the Dean to the Vice President of Instruction to contest the determination that academic misconduct occurred, or the disciplinary sanction imposed, or both. If the student desires to appeal, the student must file a written request with the Vice President of Instruction within 10 days of personal or email delivery or mailing of the written report. If the student does not request a hearing within this period, the determination of academic misconduct shall be regarded as final, and the disciplinary sanction recommended shall be imposed.

- (3)** Where an instructor concludes that a student enrolled in one of his or her courses has engaged in academic misconduct in the course, and the instructor or the Division Dean has determined that a sanction listed in (1) (i) through (j) is warranted, the following procedure will be followed:
- (a)** The instructor/Dean will proceed as above but will also send a copy of the report to the Vice President of Instruction.
 - (b)** The instructor/Dean will inform the student that, because of the recommended sanction, the case will be heard, and a decision rendered by the Vice President of Instruction.
 - (c)** The Vice President of Instruction will review the information provided by the instructor/Dean and will meet with the student to discuss the case.
 - (d)** If, as a result of the discussion, the Vice President of Instruction determines that academic misconduct did not in fact occur or that no disciplinary sanction is warranted under the circumstances, the matter will be considered resolved without the necessity for further action.
 - (e)** If the Vice President of Instruction determines that misconduct has occurred, the Vice President will:
 - i.** Determine the appropriate sanction(s) for the offense. The sanction can be any listed in (1) (a) through (j). If the Vice President determines that the appropriate sanction is (1) (k), suspension or expulsion from the college, the Vice-President will present the case to the College President who will review the case and either confirm the recommended sanction or remand the case back to the Vice President for further review.
 - ii.** Inform the student of their decision via their campus email account
 - (f)** A student who receives a disciplinary sanction listed in (1) (i) through (k) under this section has the right to appeal the decision of the Vice President of Instruction to contest the determination that academic misconduct occurred, or the disciplinary sanction imposed, or both, to the academic misconduct hearing committee. The request for a hearing must be submitted to the Vice President of Student Success within 10 days of personal delivery or mailing of the written report. The Vice President of Student Success shall take the necessary steps to convene the hearing and shall schedule it within 15 days of receipt of the request. The hearing shall be conducted within 45 days of receipt of the request unless a different time period has been mutually agreed upon by the student and the College. If the student does not request an appeal hearing within this period, the determination of academic misconduct shall be regarded as final, and the disciplinary sanction recommended shall be imposed.

Hearing:

- (1)** If a student requests a hearing, the Vice President for Student Success will take the necessary steps to convene the academic misconduct hearing committee and shall schedule the hearing within 10 days of receipt of the request or written report, unless a different time period is mutually agreed upon between the college and the student.
- (2)** Reasonably in advance of the hearing, the committee shall obtain from the instructor or investigating officer, in writing, a full explanation of the facts upon which the determination of misconduct was based and shall provide a copy of the Academic Misconduct section of the Student Code of Conduct to the student.
- (3)** The hearing before the academic misconduct hearing committee shall be conducted in accordance with the following requirements:
 - a.** The student shall have the right to question adverse witnesses, the right to

present evidence and witnesses, and to be heard in his or her own behalf, and the right to be accompanied by a representative of his or her choice.

- b. The hearing committee shall not be bound by common law or statutory rules of evidence and may admit evidence having reasonable probative value, but shall exclude immaterial, irrelevant, or unduly repetitious testimony, and shall give effect to recognized legal privileges.
- c. The hearing committee shall make a record of the hearing. The record shall include a verbatim record of the testimony, which may be a sound recording, and a file of the exhibits offered at the hearing. Any party to the hearing may obtain copies of the record at his or her own expense. Upon a showing of indigency and legal need, a party may be provided a copy of the verbatim record of the testimony without charge.
- d. The hearing committee shall prepare written findings of fact and a written statement of its decision based upon the record of the hearing.
- e. The hearing committee may find academic misconduct and impose a sanction of suspension or expulsion only if the proof of such misconduct is clear and convincing. In other cases, a finding of misconduct must be based on a preponderance of the credible evidence.
- f. The hearing committee may impose a disciplinary sanction that differs from the recommendation of the instructor or investigating officer.
- g. The instructor or the investigating officer or both may be witnesses at the hearing conducted by the committee, but do not have responsibility for conducting the hearing.
- h. The decision of the hearing committee shall be served upon the student either by personal delivery or by first class United States mail and shall become final within 10 days of service.

Discretionary Appeal to the Wisconsin Technical College System Board: The decision of the college shall be final, except that the WTCS board may, at its discretion, grant a review upon the record.

Settlement: The procedures set forth in this chapter do not preclude a student from agreeing that academic misconduct occurred and to the imposition of a sanction, after proper notice has been given.

Right to Petition for Readmission: A student who has been expelled may petition for readmission, and a student who has been suspended may petition for readmission prior to the expiration of the suspension period. The petition for readmission must be in writing and directed to the president of the institution from which the student was suspended or expelled. The petition may not be filed before the expiration of one year from the date of the final determination in expulsion cases, or before the expiration of one-half of the suspension period in suspension cases.

TOBACCO/SMOKE-FREE CAMPUS POLICY

The Tobacco-Smoke Free Campus policy is part of the college's commitment to creating a healthy campus for all members of our campus community and is designed to be positive and supportive of overall health and well-being.

The Tobacco-Smoke Free Campus policy defines tobacco, smoking, or vapor products as including but not limited to all tobacco products including cigarettes, cigars, pipes, any devices used to smoke tobacco products, electronic cigarettes, vaporizers that are alternatives to smoking products, water

pipes, smokeless tobacco products such as, chewing, or dipping products, etc.

The use of tobacco, smoking, and vapor products is prohibited in all buildings and grounds owned or leased by Lakeshore. Individuals may use these products in their personal vehicles; however, improper disposal of cigarette butts or littering, smoking, or tobacco materials on campus grounds is prohibited.

Program Number 10-101-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Every business and industry, from movie-making to alternative energy, requires people-oriented, analytical, and creative thinkers to address accounting needs. As an accountant, you will have direct input regarding a company's financial health and profitability. A degree in accounting can be the key to rewarding and challenging opportunities in any field of interest.

PROGRAM OUTCOMES

- Process financial transactions throughout the accounting cycle.
- Evaluate financial information to support decision making.
- Process payroll.
- Perform cost accounting tasks.
- Perform income tax accounting tasks.
- Apply internal controls to minimize risk.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/finance/accounting>.

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/finance/accounting>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Applied Tax requires attending in person classes during the spring term at the Lakeshore Cleveland campus. Alternate VITA site locations for out-of-district students may be possible with instructor approval. All assessments must be proctored at an authorized testing site.

RELATED PROGRAMS

- Accounting Assistant Technical Diploma
- Tax Preparer Certificate

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10101111	Accounting 1*	4
10103121	Excel - Level 1*	1
10101122	Income Tax*	3
10102160	Business Law 1	3
10801136	English Composition 1	3
10804189	Introductory Statistics	3
		17
Term 2		
10101113	Accounting 2*	4
10101129	Applied Tax	1
10101128	Income Tax 2*	2
10101135	Payroll Accounting*	3
10101180	Spreadsheet Data Management*	2
10101182	Accounting Software Applications*	2
		14
Term 3		
10101115	Accounting 3*	4
10101125	Accounting Cost 1*	4
10101124	Auditing*	2
10801196	Oral/Interpersonal Communication	3
10809196	Introduction to Sociology	3
		16
Term 4		
10101118	Accounting 4*	2
10101126	Accounting Cost 2*	2
10101199	Accounting Capstone*	3
10809143	Microeconomics	3
10809198	Introduction to Psychology	3
		13
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING 1...provides the learner with the skills to understand and apply accounting principles and procedures useful in any business. Includes the accounting cycle for a service enterprise and a merchandising enterprise, chart of accounts, ledgers, accruals and deferrals, inventories, and internet controls.

ACCOUNTING 2...provides the learner with the skills to transition to more advanced accounting courses with emphasis given to notes and interest, forms of legal entities, stock transactions, depreciation methods, valuation, and financial analysis. PREREQUISITE: 10101111 Accounting 1

ACCOUNTING 3...introduces the learner to intermediate accounting concepts, principles, and applications. Includes financial statements, temporary investments, receivables, equities, current liabilities, present value, and fixed assets. PREREQUISITE: 10101113 Accounting 2

ACCOUNTING 4...expands the learner's ability to understand intermediate accounting concepts, principles, and applications, including long-term investments, bonds, leases, stockholders' equity, and time value of money. PREREQUISITE: 10101115 Accounting 3

ACCOUNTING CAPSTONE...provides the learner with the opportunity to synthesize the theory and processes learned in the Accounting program via capstone projects. This course is an exercise in professional analysis and preparedness - reemphasizing the need for professional communication. PREREQUISITES: 10101115 Accounting 3, 10101125 Accounting Cost 1, and 10101135 Payroll Accounting

ACCOUNTING COST 1...provides the learner with the skills to understand cost behavior and analysis emphasizing manufacturing enterprises including cost reports, job-order costing, process costing, joint products costing, standard costing and variance analysis. PREREQUISITE: 10101111 Accounting 1

ACCOUNTING COST 2...expands the learner's ability to understand accounting for manufacturing enterprises. Includes break-even analysis, differential costs, capital expenditures and budgeting. PREREQUISITE: 10101125 Accounting Cost 1

ACCOUNTING SOFTWARE APPLICATIONS...prepares the learner to transfer manual accounting skills to computerized accounting software. It includes company setup, expenditure cycle transactions, revenue cycle transactions, general journal transactions, payroll, bank reconciliations, end-of-period procedures, and customization of financial statements. PREREQUISITE: 10101111 Accounting 1 or 10101150 Office Accounting

APPLIED TAX...provides the opportunity for the learner to expand tax preparation skills acquired in the Income Tax course and apply those skills to real-life situations in preparing taxes for the local community through the IRS Volunteer Income Tax Assistance (VITA) program. Learners are required to gain certification from the IRS for the course. PREREQUISITE: 10101122 Income Tax

AUDITING...introduces the learner to the fundamentals of auditing. This course involves the evaluation of internal controls including methods of examination and evaluation of accounting records. These evaluations are used to provide objective data to support opinions on the fairness and reliability of accounting records. PREREQUISITE: 10101113 Accounting 2

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

INCOME TAX...introduces the learner to federal income tax laws and their underlying principles. Includes filing status, gross income (inclusions and exclusions), deductions and exceptions, tax forms and schedules, the computation of taxes, depreciation and completion of tax forms both manually and computerized.

INCOME TAX 2...expands the learner's ability to comprehend the principles of income tax law and calculate federal income tax for business using tax and practical problems. PREREQUISITE: 10101122 Income Tax

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

MICROECONOMICS...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. Discuss reading academic course support with your Counselor.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PAYROLL ACCOUNTING...introduces the learner to federal and state payroll laws, calculating for gross and net pay, preparing payroll deductions, maintaining payroll records, and processing payroll in both a manual and computerized setting and preparing quarter-end and year-end reports. COREQUISITE: 10101111 Accounting 1

SPREADSHEET DATA MANAGEMENT...provides the learner with intermediate skills to use spreadsheet software to solve accounting and business problems. It focuses on advanced functions and relates skill acquisition to accounting analysis and reporting needs. COREQUISITES: 10101111 Accounting 1 and PREREQUISITE: 10103121 Excel - Level 1 or equivalent

Program Number 31-101-1 Technical Diploma • Two Terms

ABOUT THE PROGRAM

The Accounting Assistant technical diploma will provide students with the skills and confidence necessary to perform entry-level bookkeeping and accounting work for local employers. Accounting Assistant majors may work in a small business and be responsible for various aspects of bookkeeping or work in a larger firm under the supervision of an accountant and specialize in a certain area.

PROGRAM OUTCOMES

- Process financial transactions throughout the accounting cycle.
- Evaluate financial information to support decision making.
- Process payroll.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/finance/accounting-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Applied Tax requires attending in person classes during the spring term at the Lakeshore Cleveland campus. Alternate VITA site locations for out-of-district students may be possible with instructor approval. All assessments must be proctored at an authorized testing site.

RELATED PROGRAMS

- Accounting Associate Degree
- Tax Preparer Certificate

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10101111	Accounting 1*	4
10103121	Excel - Level 1*	1
10101122	Income Tax*	3
10801136	English Composition 1	3
10102160	Business Law 1	3
10804189	Introductory Statistics	3
		17
Term 2		
10101113	Accounting 2*	4
10101129	Applied Tax	1
10101128	Income Tax 2*	2
10101135	Payroll Accounting*	3
10101180	Spreadsheet Data Management*	2
10101182	Accounting Software Applications*	2
		14
		TOTAL 31

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING 1...provides the learner with the skills to understand and apply accounting principles and procedures useful in any business. Includes the accounting cycle for a service enterprise and a merchandising enterprise, chart of accounts, ledgers, accruals and deferrals, inventories, and internal controls.

ACCOUNTING 2...provides the learner with the skills to transition to more advanced accounting courses with emphasis given to notes and interest, forms of legal entities, stock transactions, depreciation methods, valuation, and financial analysis.
PREREQUISITE: 10101111 Accounting 1

ACCOUNTING SOFTWARE APPLICATIONS...prepares the learner to transfer manual accounting skills to computerized accounting software. It includes company setup, expenditure cycle transactions, revenue cycle transactions, general journal transactions, payroll, bank reconciliations, end-of-period procedures, and customization of financial statements. PREREQUISITE: 10101111 Accounting 1 or 10101150 Office Accounting

APPLIED TAX...provides the opportunity for the learner to expand tax preparation skills acquired in the Income Tax course and apply those skills to real-life situations in preparing taxes for the local community through the IRS Volunteer Income Tax Assistance (VITA) program. Learners are required to gain certification from the IRS for the course. PREREQUISITE: 10101122 Income Tax

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

INCOME TAX...introduces the learner to federal income tax laws and their underlying principles. Includes filing status, gross income (inclusions and exclusions), deductions and exceptions, tax forms and schedules, the computation of taxes, depreciation and completion of tax forms both manually and computerized.

INCOME TAX 2...expands the learner's ability to comprehend the principles of income tax law and calculate federal income tax for business using tax and practical problems. PREREQUISITE: 10101122 Income Tax

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

PAYROLL ACCOUNTING...introduces the learner to federal and state payroll laws, calculating for gross and net pay, preparing payroll deductions, maintaining payroll records, and processing payroll in both a manual and computerized setting and preparing quarter-end and year-end reports. COREQUISITE: 10101111 Accounting 1

SPREADSHEET DATA MANAGEMENT...provides the learner with intermediate skills to use spreadsheet software to solve accounting and business problems. It focuses on advanced functions and relates skill acquisition to accounting analysis and reporting needs. COREQUISITES: 10101111 Accounting 1 and PREREQUISITE: 10103121 Excel - Level 1 or equivalent

Program Number 10-106-6 Associate Degree • Four Terms

ABOUT THE PROGRAM

Businesses depend on high-quality, accurate information. If you value organization, care about details, and understand the importance of clear communication and current technology skills, developing those talents as an administrative professional may be just what you need to succeed. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Manage administrative projects.
- Maintain internal and external relationships.
- Model professionalism in the workplace.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/administrative-professional>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
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Catalog No.	Class Title	Credit(s)
Term 1		
10801136	English Composition 1	3
10103191	Word - Level 1*	1
10103192	Word - Level 2*	1
10106101	Document Formatting*	1
10106132	Keyboard Speedbuilding*	1
10103161	PowerPoint - Level 1*	1
10106202	Computers and the Internet*	1
10103121	Excel - Level 1*	1
10103122	Excel - Level 2*	1
10106200	Intro to Filing Systems*	1
10106201	Applying Filing Systems*	1
10106203	Basic Office Equipment*	1
		14
Term 2		
10804189	Introductory Statistics	3
10801198	Speech 10801196 OR Oral/Interpersonal Communication	3
10106204	Professionalism and Work Skills*	1
10106205	Interacting with Others in the Workplace*	1
10106207	Web 2.0 for Business*	1
10106209	Introduction to Business Writing*	1
10106206	Leadership and Ethics*	1
10106208	HTML, CSS, and Web Design*	1
10106210	Intermediate Business Writing	1
10103101	Access - Level 1*	1
10116109	Career Planning and Networking*	1
10106211	Business Writing Applications*	1
		16
Term 3		
10809198	Introduction to Psychology	3
10102110	Introduction to Business*	3
10106212	Business Documents and Forms*	1
10106213	Business Web Applications*	1
10106167	Microsoft Office Integration*	3
10106172	MS Project*	2
10106174	Desktop Publishing*	2
		15
Term 4		
10809143	Microeconomics	3
10101150	Office Accounting*	3
10106192	Training Techniques*	2
10106223	Administrative Office Management*	3
10106222	Virtual Assistant Fundamentals*	1
10106135	Event Planning and Coordination	2
10106160	Internship - Administrative Professional	1
		15
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCESS - LEVEL 1...introduces students to the process of creating a database, building and populating a table, establishing table relationships, and creating queries, forms, and reports.

ADMINISTRATIVE OFFICE MANAGEMENT...prepares students to work with the advanced features of the Microsoft Office suite, as well as act as an employee in an office simulation environment. Students will build teams, study conflict resolution concepts, develop leadership skills, perform employee reviews, manage budgets, and explore lean culture concepts. Decision-making, professionalism, and work ethic are emphasized throughout the course.

APPLYING FILING SYSTEMS...applies the rules for paper and electronic filing systems; charge-out procedures, retention schedules, and transfer methods.

BASIC OFFICE EQUIPMENT...prepares the learner to work in office setting. The learner will be exposed to typical hardware found and software used in the office environment and gain the skills needed to be efficient on the job.

BUSINESS DOCUMENTS AND FORMS...introduces the learner to creating documents and forms using Microsoft, Google, and Adobe products.

BUSINESS WEB APPLICATIONS...provides the learner with skills to navigate Google and Microsoft collaboration tools including Google Meet, MS Teams, Google Extensions, Gmail, and Outlook.

BUSINESS WRITING APPLICATION...develop transcription and composition skills to create and process business documents.

CAREER PLANNING & NETWORKING...focuses on process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

COMPUTERS AND THE INTERNET...provides the learner with introductory knowledge and skills related to operating a computer on a network and computer storage and processing, digital security, privacy, and threats; computer components; storage; and procedures that prepare you to work alongside administrative leaders via real-world business scenarios. The learner will also evaluate internet service providers.

DESKTOP PUBLISHING...prepares the learner with the basic skills to use page layout software to create professional publications.

DOCUMENT FORMATTING...prepares the learner to keyboard and format business memorandums, letters and reports, and other business documents. Emphasis will be placed on proofreading and editing skills.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EVENT PLANNING & COORDINATION...prepares learner to manage preplanning activities for an event, coordinate equipment & facility setup, communicate with outside vendors/suppliers, and conduct follow-up activities. Each student required to participate in planning a real-life event and/or assisting an organization through a service learning experience.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

EXCEL - LEVEL 2...will explore Excel tables and charts, working with multiple worksheets and workbooks at once, creating applications and rules, protecting worksheets and workbooks and learning about macros and comments. COREQUISITE: 10103121 Excel – Level 1

HTML, CSS, AND WEB DESIGN...prepares the learner to write and modify code to create a simple business website and custom HTML emails.

INTERACTING WITH OTHERS...prepares the learner to identify different communication styles and strategies while working in a diverse environment. Learners will examine exemplary customer service skills.

INTERMEDIATE BUSINESS WRITING...refine and apply writing skills within the professional workplace. Proofread and edit business documents for appropriate content and clarity.

INTERNSHIP-ADMINISTRATIVE PROFESSIONAL...enhances the student's ability to apply technical skills, to work productively, to communicate effectively, and to demonstrate appropriate ethics and behavior in a professional workplace environment. PREREQUISITE: Verification of eligibility by the Internship Coordinator

INTRO TO BUSINESS WRITING...develop writing skills with a focus on effective communication within the professional workplace. Review grammar, punctuation, and word usage skills.

INTRODUCTION TO BUSINESS...provides an introduction to the world of business from both the organizational and managerial viewpoint. It examines areas of business including the business environment, business formation, planning, operations, accounting, marketing, human resource management, and building effective teams.

INTRODUCTION TO FILING SYSTEMS...introduces the fundamentals of managing the record and information life cycle; charge-out procedures; retention schedules; transfer methods; control measurements; imaging systems and information security.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to display data with graphs, describe distributions with numbers perform correlation and regression analyses, and design experiments. Use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA. Discuss math and reading academic course support with your Counselor.

KEYBOARD SPEEDBUILDING...prepares the learner with the skills to keyboard text with speed and accuracy using the "touch" method.

LEADERSHIP AND ETHICS...prepares learner to deal with conflict in the workplace while maintaining ethical standards. The learner will also identify leadership styles in the workplace.

MICROECONOMICS...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. Discuss reading academic course support with your Counselor.

MICROSOFT OFFICE INTEGRATION...will teach students the intermediate topics of Microsoft Office. Students will be presented with material covering the intermediate level of Microsoft Word, Microsoft Excel, Microsoft Access, and Microsoft PowerPoint. Emphasis will be on final projects using all of the software packages, especially Microsoft Access.

MS PROJECT...will teach students how to use the software MS Project as a tool to assist in project management. Creating tasks and a work breakdown structure, scheduling, assigning resources, tracking cost and schedule, leveling of resources, and communicating project details will be covered. In addition, standard project management phases will be covered.

OFFICE ACCOUNTING...introduces the learner to the principle of business and personal accounting, including journalizing, posting, year-end adjustments, report preparation and interpretation, payroll, and bank reconciliations.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

PROFESSIONALISM AND WORK SKILLS...prepares the learner to communicate effectively while developing and discussing critical work skills such as time and stress management, critical thinking, listening, and organization.

SPEECH...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. Discuss reading academic course support with your Counselor.

TRAINING TECHNIQUES...develops the skills necessary to present and provide support for training sessions, including organization of materials, procedures, and techniques.

VIRTUAL ASSISTANT FUNDAMENTALS...explores the virtual assistant industry to assist those wanting to use their administrative assistant skills while working in a traditional environment from a home office or an off-site office. Examines various roles and options to work in different industries. Also introduces client relationships, privacy, and ethical values.

WEB 2.0 FOR BUSINESS...provides a basic understanding of the web as well as the tools used to create blogs, web videos, and social media accounts for business use. Reviews social web tools and components.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

WORD - LEVEL 2...introduces the student to multi-column documents, templates, and the mail merge feature while applying WordArt, themes, styles, quick parts, and other advanced document formatting features. COREQUISITE: 10103191 Word - Level 1

Program Number 61-006-2
Certificate • 11 credits

ABOUT THE PROGRAM

Introduces the learner to the financial and economic impact of running a successful agribusiness operation. Introduces the learner to the financial and economic impact of running a successful agribusiness operation. Learners will also explore financial tools and gain an understanding of business management practices.

PROGRAM OUTCOMES

- Apply understanding of basic financial software
- Apply management practices in reaching goals and objectives
- Understand a business plan and Return On Investment

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/agribusiness-financial-basic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

These credits transfer into Lakeshore's Agriculture Management Technician Technical Diploma. Students may then enter the second year of the associate degree, Agribusiness Science & Technology.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Fall)		
10006202	Ag Employability and Professionalism*	3
10101150	Office Accounting*	3
		6
Term 2 (Spring)		
10006205	Agricultural Finance*	2
10809144	Macroeconomics	3
		5

TOTAL 11

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

AGRICULTURAL FINANCE...introduces the student to the basics of agricultural financial management including securing credit, working with financial statements (balance sheet, income statement, cash flows, owner equity) and investment analysis. Additionally, students will perform basic financial analysis, calculate depreciation, and prepare amortization schedules. Students will learn the basics of agricultural accounting and will practice using basic accounting software programs. **PREREQUISITE:** 10101150 Office Accounting

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 the macroeconomy is analyzed. **COREQUISITE:** Reading placement assessment or equivalent

OFFICE ACCOUNTING...introduces the learner to the principle of business and personal accounting, including journalizing, posting, year-end adjustments, report preparation and interpretation, payroll, and bank reconciliations.

Program Number 10-006-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Successful individuals employed in agribusiness occupations understand the importance of running efficient and profitable operations in the areas of records/business analysis, credit/marketing/purchasing, farm business transfers, goal setting, human relations, crop/soil management, and livestock nutrition/management. Maximize your opportunities for success by increasing your agricultural business and production management knowledge.

PROGRAM OUTCOMES

- Develop an agribusiness management plan.
- Apply economic and marketing strategies to agribusiness industry.
- Apply relevant technologies.
- Create a crop management plan.
- Create a livestock management plan.
- Investigate opportunities in agribusiness.
- Interact as a professional in agribusiness.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/agriculture-food-natural-resources/agribusiness-science-technology>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTES

- To experience technology and demonstrations in the industry and classroom, students should have transportation and participate in-person. Through PAS (Professional Agriculture Students), students participate in competitions and activities.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- Out-of-district students and working adults are able to take the program online, which also includes the expectation to complete assigned labs, technology exploration, and demonstrations.
- Graduates of the Dairy Herd Management program can earn their Dairy Business Management associate degree with one additional year of this Agribusiness Science and Technology program's coursework.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10006200	Introduction to Animal Science*	3
10006201	Introduction to Soil Science*	3
10006202	Ag Employability and Professionalism*	3
10101150	Office Accounting*	3
10006203	Nutrition Principles*	3

15
Term 2

10091122	Agricultural Industry Internship 1	1
10006205	Agricultural Finance*	2
10006206	Livestock Production Systems and Management*	2
10006207	Principles of Crop Production*	2
10809144	Macroeconomics OR 10809143 Microeconomics	3
10801196	Oral/Interpersonal Communications	3
10006208	Equipment, Structure, & Power Systems*	3

16
Term 3

10006209	Agriculture Sales and Consulting*	2
10804113	College Technical Math 1A OR 10804189 Introductory Statistics	3
10006210	Ag Product and Promotion*	3
10809198	Introduction to Psychology	3
10006211	Principles of Animal Breeding* OR 10006212 Agronomy Applications*	3
10006118	Agribusiness Internship**	1

15
Term 4

10006213	Agricultural Business Management*	3
10801136	English Composition 1	3
10006214	Agricultural Commodity Marketing*	3
10006215	Legal Aspects of Agribusiness* OR 10006216 Current Issues and Trends in Agriculture*	3
10006217	Advanced Technology in Crops Production* OR 10006218 Advanced Technology in Livestock Production*	3

15
TOTAL 61

*CBE delivery only

**All students (online and in-person) work with instructor to select an appropriate internship based on their career goals.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED TECHNOLOGY IN CROP PRODUCTION...provides experiences to the student in agronomy-based precision technologies. Topics covered include bioengineering, implementations of technology including drones, geographical information systems, variable rate technology, and other new automation designed to increase crop production efficiency.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

AG PRODUCT AND PROMOTION...prepares students to market and sell agricultural products. Topics include creating a marketing plan, promotion, branding, product pricing, marketing research and tools, budgeting and product positioning using the marketing mix. Furthermore, students will investigate alternative ag product markets and value-added agriculture.

AGRIBUSINESS INTERNSHIP...provides the student the opportunity to choose from a broad variety of occupational experiences in the agribusiness industry. Student will work with faculty to develop a plan and to identify, coordinate, and evaluate work-associated learning experiences as they relate to the major career focus of the student. **PREREQUISITE:** 10006122 Princ of Crop Production or 10006124 Princ of Animal Breeding or 10091103 Dairy Reproductive Mgt or **COREQUISITE:** 10006207 Princ of Crop Production or 10006211 Princ of Animal Breeding or 10091202 Dairy Reproductive Mgt

AGRICULTURAL BUSINESS MANAGEMENT...provides student with basic business management practices including the development of a business plan, establishment of short- and long-range goals, identification and implementation of alternatives for reaching goals, and development of strategies to monitor progress. The importance of designing a business mission statement based on goals is emphasized. **PREREQUISITE:** 10101150 Office Accounting

AGRICULTURAL COMMODITY MARKETING...provides the student with the fundamentals of agricultural commodity marketing including risk management, futures market structure and function, futures commodity contract specification, as well as futures trading procedures and strategies including hedging and options. Students will engage in practice commodity marketing using a real-world simulator and follow commodity markets and determine sources of variability affecting the futures prices.

AGRICULTURAL FINANCE...introduces the student to the basics of agricultural financial management including securing credit, working with financial statements (balance sheet, income statement, cash flows, owner equity) and investment analysis. Additionally, students will perform basic financial analysis, calculate depreciation, and prepare amortization schedules. Students will learn the basics of agricultural accounting and will practice using basic accounting software programs. **PREREQUISITE:** 10101150 Office Accounting

AGRICULTURAL INDUSTRY INTERNSHIP 1...provides the students with the ability and skills to perform industry expectations. Each student will be provided a checklist of skills based on area of interest in agriculture production and will work with their employer to complete those skills. **COREQUISITE:** 10006202 Ag Employability and Professionalism

AGRICULTURE SALES AND CONSULTING...prepares the student with the tools to become an effective salesperson, including pre-call planning, uncovering customer needs, conducting and completing a sale. Includes the fundamental principles of marketing agricultural products, pricing, merchandising and creating product marketing plans. Students will demonstrate effective communication skills needed to develop positive working relationships in agribusiness including team building, conflict resolution, and industry advocacy.

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EQUIPMENT, STRUCTURE, & POWER SYSTEMS...introduces the student to trends and opportunities in mechanized agriculture. Students will learn how to work with electrical power and processing, structures and environment, and soil and water conservation engineering practices. Additionally, students will learn operating principles and maintenance of gas and diesel engines used in agriculture.

INTRODUCTION TO ANIMAL SCIENCE...provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOIL SCIENCE...provides fundamentals of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrients and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion.

LEGAL ASPECTS OF AGRIBUSINESS...provides students with pertinent information of the legal liabilities and regulations of an agribusiness at the state and federal levels. Course content includes legal descriptions, contractual agreements, employee and consumer rights, insurance, debt collection, as well as bankruptcy and employment protection issues as regulated by DOL, OSHA and DWD.

LIVESTOCK PRODUCTION SYSTEMS AND MANAGEMENT...engages the student in the exploration and study of a variety of livestock management systems including feeding arrangements, health, marketing considerations, the use of computer systems, personnel issues, and financial impacts of management decisions. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10091200 Intro to Dairy Cattle Mgmt

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NUTRITION PRINCIPLES...introduces learner to the principles of nutrition as presented on a comparative species basis including characteristics, physiological functions, interrelationships, and deficiency symptoms as they pertain to carbohydrates, fats, proteins, mineral elements, and vitamins. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10006200 Intro to Animal Science or 10091200 Intro Dairy Cattle Mgmt

OFFICE ACCOUNTING...introduces the learner to the principle of business and personal accounting, including journalizing, posting, year-end adjustments, report preparation and interpretation, payroll, and bank reconciliations.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PRINCIPLES OF ANIMAL BREEDING...applies genetic principles and reproduction physiology to livestock improvement including elementary population genetics, phenotypic and genotypic effects of selection, selection methods, and systems of mating. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10091200 Intro to Dairy Cattle Mgmt

PRINCIPLES OF CROP PRODUCTION...introduces students to the basics about grain, fruit, and vegetable crop production. Course topics include crop and soil nutrient management, use of commercial and manure fertilizers, purchase or lease options for land, tillage and conservation plans, cropping plans, managing nutrient waste, crop harvest and storage, and production records.

**Program Number 31-006-2
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

If a career in agriculture is in your future, this program will help you to prepare to manage a successful agribusiness operation. You will gain experience in agricultural production management and technology, as well as management principles, finance, sales, economics, crop production, and animal fundamentals.

PROGRAM OUTCOMES

- Apply relevant technologies.
- Investigate opportunities in agribusiness.
- Interact as a professional in agribusiness.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/agriculture-food-natural-resources/agriculture-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTES

- To experience technology and demonstrations in the industry and classroom, students should have transportation and participate in-person. Through PAS (Professional Agriculture Students), students participate in competitions and activities.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- Out-of-district students and working adults are able to take the program online, which also includes the expectation to complete assigned labs, technology exploration, and demonstrations.
- Agriculture Management Technician graduates have the opportunity to complete Agribusiness Science and Technology Associate degree with one additional year of college.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10006200	Introduction to Animal Science*	3
10006201	Introduction to Soil Science*	3
10006202	Ag Employability and Professionalism*	3
10101150	Office Accounting*	3
10006203	Nutrition Principles*	3
		15
Term 2		
10091122	Agricultural Industry Internship 1**	1
10006205	Agricultural Finance*	2
10006206	Livestock Production Systems and Management*	2
10006207	Principles of Crop Production*	2
10809144	Macroeconomics	3
10801196	Oral/Interpersonal Communications	3
10006208	Equipment, Structure, & Power Systems*	3
		16
		TOTAL 31

*CBE delivery only

**All students (online and in-person) work with instructor to select an appropriate internship based on their career goals.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

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AGRICULTURAL INDUSTRY INTERNSHIP 1...provides the students with the ability and skills to perform industry expectations. Each student will be provided a checklist of skills based on area of interest in agriculture production and will work with their employer to complete those skills. **COREQUISITE:** 10006202 Ag Employability and Professionalism

EQUIPMENT, STRUCTURE, & POWER SYSTEMS...introduces the student to trends and opportunities in mechanized agriculture. Students will learn how to work with electrical power and processing, structures and environment, and soil and water conservation engineering practices. Additionally, students will learn operating principles and maintenance of gas and diesel engines used in agriculture.

INTRODUCTION TO ANIMAL SCIENCE...provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety.

INTRODUCTION TO SOIL SCIENCE...provides fundamentals of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrients and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion.

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NUTRITION PRINCIPLES...introduces learner to the principles of nutrition as presented on a comparative species basis including characteristics, physiological functions, interrelationships, and deficiency symptoms as they pertain to carbohydrates, fats, proteins, mineral elements, and vitamins. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10006200 Intro to Animal Science or 10091200 Intro Dairy Cattle Mgmt

OFFICE ACCOUNTING...introduces the learner to the principle of business and personal accounting, including journalizing, posting, year-end adjustments, report preparation and interpretation, payroll, and bank reconciliations.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PRINCIPLES OF CROP PRODUCTION...introduces students to the basics about grain, fruit, and vegetable crop production. Course topics include crop and soil nutrient management, use of commercial and manure fertilizers, purchase or lease options for land, tillage and conservation plans, cropping plans, managing nutrient waste, crop harvest and storage, and production records.

Program Number 10-601-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

This program provides the foundational knowledge and experience for a successful career in the Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) fields. This training prepares individuals to install, service, troubleshoot, and repair HVACR systems used for the environmental control of buildings and product processes. At successful completion of the degree, students should have the knowledge and skills to work on residential and commercial systems.

PROGRAM OUTCOMES

- Install HVACR components.
- Troubleshoot HVACR systems.
- Service HVACR systems.
- Evaluate HVACR system designs.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10601201	HVAC Foundations*	1
10601202	HVAC Duct Systems*	1
10601218	HVAC Piping Applications*	2
10804113	College Technical Mathematics 1A*	3
10442100	Safety and Welding Fundamentals*	1
10449114	Safety in the Workplace*	3
10601204	HVAC Electrical - Theory*	1
10601219	HVAC Electrical - Applications*	2
10601206	HVAC Heating Systems and Sizing*	1
10601216	HVAC Residential Furnace Installation*	2
10601208	HVAC Residential Furnace Startup*	1
		18
Term 2		
10601210	HVAC Air Conditioning - Theory*	1
10601220	HVAC Air Conditioning - Installation*	2
10601212	HVAC Air Conditioning - Startup*	1
10601221	HVAC Airflow - Principles*	3
10601213	HVAC Hydronic Heating Systems - Theory*	1
10601217	HVAC Hydronic Heating Systems - Installation*	2
10601215	HVAC Mini Split Systems*	1
10601222	HVAC Light Commercial Rooftop Units*	2
10601223	HVACR Refrigeration Applications*	3
		16
Term 3		
10601131	HVACR Energy Load	1
10601132	HVACR Motor Controls Applications	3
10601133	HVACR Electrical Controls for Buildings	3
10601135	HVACR Service Applications	1
10809144	Macroeconomics OR 10809143 Microeconomics	3
10801136	English Composition 1	3
		14
Term 4		
10601141	HVACR Sustainable Design and Installation	3
10601142	HVACR Advanced Controls	3
10601144	HVACR Capstone	1
10801196	Oral/Interpersonal Communication	3
10809198	Introduction to Psychology	3
		13
		TOTAL 61

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

COLLEGE TECHNICAL MATHEMATICS 1A...prepares student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

HVAC AIR CONDITIONING - INSTALLATION...allows the learner to apply their knowledge and air conditioning theory in a laboratory setting on actual air conditioning systems. Students will gain hands-on experience identifying and operating various air conditioning and various related appliance systems. COREQUISITE: 10601210 HVAC Air Conditioning – Theory

HVAC AIR CONDITIONING - STARTUP...permits the learner to commission a residential air conditioning system and apply their previous knowledge and skill to troubleshoot common cooling system faults as well as replace frequently damaged components. COREQUISITE: 10601220 HVAC Air Conditioning – Installation

HVAC AIR CONDITIONING - THEORY...explains the fundamental operating concepts of the refrigeration cycle. Common systems, components, and refrigerants will be discussed and the association between temperature and pressure of cooling systems will be explored.

HVAC AIRFLOW - PRINCIPLES...instructs the learner in evaluating and testing natural gas and propane heating appliances. Major components and controls are identified, and the proper methods of troubleshooting and diagnosing are learned and practiced. Evaluating proper airflow patterns, combustion safety, and system performance for systems are emphasized. The main objective is to assist the technician to work on a variety of gas-fired appliances when the course is completed.

HVAC DUCT SYSTEMS...introduces the learner to sheet metal layout and duct fabrication. Students will gain experience in the sheet metal fabrication lab and hone their skills in sheet metal HVAC fabrication. Alternative ducting materials such as fiberglass and fabric ducting will also be discussed

HVAC ELECTRICAL - APPLICATIONS...allows learners to apply the concepts learned in their Electrical Theory class. Learners will use multimeters to gain basic parameters and troubleshoot various HVAC electrical components. COREQUISITE: 10601204 HVAC Electrical–Theory

HVAC ELECTRICAL - THEORY...presents to the learner the basic electrical theory of Alternating and Direct Current. Students will study transformers, motors, and other HVAC specific electrical components.

HVAC FOUNDATIONS...provides students with the foundations of HVAC. Students will learn about the HVAC industry, the fundamentals of HVAC installation and service techniques, basic tools and, as well as trade mathematics. Professional licensure, certification, and various HVAC career paths will also be discussed.

HVAC HEATING SYSTEMS AND SIZING...focuses on the types of heating systems, forms of heat transfer and how they relate to the various HVAC heating systems in compliance with manual J. The basic operations of gas, oil, electric, and hydronic heating systems will be presented.

HVAC HYDRONIC HEATING SYSTEMS - THEORY...introduces learner to hydronic heating systems, where fluid (usually water) is used to transfer heat. The various heating sources (gas oil, or electricity) for heating the water boiler will be presented and discussed.

HVAC HYDRONIC HEATING SYSTEMS-INSTALLATION...continues the student's hydronic heating education to include practical application with in-floor heating systems, radiators, boilers, and other common hydronic systems and components. COREQUISITE: 10601213 HVAC Hydronic Heating Systems – Theory

HVAC MINI SPLIT SYSTEMS...introduces students to the various components that make up these systems and will be able to install, troubleshoot, and service this equipment per manufacturer's instructions.

HVAC PIPING APPLICATIONS...presents to learners the copper, PVC, flexible, and black iron piping practices. Students will learn the skills to measure, cut, form, and connect various HVAC piping materials. This course will include extensive practice with threading, press fitting, brazing, and gluing practices for piping applications.

HVAC RESIDENTIAL FURNACE INSTALLATION...allows hands-on application of the knowledge learned in the heating systems theory class. Students will be identifying the various heating system components and differentiating the various heating systems. COREQUISITES: 10601206 HVAC Heating Systems and Sizing, 10601202 HVAC Duct Systems, and 10601218 HVAC Piping Applications

HVAC RESIDENTIAL FURNACE STARTUP...permits learner to commission various heating systems and apply their previous knowledge and skill to troubleshoot common heating system faults as well as replace frequently damaged components. COREQUISITES: 10601219 HVAC Electrical Applications and 10601216 HVAC Residential Furnace Installation

HVACR ADVANCED CONTROLS...provides the learner with the skills to analyze, set up, and troubleshoot three-phase motor starting systems, damper actuators, and economizers and conduct advanced service and troubleshooting of commercial HVACR systems including rooftops and split systems. Exploring the components of a direct digital control (DDC) and pneumatic control system are a priority. The student becomes familiar with analog and binary inputs and outputs. COREQUISITES: 10601132 HVACR Motor Controls Applications and 10601133 HVACR Electrical Controls for Buildings

HVACR CAPSTONE...provides the HVACR student the opportunity to work with industry professionals to perform installation, service, and repair of heating, air conditioning, and/or refrigeration systems in residences or light commercial establishments. COREQUISITES: 10601141 HVACR Sustainable Design & Installation, 10601142 HVACR Advanced Controls, and 10601223 HVACR Refrigeration Applications

HVACR ELECTRICAL CONTROLS FOR BUILDINGS...engages the learner in the physical laws that apply to electronic circuits. Direct Current (DC) covers basic definitions of voltage, current, and resistance. Alternating Current (AC) includes an introduction to AC generation, capacitors, inductors, and transformers and their applications in electronic circuits. Additional topics include control circuits, symbols, diagrams, protection devices, relays, thermostats, single-phase motors, control components, energy management systems and troubleshooting ACR system wiring diagrams. Building Automation will also be covered. COREQUISITES: 10601219 HVAC Electrical-Applications and 10601221 HVAC Airflow Principles

HVACR ENERGY LOAD...develop the learner's skills to do residential heating and cooling heat loads. Students will calculate heat loss and the losses or gains due to infiltration, sun loads, etc. The student will do calculations using ACCA industry standard form J-1 and will learn to explain factors affecting heat loss or gained in a structure.

HVACR LIGHT COMMERCIAL ROOFTOP UNITS...reviews components of light commercial rooftop (5 ton and smaller) units with and without economizers. Learners will troubleshoot system components, identify programs, and implement corrective actions. COREQUISITE: 10601208 HVAC Residential Furnace Startup

HVACR MOTOR CONTROLS APPLICATIONS...provides the learner analyze and troubleshoot single-phase AC induction motors, DC motors, and motor starting components used in the HVACR industry with an emphasis on refrigeration/air conditioning compressor motors and components. COREQUISITE: 10601219 HVAC Electrical – Applications

HVACR REFRIGERATION APPLICATIONS...provides instruction in refrigeration system piping, load calculation, sizing, and component selection. Training also covers service, troubleshooting, and the repair of commercial refrigeration systems including walk-in coolers/freezers, reach-in coolers/freezers, and ice machines. COREQUISITE: 10601212 HVAC Air Conditioning – Startup

HVACR SERVICE APPLICATIONS...provides the learner the opportunity to function in the role of a service technician. This includes interpreting control system diagrams, analyzing control circuits, and servicing and troubleshooting residential and commercial fossil fuel heating systems as well as rooftop and split systems. Practices include documenting service call findings, recommending repair procedures, and drafting an estimate for system repair. COREQUISITES: 10601132 HVACR Motor Control Applications, 10601133 HVACR Electrical Controls for Buildings, and 10601222 HVACR Light Commercial Rooftop Units

HVACR SUSTAINABLE DESIGN AND INSTALL...engages the learner in the design and selection of modern hydronic heating systems and geothermal heat pumps. This course studies connections of components, energy-efficient operating systems, and open- and closed-loop geothermal heat pump systems. Systems include heat sources, piping and fittings, circulating pumps, heat emitters, radiant panel heating, distribution piping, expansion tanks, air removal, and auxiliary loads. The student performs sizing, layout, and design of complete systems. COREQUISITES: 10601216 HVAC Residential Furnace Installation and 10601212 HVAC Air Conditioning-Startup

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

**Program Number 31-404-3
Technical Diploma • Four Terms**
ABOUT THE PROGRAM

Most of us place great value on owning and operating our own vehicles. Our independence stems from our ability to jump in our cars and trucks and go wherever we want, whenever we want. When our independence is threatened because our vehicles aren't working properly, the first person we seek is a qualified automotive maintenance technician. If you're mechanically talented, like to solve problems, and enjoy working with people, success in the automotive maintenance field may be just down the road for you.

PROGRAM OUTCOMES

- Demonstrate professionalism appropriate for the auto service industry
- Perform maintenance and repair of automotive steering and suspension systems
- Perform maintenance and repair of automotive brake systems
- Perform maintenance and repair of automotive electrical and electronic systems
- Perform maintenance and repair of automotive internal combustion engines
- Perform maintenance and repair of automotive transmission/transaxle systems
- Perform maintenance and repair of automotive manual drive train and axle systems
- Perform maintenance and repair of automotive heating and air conditioning systems
- Perform maintenance and repair of engine performance systems

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/transportation-distribution-logistics/automotive-maintenance-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTES

This program is certified by ASE (Automotive Service Excellence). Students are well-prepared to take the ASE Exam.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31404200	Auto Orientation and Safety*	1
31404201	Electrical Principles 1: Basics*	1
31404202	Electrical Principles 2: Ohm's Law*	1
31404203	Electrical Principles 3: DC Circuits*	1
31404204	Electrical Principles 4: Troubleshooting*	1
31404213	Auto Mechanical Hand and Torque Tools*	1
31404212	Auto Mechanical Measuring and Instruments*	1
31404240	Hydraulic and Mechanical Brake Systems*	1
31404242	Disc and Drum Brakes*	1
31404241	Electronic Brake Control Systems*	1
10442100	Safety and Welding Fundamentals*	1
31404306	Auto Body Applications for Mechanics*	1
		12
Term 2		
31404205	Electrical Principles 5: Batteries Lighting*	1
31404206	Electrical Principles 6: Wire Repair*	1
31404207	Electrical Principles 7: Relay Circuits*	1
31404208	Electrical Principles 8: Starting Charging*	1
31404243	Steering, Suspension, Inspection, Repair*	1
31404244	Advanced Steering & Suspension Systems*	1
31404245	Wheel Alignment and Tire Service*	1
31404246	Engine Repair Cylinder Head*	1
31404247	Engine Repair Engine Block*	1
31404248	Engine Cooling Systems*	1
31404249	Engine Repair Mechanical Systems*	1
31404250	Engine Lubrication Systems*	1
		12
Term 3		
31404209	Electrical Principles 9: Anti-Theft Systems*	1
31404210	Electrical 10: Auto Data Network Systems*	1
31404211	Electrical 11: Auto Entertainment Systems*	1
31404251	Manual Drivetrain Fluid Service*	1
31404252	Manual Clutch and Transmission Systems*	1
31404253	Manual, Four-Wheel, and AWD Drivetrains*	1
31404254	Axles and Differentials*	1
31404255	Auto HVAC Controls*	1
31404256	Auto HVAC Systems and Service*	1
31404221	Auto Engine Performance 1: Sensors*	1
31404222	Auto Engine Performance 2: Ignition Systems*	1
31404223	Auto Engine Performance 3: Fuel Systems*	1
		12
Term 4		
31404224	Auto Engine Performance 4: Controls Systems*	1
31404225	Auto Engine Performance 5: Hybrid Systems 1*	1
31404226	Auto Engine Performance 6: Hybrid Systems 2*	1
31404227	Auto Engine Performance 7: Diesel Operation*	1
31404228	Auto Engine Performance 8: Diesel Emissions*	1
31404229	Auto Engine Performance 9: Induction System*	1
31404230	Auto Engine Performance 10: EVAP and PCV*	1
31404231	Auto Engine Performance 11: Emissions*	1
31404257	Auto Transmission Service*	1
31404258	Auto Transmission Transaxle Diagnoses*	1
31404259	Auto Transmission Transaxle Replacement*	1
31404260	Auto Transmission Transaxle Rebuild*	1
		12
		TOTAL 48

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED STEERING AND SUSPENSION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of power steering and steering linkage and suspension components. This is part of the ASE A4 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO BODY APPLICATIONS FOR MECHANICS......introduces the mechanic student to the common auto collision repair topics experienced in a maintenance shop. Concepts include adhesives, window regulators, panel scratch repair and polishing, plastic repair, and panel alignment.

AUTO ENGINE PERFORMANCE 1: SENSORS......provides the student with the skills and knowledge to work with sensors that are common in automotive applications. Student will learn sensor construction, operation, and diagnosis skills including strategy-based diagnostics and oscilloscope use. Part of the ASE A8 Certification. PREREQUISITE: 31404327 Auto Electrical Systems 6 or COREQUISITE: 31404211 Electrical 11: Auto Entertainment Systems

AUTO ENGINE PERFORMANCE 10: EVAP AND PCV......provides the student with the skills and knowledge to perform diagnosis and repair of EVAP and PCV systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404229 Auto Engine Performance 9: Induction Systems

AUTO ENGINE PERFORMANCE 11: EMISSIONS......provides the student with the skills and knowledge to perform diagnosis and repair of catalytic converters, AIR, and EGR systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404230 Auto Engine Performance 10: EVAP and PCV

AUTO ENGINE PERFORMANCE 2: IGNITION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of ignition systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404327 Auto Electrical Systems 6 or COREQUISITE: 31404221 Auto Engine Performance 1: Sensors

AUTO ENGINE PERFORMANCE 3: FUEL SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of fuel supply and delivery systems. This is part of the ASE A8 Certification. PREREQ: 31404327 Auto Electrical Systems 6 or COREQ: 31404222 Auto Engine Performance 2: Ignition Systems

AUTO ENGINE PERFORMANCE 4: CONTROLS SYSTEMS......provides the student with the skills and knowledge to perform diagnosis of computerized engine control system. This is part of the ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404223 Auto Engine Performance 3: Fuel Systems

AUTO ENGINE PERFORMANCE 5: HYBRID SYSTEMS 1......provides the student with the knowledge and skills associated with hybrid motor and battery operations and testing. This is part of ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404224 Auto Engine Performance 4: Control Systems

AUTO ENGINE PERFORMANCE 6: HYBRID SYSTEMS 2......provides the student with the skills and knowledge to survey manufacturer-specific hybrid systems. This is part of ASE A8 Certification. PREREQUISITE: 31404329 Auto Engine Performance 1 or COREQUISITE: 31404225 Auto Engine Performance 5: Hybrid Systems

AUTO ENGINE PERFORMANCE 7: DIESEL OPERATION......provides the student with the knowledge and skills associated with diesel engine and fuel system operation and diagnosis. This is part of ASE A9 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404226 Auto Engine Performance 6: Hybrid Systems

AUTO ENGINE PERFORMANCE 8: DIESEL EMISSIONS......provides the student with the skills and knowledge to diagnose diesel emission systems. This is part of ASE A9 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404227 Auto Engine Performance 7: Diesel Operation

AUTO ENGINE PERFORMANCE 9: INDUCTION SYSTEM......provides the student with the skills and knowledge to perform diagnosis and repair of air induction systems. This is part of the ASE A8 Certification. PREREQUISITE: 31404333 Auto Engine Performance 2 or COREQUISITE: 31404228 Auto Engine Performance 8: Diesel Emissions

AUTO HVAC CONTROLS......provides the student with the skills and knowledge to perform diagnosis of HVAC control systems. This is part of the ASE A7 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO HVAC SYSTEMS AND SERVICE......provides the student with the skills and knowledge to perform refrigerant recovery, recycling, and handling procedures. Student will perform AC system component replacement and diagnosis. This is part of the ASE A7 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO MECHANICAL HAND AND TORQUE TOOLS......prepares learner to use automotive hand and torque tools.

AUTO MECHANICAL MEASURING AND INSTRUMENTS......provides the student with the measuring skills and knowledge for the automotive servicing industry.

AUTO ORIENTATION AND SAFETY......prepares the learner to work effectively and efficiently in the automotive lab. Shop safety and proper procedures are emphasized.

AUTO TRANSMISSION SERVICE......provides the student with the skills and knowledge to perform basic automatic transmission and transaxle diagnosis and fluid service. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE DIAGNOSES......provides the student with the skills and knowledge to perform advanced automatic transmission/transaxle diagnosis. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE REBUILD......provides the student with the skills and knowledge to perform transmission/transaxle rebuilding procedures. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AUTO TRANSMISSION TRANSAXLE REPLACEMENT......provides the student with the skills and knowledge to remove and reinstall an automatic transmission/transaxle. This is part of the ASE A2 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

AXLES AND DIFFERENTIALS......provides the student with the skills and knowledge to perform diagnosis and repair of differential assemblies and drive axles. This is part of ASE A3 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

DISC AND DRUM BRAKES......provides the student with the skills and knowledge to perform diagnosis and repair of disc and drum brake systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ELECTRICAL 10: AUTO DATA NETWORK SYSTEMS......provides student with the skills and knowledge related to computer networks. Students will learn system construction, operation, and diagnosis skills. This is part of the ASE A6 Certification. PREREQ: 31404326 Auto Basic Elect 5 or COREQ: 31404209 Elect Principles 9: Anti-Theft Systems

ELECTRICAL 11: AUTO ENTERTAINMENT SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of automotive entertainment systems. This is part of the ASE A6 Certification. PREREQUISITE: 31404326 Auto Basic Electrical 5 or COREQUISITE: 31404210 Electrical 10: Auto Data Network Sys

ELECTRICAL PRINCIPLES 1: BASICS......provides the student with the skills and knowledge to summarize basic electrical principles. This is part of the ASE A6 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety

ELECTRICAL PRINCIPLES 2: OHM'S LAW......provides the student with the skills and knowledge to summarize electrical principles associated with Ohm's Law. This is part of the ASE A6 Certification. COREQUISITE: 31404201 Electrical Principles 1: Basics or PREREQUISITE: 31404311 Auto Electrical Math 1

ELECTRICAL PRINCIPLES 3: DC CIRCUITS......provides the student with the skills and knowledge to summarize electrical flow associated with DC Circuits. This is part of the ASE A6 Certification. COREQUISITE: 31404202 Electrical Principles 2: Ohm's Law

ELECTRICAL PRINCIPLES 4: TROUBLESHOOTING......provides the student with the skills and knowledge to diagnose, service, and repair automotive circuits. This is part of the ASE G1 Certification. COREQUISITE: 31404203 Electrical Principles 3: DC Circuits

ELECTRICAL PRINCIPLES 5: BATTERIES LIGHTING......provides the student with the skills and knowledge to diagnose analogue lighting and automotive batteries. This is part of the ASE G6 Certification. COREQUISITE: 31404204 Electrical Principles 4: Troubleshooting or PREREQUISITE: 31404313 Auto Electricity Fundamentals 3

ELECTRICAL PRINCIPLES 6: WIRE REPAIR......provides the student with the skills and knowledge to perform basic electrical testing procedures. This is part of the ASE G1 Certification. COREQUISITE: 31404205 Electrical Principles 5: Batteries Lighting or PREREQUISITE: 31404313 Auto Electricity Fundamentals 3

ELECTRICAL PRINCIPLES 7: RELAY CIRCUITS......provides the student with the skills and knowledge to diagnose relay-controlled circuits. This is part of the ASE A6 Certification. COREQUISITE: 31404206 Electrical Principles 6: Wire Repair or PREREQUISITE: 31404323 Auto Wiring Mechanics 4

ELECTRICAL PRINCIPLES 8: STARTING CHARGING......provides the student with the skills and knowledge to diagnose, service, and repair automotive charging and starting systems. This is part of the ASE G1 Certification. COREQUISITE: 31404207 Electrical Principles 7: Relay Circuits or PREREQUISITE: 31404323 Auto Wiring Mechanics 4

ELECTRICAL PRINCIPLES 9: ANTI-THEFT SYSTEMS......provides the student with the skills and knowledge to perform diagnosis of anti-theft and security systems. Student will perform module reprogramming procedures. This is part of the ASE A6 Certification. PREREQUISITE: 31404323 Auto Wiring Mechanics 4 or COREQUISITE: 31404208 Electrical Principles 8: Starting Charging

ELECTRONIC BRAKE CONTROL SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of electronic brake control systems. This is part of the ASE A5 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE COOLING SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of the cooling systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE LUBRICATION SYSTEMS......provides the student with the skills and knowledge to perform diagnosis and repair of engine lubrication systems. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR CYLINDER HEAD......provides the student with the skills and knowledge to perform service procedures on the engine cylinder head. This is part of the ASE A1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR ENGINE BLOCK......provides the student with the skills and knowledge to perform service procedures on the engine block. This is part of the ASE A1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ENGINE REPAIR MECHANICAL SYSTEMS......provides the student with the skills and knowledge to perform engine mechanical diagnosis procedures. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

HYDRAULIC AND MECHANICAL BRAKE SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair of master cylinders, brake lines, and brake power assist units. This is part of the ASE A5 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQ: 31404213 Auto Mech Hand & Torque Tools or PREREQ: 31404303 Auto Mech Hand & Torque Tools

MANUAL CLUTCH AND TRANSMISSION SYSTEMS......provides student with the skills and knowledge to perform diagnosis and repair clutch and manual transmission systems. Part of the ASE A3 Certification. COREQUISITE: 31404200 Auto Orient & Safety or PREREQUISITE: 31404301 Auto Orient & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

MANUAL DRIVETRAIN FLUID SERVICE......provides the student with the skills and knowledge to perform fluid service, diagnosis and repair. This is part of the Maintenance and Light Repair ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

MANUAL, FOUR-WHEEL, AND AWD DRIVETRAINS......provides the student with the skills and knowledge to perform diagnosis and repair of manual transmissions, transaxles, as well as four-wheel and all-wheel drive systems. This is part of the ASE A3 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

SAFETY AND WELDING FUNDAMENTALS......introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

STEERING, SUSPENSION, INSPECTION, REPAIR......provides student with the skills and knowledge to perform diagnosis and repair of steering and suspension components. This is part of the ASE A4 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

WHEEL ALIGNMENT AND TIRE SERVICE......provides the student with the skills and knowledge to perform diagnosis and repair of wheel and tire systems, including wheel alignment, inspection, and repair. This is part of the ASE G1 Certification. COREQUISITE: 31404200 Auto Orientation & Safety or PREREQUISITE: 31404301 Auto Orientation & Safety and COREQUISITE: 31404213 Auto Mech Hand & Torque Tools or PREREQUISITE: 31404303 Auto Mech Hand & Torque Tools

ABOUT THE PROGRAM

You've read the scrolling captions for the hearing-impaired on your TV screen. The person providing instantaneous text of programs is trained in realtime transcription techniques and technology. These skills can also be used to provide CART (Communication Access Realtime Translation) for hearing-impaired students in educational as well as public settings. If you're an excellent listener, have strong language and communication skills, are committed to accuracy and able to work on deadline, a career in broadcast captioning may be a perfect fit for your talents.

PROGRAM OUTCOMES

- Develop proficiency in machine shorthand using realtime theory.
- Develop a personal dictionary and job dictionary to aid in the realtime translation using CAT (computer-aided transcription) software.
- Demonstrate knowledge of proper captioning procedures and responsibilities for broadcast and CART captioning.
- Demonstrate knowledge of the professional captioning organizations and methods of gaining certification as a Certified Realtime Captioner.
- Utilize machine shorthand with a computer-aided transcription system with realtime translation to write the spoken word.
- Demonstrate ability to conduct thorough research in a wide variety of topics to support accurate captioning of diverse broadcast and CART captioning content.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/broadcast-captioning>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- It is recommended that students rent a stenograph machine and laptop computer through the rental program available at Lakeshore. Lakeshore's Broadcast Captioning program follows the National Court Reporters Association (NCRA) standards. Upon completion of this curriculum, the student will have dual degrees in Court Reporting and Broadcast Captioning.
- CASE Catalyst software is required for this program. Student pricing is available. Contact your academic counselor for more information.

GRADUATION REQUIREMENT

Three 5-minute timings must be passed in each of the following categories with a minimum of 95 percent accuracy:

- Two-voice testimony @ 225 wpm
- Jury charge @ 200 wpm
- Literary @ 180 wpm
- Broadcast Captioning Internship of 40 hours must be taken within 18 months of graduation.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10170106	Realtime Reporting 1	5
10170804	Realtime Reporting 1 Lab	1
10170107	Introduction to Realtime Reporting	1
10801136	English Composition 1	3
10809198	Introduction to Psychology	3
10170184	English for Realtime Reporters	1
		14
Term 2		
10170105	Realtime Reporting 2	5
10170805	Realtime Reporting 2 Lab	1
10170159	Realtime Reporting Technology	2
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10170160	Legal Terminology	1
		12
Term 3 (Summer)		
10170108	Realtime Reporting Speed Development	2
10170104	Broadcast Captioning Research Methods	1
10809122	Introduction to American Government OR 10809172 Introduction to Diversity Studies	3
10170126	Skillbuilding 1 (optional) (2 cr)	6
10170127	Skillbuilding 2 (optional) (2 cr)	
10170136	Skillbuilding 3 (optional) (2 cr)	
Term 4		
10170109	Literary 1 - Advanced	2
10170128	Jury Charge 1 - Advanced	2
10170156	Testimony 1 - Advanced	3
10170161	Realtime Reporting Technology Advanced	2
10804189	Introductory Statistics OR 10806112 Principles of Sustainability	3
		12
Term 5		
10170145	Court Reporting Internship	1
10170111	Literary 2 - Advanced	2
10170129	Jury Charge 2 - Advanced	2
10170157	Testimony 2 - Advanced	3
10170146	Four Voice	1
10170141	Court Reporting Procedures	2
10170101	Captioning/CART	3
10170171	Medical Reporting and Terminology	2
		16
Term 6		
10170143	Internship in Broadcast Captioning/CART	1

TOTAL 61

BEGINNING COURSES REQUIRED PRIOR TO ADVANCED COURSES

10170121	Jury Charge 1 - Beginner*	2
10170122	Jury Charge 2 - Beginner*	2
10170113	Literary 1 - Beginner*	2
10170114	Literary 2 - Beginner*	2
10170153	Testimony 1 - Beginner*	2
10170154	Testimony 2 - Beginner*	2

**Course descriptions can be found on the Lakeshore website*

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BROADCAST CAPTIONING RESEARCH METHODS...prepares the learner to prepare (research) prior to broadcast, conduct research in preparation for broadcasting international news, national news, local news, weather reports, sporting events, writing geographical terms, utilize culturally diverse terminology, and create job dictionaries.

CAPTIONING/CART...prepares the student to write Realtime dictation at 180 wpm, analyze deaf culture, analyze captioning/CART procedures, prepare for broadcast production, configure CAT software for captioning, set up captioning hardware, operate the CAT system in captioning mode, utilize proper technology to control caption spacing and placement, write a news broadcast for 30 minutes non-stop, configure CART software, and analyze the contents of the CART provider's manual. PREREQUISITE: 10170156 Testimony 1 - Adv and 10170109 Literary 1 - Adv and COREQUISITE: 10170154 Testimony 2 - Beginner

COURT REPORTING INTERNSHIP...prepares the student to write machine shorthand verbatim for a minimum of 40 hours of actual writing time in the courtroom, classroom, and deposition environment under the supervision of a working reporter; prepare a 40-page transcript and summarize the internship experience in a narrative report. PREREQUISITE: 10106108 or 10170108 Realtime Rptg Speed Dev, 10106128 or 10170128 Jury Chrg 1-Adv, 10106109 or 10170109 Lit 1-Adv, 10106156 or 10170156 Test 1-Adv and COREQUISITE: 10106129 or 10170129 Jury Chrg 2-Adv, 10106111 or 10170111 Lit 2-Adv and 10106157 or 10170157 Test 2-Adv

COURT REPORTING PROCEDURES...introduces the student to reporting procedures for which reporters are responsible in the courtroom, deposition, and real-time reporting environments, including preparing salable transcripts, researching legal citations, and developing professional development plans. PREREQUISITE: 10170156 Testimony 1 Adv

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ENGLISH FOR REALTIME REPORTERS...enhances the student's ability to use proper English grammar, spelling, punctuation, capitalization, and vocabulary techniques in the transcription of the spoken word.

FOUR VOICE...prepares the student to write four-voice testimony from material dictated at a minimum speed of 160 wpm for 5 minutes with a minimum of 95 percent accuracy. PREREQUISITE: 10170156 Testimony 1 - Advanced

INTERNSHIP IN BROADCAST CAPTIONING/CART...prepares the learner to caption live broadcast, use television broadcast terminology, describe television broadcast operations, and provide CART services to a hearing-impaired person. Students must be writing at 180 words per minute literary prior to enrolling in this course. PREREQ: 10106108 or 10170108 Realtime Rptg Speed Dev, 10106128 or 10170128 Jury Chrg 1-Adv, 10106109 or 10170109 Lit 1-Adv, 10106156 or 10170156 Test 1-Adv & COREQ: 10106129 or 10170129 Jury Chrg 2-Adv, 10106111 or 10170111 Lit 2-Adv & 10106157 or 10170157 Test 2-Adv

INTRODUCTION TO AMERICAN GOVERNMENT...introduces American political processes and institutions. It focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. It explores the role of the media, interest groups, political parties and public opinion in the political process. It also explores the role of state and national government in our federal system. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO REALTIME REPORTING...introduces students to industry-relevant technologies, employment opportunities, and career pathways in Realtime professions. CONDITION: 101701 Broadcast Captioning or 101702 Court Reporting program requirements met

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

JURY CHARGE 1 - ADVANCED...prepares the student to write jury charge material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170121 Jury Charge 1 - Beginner or 10106121 Jury Charge 1 - Beginner or CONDITION: Minimum of 130 WPM met

JURY CHARGE 2 - ADVANCED...prepares the learner to write jury charge material at 200 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170122 Jury Charge 2 - Beginner or 10106122 Jury Charge 2 - Beginner or CONDITION: Minimum of 180 WPM met

LEGAL TERMINOLOGY...provides the student with the ability to spell, pronounce, and define legal terms.

LITERARY 1 - ADVANCED...prepares the learner to write literary material at 150 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy, write and read back current events dictation, and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170113 Literary 1 - Beginner or 10106113 Literary 1 - Beginner or CONDITION: Minimum of 130 WPM met

LITERARY 2 - ADVANCED...prepares the learner to write literary material at 180 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy, write and read back current events dictation, and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170114 Literary 2 - Beginner or 10106114 Literary 2-Beginner or CONDITION: Minimum of 160 WPM met

MEDICAL REPORTING AND TERMINOLOGY...prepares the student to write medical terminology in machine shorthand using appropriate medical terminology from material dictated at a minimum speed of 150 wpm for 5 minutes with a minimum of 95 percent accuracy. The student will research medical information, prepare salable transcripts, and submit timings. PREREQUISITE: 10170156 Testimony 1-Adv or 10106156 Testimony 1 - Adv

REALTIME REPORTING 1...prepares learners to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms & phases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 Lab is required. CONDITION: 101701 Broadcast Capt or 101702 Court Rep or 101061 Judicial Rep program reqs met

REALTIME REPORTING 1 LAB...prepares the learner to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms and phrases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 is required. COREQUISITE: 10170106 Realtime Reporting 1 or 10106104 Realtime Reporting 1 and CONDITION: 101701 Broadcast Captioning or 101702 Court Reporting or 101061 Judicial Reporting program requirement met

REALTIME REPORTING 2...prepares learner to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory at a minimum speed of 100 wpm. Concurrent registration in Realtime Reporting 2 Lab is required. PREREQUISITES: 10170106 Realtime Reporting 1 or 10106104 Realtime Reporting 1 and 10170804 Realtime Reporting 1 Lab or 10106804 Realtime Reporting 1 Lab

REALTIME REPORTING 2 LAB...expands the learner's ability to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory. Concurrent registration in Realtime Reporting 2 is required. COREQUISITES: 10170105 Realtime Reporting 2 or 10106105 Realtime Reporting 2

REALTIME REPORTING SPEED DEVELOPMENT...further develops skills acquired in Realtime Reporting 2 on literary and testimony material beginning at 100 wpm. Scheduled during the summer term, students must pass two, 3-minute timings at a minimum speed of 110 words per minute. PREREQUISITE: 10170105 Realtime Reporting 2 or 10106105 Realtime Reporting 2 and 10170805 Realtime Reporting Lab 2

REALTIME REPORTING TECHNOLOGY...prepares the student to use CAT (Computer-Assisted Transcription) and real-time software; build personal dictionaries; and read, translate, and edit transcripts. Students are introduced to real-time translation procedures in court, depositions, captioning, and educational environments.

REALTIME REPORTING TECHNOLOGY ADVANCED...prepares the learner to expand their knowledge of computer-assisted transcription and realtime software, dictionary management, specialized editing functions, transcript preparation, auto-included block files, and specialized macros for Steno-related tasks. PREREQUISITE: 10170159 Realtime Reporting Technology

SPEECH...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. Discuss reading academic course support with your Counselor.

TESTIMONY 1 - ADVANCED...prepares the learner to write 2-voice testimony material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170153 Testimony 1 - Beginner or 10106153 Testimony 1 - Beginner or CONDITION: or Minimum of 130 WPM met

TESTIMONY 2 - ADVANCED...prepares the learner to write 2-voice testimony material at 225 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170154 Testimony 2 - Beginner or 10106154 Testimony 2 - Beginner or CONDITION: Minimum of 180 WPM met

Program Number 10-102-3
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Business managers are found in every sector of the economy in nearly all work settings from manufacturing to health care. The Business Management program provides graduates with the knowledge and skills for positions such as an entry-level manager, office manager, shift coordinator, or team leader, or graduates may start their own business. The successful business manager oversees day-to-day activities and leads the team or organization to the next level of performance. Managers plan, organize, direct, and control the tasks that carry out the work of the business or nonprofit organization. If you set goals for yourself and strive to accomplish them, prefer working with others rather than alone, enjoy serving as a leader even if it means more work, and want to improve your skills and promotion potential, then a career in business management may be a good choice for you. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Plan the operation of a business across functional areas.
- Organize resources to achieve the goals of the organization.
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/business-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

RELATED PROGRAMS

Business Essentials (19-102-3)

SPECIAL NOTE

- Students are encouraged to complete Excel - Level 1 prior to Accounting 1.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10102110	Introduction to Business*	3
10106213	Business Web Applications*	1
10103191	Word - Level 1*	1
10196189	Team Building and Problem Solving*	3
10801136	English Composition 1	3
10804189	Introductory Statistics	3
		14
Term 2		
10116109	Career Planning & Networking *	1
10103121	Excel - Level 1*	1
10104102	Principles of Marketing*	3
10196193	Human Resource Management*	3
10101111	Accounting 1	4
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
		15
Term 3		
10182102	Service Operations Management*	3
10182108	Purchasing*	3
10101107	Managerial Accounting	4
10809143	Microeconomics	3
10809198	Introduction to Psychology	3
		16
Term 4		
10196188	Project Management*	3
10102160	Business Law 1	3
10102107	Internship-Business Management* OR 10138101 Intro to Global Business*	3
10102123	Business Management-Capstone*	3
10809172	Introduction to Diversity Studies	3
		15
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING 1...provides the learner with the skills to understand and apply accounting principles and procedures useful in any business. Includes the accounting cycle for a service enterprise and a merchandising enterprise, chart of accounts, special journals, ledgers, accruals and deferrals, inventories, and internal controls.

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

BUSINESS MANAGEMENT-CAPSTONE...assesses the role of business, its internal structure and its relationship to the external environment. Each learner analyzes the functions of business planning, information systems, operations management, information technology, marketing and how they interact and drive business activities. Students recognize what they have learned throughout the program. They assemble a portfolio using research, samples of their best work, and reflection papers to analyze their attainment of college core abilities.

BUSINESS WEB APPLICATIONS...provides the learner with skills to navigate Google and Microsoft collaboration tools including Google Meet, MS Teams, Google Extensions, Gmail, and Outlook.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HUMAN RESOURCE MANAGEMENT...applies the skills/tools necessary to effectively value and apply employees' abilities and needs to organization goals. Learners will demonstrate the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies/procedures, training, performance management, employee counseling/development, and effective use of compensation and benefit strategies.

INTERNSHIP-BUSINESS MANAGEMENT...requires students to complete 216 hours of performing work in a business/industrial service setting related to their Business Management program objectives. Students are responsible for seeking and obtaining the internship position. Course requirements include maintaining a log of work activities, identifying and receiving approval from the job supervisor and instructor, and completing a work-related project. Students may meet periodically at LTC.

INTRODUCTION TO BUSINESS...provides an introduction to the world of business from both the organizational and managerial viewpoint. It examines areas of business including the business environment, business formation, planning, operations, accounting, marketing, human resource management, and building effective teams.

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

MANAGERIAL ACCOUNTING...prepares the learner to analyze financial performance; prepare and evaluate budgets; and compare and manage capital. PREREQUISITE: 10101111 Accounting 1

MICROECONOMICS...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. Discuss reading academic course support with your Counselor.

PRINCIPLES OF MARKETING...introduces the student to the consumer decision process model, the bases used to segment a market, basic concepts about goods, services, and ideas, the nature of supply chain and distribution, integrated marketing communications, and the stages of the product life cycle and their impact on the marketing mix.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

PURCHASING...introduces the participant to basic purchasing, quality specifications, inventory control, supplier selection, price aspects, research and measurement, negotiation, and global purchasing. This course is exciting for anyone interested in working in a challenging and rewarding purchasing and supply chain management career.

SERVICE OPERATIONS MANAGEMENT...introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP) and supply chain management concepts in the service sector.

SPEECH...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. Discuss reading academic course support with your Counselor.

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

**Program Number 31-102-4
Technical Diploma • Two Terms**

ABOUT THE PROGRAM

The courses in this program are especially geared to students interested in starting their own, or assisting with, a small or family-run business. This specialized training will give you the foundational skills you will need including understanding a business model, payroll accounting and business finance, business law, project management, marketing, and small business leadership. If you set goals for yourself and strive to accomplish them, enjoy serving as a leader even if it means more work, and envision yourself as a business owner, then this technical diploma may be a good choice for you. This program is offered in a partial Competency-Based Education (CBE online) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Plan the operation of a business across functional areas.
- Direct individuals and/or processes to meet organizational goals.
- Analyze the external business environment and its impact on business operations.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

RELATED PROGRAMS

- Business Management (10-102-3)
- Human Resource Administration (10-116-1)
- Administrative Professional (10-106-6)
- Accounting (10-101-1)

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10102110	Introduction to Business*	3
10103191	Word - Level 1*	1
10103121	Excel - Level 1*	1
10104102	Principles of Marketing*	3
10801136	English Composition 1	3
10804189	Introductory Statistics	3
		14
Term 2		
10101111	Accounting 1*	4
10102160	Business Law 1	3
10196188	Project Management*	3
10102128	Entrepreneurship*	3
10196193	Human Resource Management*	3
		16
		TOTAL 30

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING 1...provides the learner with the skills to understand and apply accounting principles and procedures useful in any business. Includes the accounting cycle for a service enterprise and a merchandising enterprise, chart of accounts, ledgers, accruals and deferrals, inventories, and internet controls.

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ENTREPRENEURSHIP...provides a comprehensive overview of small business ownership, from resource identification and trend analysis to business plan development and market assessment. Students will learn key aspects of building a management team, emphasizing understanding market forces and evaluating market potential to help students determine if entrepreneurship is a suitable career path.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HUMAN RESOURCE MANAGEMENT...applies the skills/tools necessary to effectively value and apply employees' abilities and needs to organization goals. Learners will demonstrate the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies/procedures, training, performance management, employee counseling/development, and effective use of compensation and benefit strategies.

INTRODUCTION TO BUSINESS...provides an introduction to the world of business from both the organizational and managerial viewpoint. It examines areas of business including the business environment, business formation, planning, operations, accounting, marketing, human resource management, and building effective teams.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

PRINCIPLES OF MARKETING...introduces the student to the consumer decision process model, the bases used to segment a market, basic concepts about goods, services, and ideas, the nature of supply chain and distribution, integrated marketing communications, and the stages of the product life cycle and their impact on the marketing mix.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

ABOUT THE PROGRAM

Learners will gain an understanding of children's needs and the behaviors that are needed to function in today's childcare environment. Students will gain skills in the childcare industry that can transfer directly into employment. This certificate could result in a completer gaining a higher YoungStar rating, and in turn resulting in a safer and more productive environment for the child/children.

PROGRAM OUTCOMES

- Gain awareness of proper nutrient, licensing rules and regulations, health and safety standards essential to the education and welfare of young children
- Comprehend professional terminology used in the early childhood field

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
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 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/childcare-professional>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

- To practice in the field completers will need to successfully pass a background information check.
- The four courses in the Childcare Professional Certificate are part of both the one-year Child Care Services technical diploma and the two-year Early Childhood Education associate degree.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

A Child Care Professional pathway certificate will train students for work in the occupation of childcare. There are an estimated 203 annual job openings within a 50 mile radius of Sheboygan and Manitowoc counties. This certificate also ladders into the Child Care Services technical diploma program and Early Childhood Education associate degree. After completing the associate degree program students can continue their education at various 4-year colleges.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
COURSES		
10307167	ECE: Health, Safety and Nutrition*	3
10307151	ECE: Infant and Toddler Development*	3
10307179	ECE: Child Development*	3
10307110	ECE: Social Studies, Art & Music*	3
		TOTAL 12

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ECE: CHILD DEVELOPMENT...examines child development within the context of the early childhood education setting. This course focuses on children ages 3 -8 years.

ECE: HEALTH, SAFETY AND NUTRITION...examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. This course includes training for Abusive Head Trauma, SIDS, and Mandated Reporter certifications.

ECE: INFANT AND TODDLER DEVELOPMENT...explores infant and toddler development as it applies to an early childhood education setting. This course focuses children conception through thirty-six months. This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

ECE: SOCIAL STUDIES, ART, & MUSIC...focuses on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

Program Number 31-307-1
Technical Diploma • Two Terms

ABOUT THE PROGRAM

Students in this fast-growing field receive training in planning and implementing developmentally appropriate curriculum for specific age levels; using positive guidance techniques to manage an early childhood classroom; providing for the health, safety and physical needs of the children; and work with parents to provide a link between the center and the home.

PROGRAM OUTCOMES

- Relate knowledge of child development to practice
- Create relationships with children, family and the community
- Apply observation, documentation, and assessment strategies
- Implement developmentally appropriate teaching and learning activities
- Demonstrate professionalism
- Follow health, safety and nutrition practices

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/education-training/child-care-services>.

APPROXIMATE COSTS

- \$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.
- Fingerprint-based background check current fee of \$39 (subject to change).

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- CPR/AED and First Aid certification must be completed before the start of Field Experience 1 and remain current throughout the placement.
- ECE: Health, Safety & Nutrition is a prerequisite to Field Placement 1. To keep a student on track to graduation, this course is offered summer, fall and spring terms. In addition, Field Placement 1 is offered fall and spring terms. Field Placements 2, 3, and 4 are offered summer, fall and spring. Please meet with your Lakeshore academic counselor to plan the best path for you.
- Field Placement 1 students are required to attend all course reflections to receive required trainings (36 hours of lecture + 72 hours of field experience).
- Field Placements 2, 3, and 4 students are required to attend all course reflection forums as well as scheduled field experience hours for each practicum course (36 hours of lecture + 72 hours of field experience). Students successfully completing year one of the associate degree program are able to graduate with a Child Care Services technical diploma. See academic counselor for details.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

Early Childhood Education Associate Degree

CONTACT

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920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10307167	ECE: Health, Safety, and Nutrition*	3
10307160	ECE: Field Experience 1	3
10307148	ECE: Foundations of Early Childhood Education*	3
10307151	ECE: Infant & Toddler Development*	3
10307110	ECE: Social Studies, Art & Music*	3
10801136	English Composition 1	3

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Term 2

10307170	ECE: Field Experience 2	3
10307179	ECE: Child Development*	3
10307188	ECE: Guiding Children's Behavior*	3
10307108	ECE: Early Language & Literacy*	3
10809172	Introduction to Diversity Studies	3

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TOTAL 33

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ECE: CHILD DEVELOPMENT...examines child development within the context of the early childhood education setting. This course focuses on children ages 3 -8 years.

ECE: GUIDING CHILDREN'S BEHAVIOR...examines positive strategies to guide children's behavior in the early childhood education setting. This course meets the requirements of the Wisconsin Pyramid Model training.

ECE: HEALTH, SAFETY AND NUTRITION...examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. This course includes training for Abusive Head Trauma, SIDS, and Mandated Reporter certifications.

ECE: EARLY LANGUAGE & LITERACY...explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age.

ECE: FIELD EXPERIENCE 1...you will be introduced to the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307167 ECE: Health, Safety, and Nutrition

ECE: FIELD EXPERIENCE 2...you will assist the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307160 ECE: Field Experience 1

ECE: FOUNDATIONS OF EARLY CHILDHOOD EDUCATION...introduces the early childhood profession through a historical overview of the field. The course will explore program trends, quality indicators, and developmentally appropriate practices for children birth to age 8.

ECE: INFANT AND TODDLER DEVELOPMENT...explores infant and toddler development as it applies to an early childhood education setting. This course focuses children conception through thirty-six months. This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

ECE: SOCIAL STUDIES, ART, & MUSIC...focuses on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

Program Number 32-444-1 Technical Diploma • Four Terms

ABOUT THE PROGRAM

Learn Machining and Computer Numerical Control (CNC) at your own pace, through hands-on learning. Machining is used to perform a wide range of manufacturing tasks including milling, drilling, and turning. Technicians work with CNC equipment from setup through operation, producing parts and tools from metal, plastic, or other materials. CNC technicians program the equipment to control speed, feed, and path of the cut. They inspect the finished product to ensure it is a quality part and ready for the next step in production. If you like to create things with your hands, are fascinated with technology, and want above-average earning power, the CNC Automation Technician program is for you.

PROGRAM OUTCOMES

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform advanced machine tool equipment set-up and operation.
- Perform advanced programming, set-up and operation of CNC Machine Tools.
- Perform advanced CNC Machining operations.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
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 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/cnc-automation-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- This program offers flexible start dates throughout the year.

RELATED PROGRAMS

- Machinist Apprenticeship
- Tool and Die Apprenticeship

CONTACT

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Catalog No.	Class Title	Credit(s)
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Term 1

31442350	Metal Manufacturing Processes*	1
31420330	Precision Measuring*	1
31420385	Orthographic Projection Print*	1
31420325	Manufacturing Math*	1
31420338	Drills and Saws*	1
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
31420386	GD&T Intro*	1
31420326	Manufacturing Applied Math*	1
31444301	G&M Code Programming*	1
31444303	CNC Machining Operation*	1
31444309	CNC Turning Operation*	1
31420359	Heat Treat and Precision Grinding*	1

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Term 2

31801361	Interpersonal Skills	1
31801360	Workplace Fundamentals	1
31420353	ProtoTrak Mill-Squaring Programming*	1
31420354	ProtoTrak Mill-Slot and Hole Programming*	1
31444307	Mill-2D Using CAM*	1
31444311	CNC Turning-Turning and Cut Off Setup*	1
31444313	CNC Turning-Hole Producing Setup/Threading*	1
31444315	CNC Machining-Facing and End Milling Setup*	1
31444317	CNC Machining-Hole/Slot/Engraving Setup*	1
31444321	CNC Turning 2D Using CAM*	1
31420361	Complex Print Drawings*	1
31420362	Advanced Precision Measuring*	1
31420363	GD&T-Inspection*	1

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Term 3

31444323	CNC Machining-Probing/Editing/G&M Code*	1
31444325	CNC Machining-Work Holding*	1
31444327	CNC Turning-Program Editing*	1
31444333	CNC Machining-Setup/Operation with G&M Code*	1
31444357	CNC Turning-Setup and Operation*	1
31420364	ProtoTrak Mill Programming*	1
31420365	ProtoTrak Lathe Programming*	1
31444339	CNC Machining-G&M Programming Using CAM*	1
31444341	CNC Machining-Setup/Operation Using CAM*	1
10606208	3D Design- SolidWorks 1*	2
10606202	Product Design & Rapid Prototyping*	2
31444347	HSM for SolidWorks*	1

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Term 4

32444343	CNC Technician Internship	2
31444343	CNC Turning-G&M Programming Using CAM*	1
31444345	CNC Turning-Setup and Operation Using CAM*	1
31444349	CNC Turning with Live Tooling-Operation*	1
31444351	CNC Turning with Live Tooling-Programming*	1
31444353	CNC Turning with Live Tooling-Adv Programming*	1
32444306	CNC Skills Portfolio*	1
31444359	Wire EDM Operation*	1
31444371	Wire EDM Program/Operate*	1
10620167	Robotics-Teach Pendant/Controls*	1
10620179	Robotics-Editing Programs*	1
32444355	Multi Axis Mill-Set up and Operation*	1
32444357	Multi Axis Mill-Programming*	1
32444359	Multi Axis Mill-Advanced Programming*	1

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TOTAL 55

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

Please see *Precision Machining Technology* for Term 1 & 2 course descriptions.

3D DESIGN-SOLIDWORKS 1...introduces the students to the concepts and commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, and add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of the parametric solid models and best practices to ensure robust engineering designs.

CNC MACHINING-G&M PROGRAMMING USING CAM...covers how the ability to create G&M code programs to create complex parts is made possible using CAM software. Prepares the learner to create G&M code programs using Mastercam software, post process. The learning will be creating programs for facemilling, end milling and hole production.

CNC MACHINING-PROBING/EDITING/G&M CODE...prepares the learner to perform probing operations for part location and edit G&M code programs to meet part specifications for CNC machining centers.

CNC MACHINING-SETUP/OPERATION USING CAM...prepares learner to download programs created using CAM into control; set up and prove out; and operate on the CNC machining center. You will be creating programs for face milling, end milling and hole producing.

CNC MACHINING-SETUP/OPERATION WITH G&M CODE...teaches students to create and edit G&M code for CNC machining centers, load program into control, set up and prove out program, and operate your program on CNC machining center.

CNC MACHINING-WORK HOLDING...prepares the learner to set up and operate a CNC machining center, using various work holding techniques, perform probing on the CNC machining center and edit programs on the CNC control.

CNC SKILLS PORTFOLIO...prepares the learner to create a capstone project using multiple machines and setups and create a portfolio including resume and displaying skills attained throughout program courses.

CNC TECHNICIAN INTERNSHIP...prepares learner to apply technical skills as well as work productively, communicate effectively, and demonstrate ethics in a professional workplace.

CNC TURNING WITH LIVE TOOLING-ADV PROGRAMMING...prepares the learner to operate CNC turning center with live tooling using student developed CNC programs. COREQUISITE: 31444351 CNC Turning with Live Tooling-Programming

CNC TURNING WITH LIVE TOOLING-OPERATION...teaches students to properly setup a CNC turning center with live tooling for safe operation.

CNC TURNING WITH LIVE TOOLING-PROGRAMMING...prepares the learner to create G&M code programs for turning center with live tooling using CAM software. COREQUISITE: 31444349 CNC Turning with Live Tooling-Operation

CNC TURNING-G&M CODE PROGRAMMING USING CAM...prepares the learner to create G&M code programs using CAM software for a CNC turning center.

CNC TURNING-PROGRAM EDITING...prepares the learner to edit programs to create parts to print specifications on a CNC turning center.

CNC TURNING-SETUP AND OPERATION...prepares the learner to setup and operate a CNC turning center using advanced techniques including tailstock and lefthand tooling operations.

CNC TURNING-SETUP AND OPERATION USING CAM...prepares the learner to operate a CNC turning center using student developed CAM programs.

HSM FOR SOLIDWORKS...prepares the learner to create CNC programs using HSM for SolidWorks, creating G&M code programs from the solid model, explore the SolidWorks interface and create face milling, end milling, and hole-producing tool paths for CNC machining centers. High Speed Machining (HSM) is an add-on to SolidWorks for CAM processes.

MULTI AXIS MILL-ADVANCED PROGRAMMING...prepares the learner to operate a CNC multi axis mill using student developed CAM programs.

MULTI AXIS MILL-PROGRAMMING...prepares the learner to create G&M code programs for a CNC multi axis mill using CAM software. COREQUISITE: 32444355 Multi Axis Mill-Set up and Operation

MULTI AXIS MILL-SET UP AND OPERATION...teaches students to properly setup a CNC turning center with live tooling for safe operation.

PRODUCT DESIGN AND RAPID PROTOTYPING...introduces students to product design and rapid prototyping methods. Students will discover the product design process, then utilizing the various equipment available in the MDET program's Fab Lab, produce an actual product they designed. PREREQUISITE: 10606108 SolidWorks 1-Parametric Modeling or COREQUISITE: 10606208 3D Design-SolidWorks 1

PROTOTRAK LATHE PROGRAMMING...prepares the learner to create and operate conversational lathe programs on a ProtoTrak lathe.

PROTOTRAK MILL PROGRAMMING...prepares the learner to perform advanced conversational programming features using a ProtoTrak machining center.

ROBOTICS-EDITING PROGRAMS...teaches troubleshooting and repairing issues in a robot program. COREQUISITE: 10620167 Robotics-Teach Pendant/Controls

ROBOTICS-TEACH PENDANT/CONTROL...instructs students on using a teach pendant to control a robot. COREQUISITE: 10620179 Robotics-Editing Programs

WIRE EDM OPERATION...prepares the learner to analyze the wire EDM processes, identify components, set up and operate wire EDM safely.

WIRE EDM PROGRAM/OPERATE...prepares the learner to program the wire EDM using CAM software, then set up and operate those programs on the wire EDM.

ABOUT THE PROGRAM

Students work on acquiring high-level drafting skills and utilize computer-aided drafting (CAD) software. They learn to construct and revise engineering working drawings to ASME (American Society of Mechanical Engineers) standards.

PROGRAM OUTCOMES

- Prepare detail and assembly drawings for documentation of mechanical parts and machines using CAD (Computer-Aided Design) software using ASME Y14.5M Standard.
- Create CAD geometry, parts and assemblies.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/computer-aided-design-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10606100	2D Design Standards*	1
10606208	3D Design-SolidWorks 1*	2
10606201	2D Design-AutoCAD*	2
10606202	Product Design & Rapid Prototyping*	2
10606204	Manufacturing Processes and Materials*	2
		9
Term 2		
10606206	Tolerancing and GD&T*	3
10606209	3D Design-SolidWorks 2-Part Drawings*	2
10606210	3D Design-SolidWorks 3-Assembly & Drawings*	2
10606211	3D Design-SolidWorks 4-Advanced*	2
		9

TOTAL 18

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

2D DESIGN STANDARDS...develops skills for creating engineering designs through the application of standards and procedures. Principles covered include view selection, orthographic projection, section and auxiliary views, and their utilization in working drawings. These skills will be reinforced using AutoCAD as the main software platform.

2D DESIGN-AUTOCAD...provides the learner with the best practice skills to utilize AutoCAD drawing editor, viewing commands; apply coordinate entry methods, AutoCAD file commands; utilize draw commands, modify commands; create and edit text, prints & plots; apply geometric construction to solve a drawing problem; utilize selection sets, duplicating modify commands, layers & objects properties, blocks; apply principles of orthographic and multi view projection.

3D DESIGN-SOLIDWORKS 1...introduces the students to the concepts and commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, and add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of the parametric solid models and best practices to ensure robust engineering designs.

3D DESIGN-SOLIDWORKS 2-PART DRAWINGS...introduces students to the process of creating 2D documentation from the 3D models and adding details to those drawings. This includes projection views, section views, auxiliary views, and annotation applications. **PREREQUISITE:** 10606108 SolidWorks1-Parametric Modeling or **COREQUISITE:** 10606208 3D Design-SolidWorks 1

3D DESIGN-SOLIDWORKS 3-ASSEMBLY & DRAWINGS...continues the path of 2D documentation in SolidWorks with an emphasis on assemblies and drawings. The students will learn assembly creation (top-down vs bottom-up), adding fasteners, drawing creation, BOM creation, cut lists and other best practices. **PREREQUISITE:** 10606109 SolidWorks 2-Modeling/Details for Designers or **COREQUISITE:** 10606209 3D Design-SolidWorks 2-Part Drawings

3D DESIGN-SOLIDWORKS 4-ADVANCED...introduces students to advanced modeling and design techniques for part design in sheet metal, weldments, castings, and mold design. **PREREQUISITE:** 10606110 SolidWorks 3-Working Drawings for Designers or **COREQUISITE:** 10606210 3D Design-SolidWorks 3-Assembly & Drawings

MANUFACTURING PROCESSES AND MATERIALS...introduces the learner to various manufacturing processes (casting/molding, injection molding, sheet metal forming/die cutting); machining processes (milling, turning, and drilling); assembly processes (welding, fasteners); and advanced manufacturing technology (3D printing, laser sintering, laser cutting). The learner will also learn how to properly use and read dial and digital micrometers; dial, digital and vernier calipers.

PRODUCT DESIGN AND RAPID PROTOTYPING...introduces students to product design and rapid prototyping methods. Students will discover the product design process, then utilizing the various equipment available in the MDET program's Fab Lab, produce an actual product they designed. **PREREQUISITE:** 10606108 SolidWorks 1-Parametric Modeling or **COREQUISITE:** 10606208 3D Design-SolidWorks 1

TOLERANCING AND GD&T...provides the learner with the skills to apply and interpret tolerancing standards for both rectangular and geometric tolerancing (ASME 14.5M-2018) on part drawings, including form, profile, orientation, runout, and positional tolerances. Additionally, the learning will design mating parts and tolerance stack ups with and without GD&T.

Program Number 10-170-2
Associate Degree in Applied Science • Varies

ABOUT THE PROGRAM

You've seen high-profile trials with a person keying the testimony into a stenograph machine or read the scrolling captions for the hearing-impaired on your TV screen. The person writing the spoken words at speeds ranging from 180 to 225 words a minute is a court reporter. If you're an excellent listener, have strong language and communications skills, and are committed to accuracy and confidentiality, a career in court reporting may be a perfect fit for you.

PROGRAM OUTCOMES

- Use machine shorthand with a computer-aided transcription system to write the spoken word and produce a transcript.
- Perform as a realtime reporter.
- Demonstrate knowledge of legal terminology.
- Apply the NCRA Certification Standards.
- Create a salable transcript free of NCRA recognized errors.
- Demonstrate knowledge of medical terminology.
- Complete an NCRA-recognized professional internship.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
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 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/court-reporting>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- It is recommended that students rent a stenograph machine and laptop computer through the rental program available at Lakeshore. Lakeshore's Court Reporting program is approved by the National Court Reporters Association (NCRA).
- CASE Catalyst software is required for this program. Student pricing is available. Contact your academic counselor for more information.

GRADUATION REQUIREMENT

Three 5-minute timings must be passed in each of the following categories with a minimum of 95 percent accuracy:

- Two-voice testimony @ 225 wpm
- Jury charge @ 200 wpm
- Literary @ 180 wpm
- Court Reporting Internship of 40 hours must be taken within 18 months of graduation.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10170106	Realtime Reporting 1	5
10170804	Realtime Reporting 1 Lab	1
10170107	Introduction to Realtime Reporting	1
10801136	English Composition 1	3
10809198	Introduction to Psychology	3
10170184	English for Realtime Reporters	1
14		
Term 2		
10170105	Realtime Reporting 2	5
10170805	Realtime Reporting 2 Lab	1
10170159	Realtime Reporting Technology	2
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10170160	Legal Terminology	1
12		
Term 3 (Summer)		
10170108	Realtime Reporting Speed Development	2
10170104	Broadcast Captioning Research Methods	1
10809122	Introduction to American Government OR 10809172 Introduction to Diversity Studies	3
10170126	Skillbuilding 1 (optional) (2 cr)	
10170127	Skillbuilding 2 (optional) (2 cr)	
10170136	Skillbuilding 3 (optional) (2 cr)	
6		
Term 4		
10170109	Literary 1 - Advanced	2
10170128	Jury Charge 1 - Advanced	2
10170156	Testimony 1 - Advanced	3
10170161	Realtime Reporting Technology Advanced	2
10804189	Introductory Statistics OR 10806112 Principles of Sustainability	3
12		
Term 5		
10170145	Court Reporting Internship	1
10170111	Literary 2 - Advanced	2
10170129	Jury Charge 2 - Advanced	2
10170157	Testimony 2 - Advanced	3
10170146	Four Voice	1
10170141	Court Reporting Procedures	2
10170101	Captioning/CART	3
10170171	Medical Reporting and Terminology	2
16		
TOTAL 60		
BEGINNING COURSES REQUIRED PRIOR TO ADVANCED COURSES		
10170121	Jury Charge 1 - Beginner*	2
10170122	Jury Charge 2 - Beginner*	2
10170113	Literary 1 - Beginner*	2
10170114	Literary 2 - Beginner*	2
10170153	Testimony 1 - Beginner*	2
10170154	Testimony 2 - Beginner*	2

**Course descriptions can be found on the Lakeshore website*

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BROADCAST CAPTIONING RESEARCH METHODS...prepares the learner to prepare (research) prior to broadcast, conduct research in preparation for broadcasting international news, national news, local news, weather reports, sporting events, writing geographical terms, utilize culturally diverse terminology, and create job dictionaries.

CAPTIONING/CART...prepares the student to write Realtime dictation at 180 wpm, analyze deaf culture, analyze captioning/CART procedures, prepare for broadcast production, configure CAT software for captioning, set up captioning hardware, operate the CAT system in captioning mode, utilize proper technology to control caption spacing and placement, write a news broadcast for 30 minutes non-stop, configure CART software, and analyze the contents of the CART provider's manual. PREREQ: 10170156 Testimony 1-Adv and 10170109 Literary 1-Adv and COREQUISITE: 10170154 Testimony 2 - Beg

COURT REPORTING INTERNSHIP...prepares the student to write machine shorthand verbatim for a minimum of 40 hours of actual writing time in the courtroom, classroom, and deposition environment under the supervision of a working reporter; prepare a 40-page transcript, and summarize the internship experience in a narrative report. PREREQ: 10106108 or 10170108 Realtime Rptg Speed Dev, 10106128 or 10170128 Jury Chrg 1-Adv, 10106109 or 10170109 Lit 1-Adv, 10106156 or 10170156 Test 1-Adv & COREQ: 10106129 or 10170129 Jury Chrg 2-Adv, 10106111 or 10170111 Lit 2-Adv & 10106157 or 10170157 Test 2-Adv

COURT REPORTING PROCEDURES...introduces the student to reporting procedures for which reporters are responsible in the courtroom, deposition, and real-time reporting environments, including preparing salable transcripts, researching legal citations, and developing professional development plans. PREREQUISITE: 10170156 Testimony 1 Advanced

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ENGLISH FOR REALTIME REPORTERS...enhances the student's ability to use proper English grammar, spelling, punctuation, capitalization, and vocabulary techniques in the transcription of the spoken word.

FOUR VOICE...prepares the student to write four-voice testimony from material dictated at a minimum speed of 160 wpm for 5 minutes with a minimum of 95 percent accuracy. PREREQUISITE: 10170156 Testimony 1 – Advanced

INTRODUCTION TO AMERICAN GOVERNMENT...introduces American political processes and institutions. It focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. It explores the role of the media, interest groups, political parties and public opinion in the political process. It also explores the role of state and national government in our federal system. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO REALTIME REPORTING...introduces students to industry-relevant technologies, employment opportunities, and career pathways in Realtime professions. CONDITION: 101701 Broadcast Captioning or 101702 Court Reporting program requirements met

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

JURY CHARGE 1 - ADVANCED...prepares the student to write jury charge material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170121 Jury Charge 1 - Beginner or 10106121 Jury Charge 1 - Beginner or CONDITION: Minimum of 130 WPM met

JURY CHARGE 2 - ADVANCED...prepares the learner to write jury charge material at 200 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170122 Jury Charge 2 - Beginner or 10106122 Jury Charge 2 - Beginner or CONDITION: Minimum of 180 WPM met

LEGAL TERMINOLOGY...provides the student with the ability to spell, pronounce, and define legal terms.

LITERARY 1 - ADVANCED...prepares the learner to write literary material at 150 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy, write and read back current events dictation, and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170113 Literary 1 - Beginner or 10106113 Literary 1 - Beginner or CONDITION: Minimum of 130 WPM met

LITERARY 2 - ADVANCED...prepares the learner to write literary material at 180 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy, write and read back current events dictation, and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170114 Literary 2 - Beginner or 10106114 Literary 2 - Beginner or CONDITION: Minimum of 160 WPM met

MEDICAL REPORTING AND TERMINOLOGY...prepares the student to write medical terminology in machine shorthand using appropriate medical terminology from material dictated at a minimum speed of 150 wpm for 5 minutes with a minimum of 95 percent accuracy. The student will research medical information, prepare salable transcripts, and submit timings. PREREQUISITE: 10170156 Testimony 1 - Advanced or 10106156 Testimony 1 – Advanced

REALTIME REPORTING 1...prepares the learners to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms and phases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 Lab is required. CONDITION: 101701 Broadcast Captioning or 101702 Court Reporting or 101061 Judicial Reporting program requirements met

REALTIME REPORTING 1 LAB...prepares the learner to use machine shorthand to write consonants, vowels, numbers, multi-syllabic words, multi-consonant words, punctuation and special symbols, short forms and phrases, words in their singular and plural forms, and prefixes and suffixes. Concurrent registration in Realtime Reporting 1 is required. COREQUISITE: 10170106 Realtime Reporting 1 or 10106104 Realtime Reporting 1 and CONDITION: 101701 Broadcast Captioning or 101702 Court Reporting or 101061 Judicial Reporting program requirement met

REALTIME REPORTING 2...prepares the learner to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory at a minimum speed of 100 wpm. Concurrent registration in Realtime Reporting 2 Lab is required. PREREQUISITES: 10170106 Realtime Reporting 1 or 10106104 Realtime Reporting 1 and 10170804 Realtime Reporting 1 Lab or 10106804 Realtime Reporting 1 Lab

REALTIME REPORTING 2 LAB...expands the learner's ability to write multi-syllabic words; punctuation and special symbols, short forms and phrases, prefixes and suffixes; numbers, frequently used words and phrases, contractions using the Z-rule, the "Flagged Alphabet," apply realtime conflict elimination principles, apply realtime theory and write dictation using a realtime theory. Concurrent registration in Realtime Reporting 2 is required. COREQUISITES: 10170105 Realtime Rep 2 or 10106105 Realtime Reporting 2

REALTIME REPORTING SPEED DEVELOPMENT...further develops skills acquired in Realtime Reporting 2 on literary and testimony material beginning at 100 wpm. Scheduled during the summer term, students must pass two, 3-minute timings at a minimum speed of 110 words per minute. PREREQUISITE: 10170105 Realtime Reporting 2 or 10106105 Realtime Reporting 2 and 10170805 Realtime Reporting Lab 2

REALTIME REPORTING TECHNOLOGY...prepares the student to use CAT (Computer-Assisted Transcription) and real-time software; build personal dictionaries; and read, translate, and edit transcripts. Students are introduced to real-time translation procedures in court, depositions, captioning, and educational environments.

REALTIME REPORTING TECHNOLOGY ADVANCED...prepares the learner to expand their knowledge of computer-assisted transcription and realtime software, dictionary management, specialized editing functions, transcript preparation, auto-included block files, and specialized macros for Steno-related tasks. PREREQUISITE: 10170159 Realtime Reporting Technology

SPEECH...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. Discuss reading academic course support with your Counselor.

TESTIMONY 1 - ADVANCED...prepares the learner to write 2-voice testimony material at 160 words per minute for 3 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170153 Testimony 1 - Beginner or 10106153 Testimony 1 - Beginner or CONDITION: or Minimum of 130 WPM met

TESTIMONY 2 - ADVANCED...prepares the learner to write 2-voice testimony material at 225 words per minute for 5 minutes and transcribe at least 3 timings with a minimum of 95 percent accuracy and prepare salable transcripts. Course requires a minimum grade of "B" or better. PREREQUISITE: 10170154 Testimony 2 - Beginner or 10106154 Testimony 2 - Beginner or CONDITION: Minimum of 180 WPM met

**Program Number 31-504-7
Technical Diploma • Three Terms**
ABOUT THE PROGRAM

This program incorporates the Wisconsin Department of Justice Recruit Academy portion of Lakeshore's Criminal Justice Associate Degree. This offers those individuals that have already completed necessary college coursework to complete a Department of Justice Recruit Academy at Lakeshore College.

PROGRAM OUTCOMES

- Think critically.
- Manage emergencies.
- Communicate effectively.
- Demonstrate professionalism.
- Interact with others.
- Demonstrate tactical skills.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores. Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/criminal-justice-720-embedded-academy>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- This unique program permits individuals that already have 24 accredited college credits to complete a Department of Justice Recruit Academy and gain the necessary credentials (60 total college credits) to become a certifiable candidate for law enforcement job opportunities.
- Individuals seeking Department of Justice Academy completion will need to complete a mandatory physical fitness test for admission to the academy component of this program.
- Lakeshore's Criminal Justice-Law Enforcement program is approved by the Wisconsin Department of Justice, Training and Standards Bureau. The Wisconsin Department of Justice reserves the right to make changes to the Recruit Academy embedded within this program, which may necessitate curriculum changes.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Spring)		
10504700	Introduction to Criminal Justice	3
10504915	Basic Patrol Response	2
10504916	Basic Tactics	2
10504703	Basic Investigations	3
10504920	Physical Fitness Phase 1	1
10801196	Oral/Interpersonal Communication	3
		14
Term 2 (Summer)		
10504917	Intermediate Investigation	1
10504711	Intermediate Patrol Response	2
10504713	Advanced Tactics A	2
10504712	Advanced Tactics B	2
10504921	Physical Fitness Phase 2	1
		8
Term 3 (Fall)		
10504706	Emergency Vehicle Response	2
10504918	Advanced Investigations	5
10504709	Traffic Response	3
10504708	Physical Fitness Phase 3	1
10504714	Special Response Tactics	1
10504195	Law Enforcement Capstone	2
		14
		TOTAL 36

Students seeking Department of Justice certification must complete the courses in the program in the sequence required by the Department of Justice Recruit Academy phases.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED INVESTIGATIONS...instructs students in applying the skills from the Phase III topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Moral Reasoning and Professional Responsibility, Fair and Impartial Policing, Victims, Sexual Assault, Child Maltreatment, Interrogations, Physical Evidence Collection, Testifying in Court, Juvenile Law, Hazardous Materials, Domestics, and DOJ Integration Exercises. PREREQUISITE: 10504917 Intermediate Investigations

ADVANCED TACTICS A...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Defence and Arrest Tactics (DAAT). PREREQUISITE: 10504917 Intermediate Investigation

ADVANCED TACTICS B...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Firearms 2. PREREQUISITE: 10504916 Basic Tactics

BASIC INVESTIGATIONS...teaches and applies the skills from the Phase 1 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Constitutional Law, Crimes, Interviews, and Report Writing. Student learning will occur through lecture, on campus lab activities, and the Department of Justice 720 Academy Integration Exercises. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy program requirements met

BASIC PATROL RESPONSE...instructs students through classroom lecture, on campus lab and Wisconsin Department of Justice Integration activities. Students will learn and apply skills addressed in the following Department of Justice 720 academy Phase I topics: Basic Response(RESPOND), TraCS, Traffic Law Enforcement, and First Aid/ CPR/ AED.

BASIC TACTICS...instructs students in the skills from Phase I topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Defense and Arrest Tactics, Fundamentals of Firearms, Vehicle Contacts, and Officer Wellness. Student learning will occur through: lecture, on campus lab activities, and the Department of Justice 720 Academy Integration Exercises. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy

EMERGENCY VEHICLE RESPONSE...teaches and applies the skills from the Phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Emergency Vehicle Operations and Control (EVOC) and Vehicle Contacts 2. Student learning will occur through lecture, on campus lab activities, and Wisconsin Department of Justice 720 Academy Integration Exercises. PREREQUISITE: 10504916 or 10504702 Basic Tactics

INTERMEDIATE INVESTIGATION...instructs students in the skills from the Phase II topics outlined in the WI Department of Justice 720 Academy. Topics include: Constitutional Law II and Evidence Collection. Student learning will occur through lecture and the Wisconsin Department of Justice 720 Academy Integration Exercises. COREQUISITE: 10504703 Basic Investigations

INTERMEDIATE PATROL RESPONSE...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Crisis Management, Professional Communications part 2, and Integration Exercise. COREQUISITE: 10504915 Basic Patrol Response

INTRODUCTION TO CRIMINAL JUSTICE...focuses on the following phase 1 topics as addressed in the Wisconsin Department of Justice Academy 720 curriculum framework: Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, Professional Communications, Radio Procedures, Critical Thinking, and Integration Exercises to apply learning. PREREQUISITE: 10831103 Intro to College Writing or test or waiver equivalency and 10838105 Intro to Reading Skills or test or waiver equivalency and CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy program requirements met

LAW ENFORCEMENT CAPSTONE...instructs students how to complete practice scenarios for Phase III Wisconsin Department of Justice 720 Academy testing. Additionally, the Phase III practical testing will occur. COREQUISITE: 10504709 Traffic Response and 10504918 Advanced Investigation

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PHYSICAL FITNESS PHASE 1...applies the physical fitness skills required by the Wisconsin Department of Justice 720 academy in this phase 1 course. Students will apply learning in an instructor facilitated lab with on and off campus physical fitness activities. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy

PHYSICAL FITNESS PHASE 2...applies the physical fitness skills required by the Wisconsin Department of Justice 720 academy in this phase 2 course. Students will apply learning in an instructor facilitated lab with on campus physical fitness activities. PREREQUISITE: 10504920 Physical Fitness Phase 1

PHYSICAL FITNESS PHASE 3...applies the physical fitness skills required by the Wisconsin Department of Justice 720 Academy in this Phase 3 course. Students will apply learning in independent lab activities and an on campus physical fitness test/ assessment. PREREQUISITE: 10504705 Advanced Tactics or 10504921 Physical Fitness Phase 2

SPECIAL RESPONSE TACTICS...will teach the students, casualty care, tactics related to approaching, controlling, and intervening in unknown-risk and high-risk situations. PREREQUISITE: 10504711 Intermediate Patrol Response

TRAFFIC RESPONSE...teaches and applies the skills from the Phase 3 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Traffic Law Enforcement• Core and Radar, Traffic Crash Investigations and Incident Management, and Operating While Intoxicated (OWI) and Standard Field Sobriety Testing (SFST), and Crimes. Student learning will occur through lecture and on campus lab activities. PREREQUISITE: 10504706 Emergency Vehicle Response

Program Number 10-504-6
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

To serve and protect. These words define the commitment of law enforcement personnel. If you're a law-abiding individual who values honesty, order, detail, and you possess the desire and ability to work with and assist people in a variety of situations, you may want to consider dedicating yourself to an ever-changing career in law enforcement.

PROGRAM OUTCOMES

- Think critically.
- Manage emergencies.
- Communicate effectively.
- Demonstrate professionalism.
- Interact with others.
- Demonstrate tactical skills.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Lakeshore's Criminal Justice–Law Enforcement program is approved by the Wisconsin Department of Justice, Training and Standards Bureau. The Wisconsin Department of Justice reserves the right to make changes to the Recruit Academy embedded within this program, which may necessitate curriculum changes.
- Individuals seeking Department of Justice Academy completion will need to complete a mandatory physical fitness test for admission to the academy component of this program.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1 (Fall)

10504118	Intro to Public Safety	2
10504170	Public Safety Fitness	1
10504910	Law Enforcement Career Development	2
10801136	English Composition 1	3
10809198	Introduction to Psychology	3
10804189	Introductory Statistics	3
		14

Term 2 (Spring)

10504700	Introduction to Criminal Justice	3
10504915	Basic Patrol Response	2
10504916	Basic Tactics	2
10504703	Basic Investigations	3
10504920	Physical Fitness Phase 1	1
10504108	Professional Communications in Public Safety	1
10809122	Introduction to American Government OR	3
	10809166 Introduction to Ethics: Theory & Application	
		15

Term 3 (Summer)

10504917	Intermediate Investigation	1
10504711	Intermediate Patrol Response	2
10504713	Advanced Tactics A	2
10504712	Advanced Tactics B	2
10504921	Physical Fitness Phase 2	1
10801198	Speech	3
10801196	Oral/Interpersonal Communications	3
		14

Term 4 (Fall)

10504706	Emergency Vehicle Response	2
10504918	Advanced Investigations	5
10504709	Traffic Response	3
10504171	Advanced Patrol Techniques	3
10504708	Physical Fitness Phase 3	1
10504714	Special Response Tactics	1
10504195	Law Enforcement Capstone	2
		17

TOTAL 60

Students seeking Department of Justice certification must complete the courses in the program in the sequence required by the Department of Justice Recruit Academy phases.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED INVESTIGATIONS...instructs students in applying the skills from the Phase III topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Moral Reasoning and Professional Responsibility, Fair and Impartial Policing, Victims, Sexual Assault, Child Maltreatment, Interrogations, Physical Evidence Collection, Testifying in Court, Juvenile Law, Hazardous Materials, Domestic, and DOJ Integration Exercises. PREREQUISITE: 10504917 Intermediate Investigations

ADVANCED PATROL TECHNIQUES...provides the learner with the specialized knowledge and skills to perform a Pursuit Intervention Technique (PIT) and conduct modified high risk contacts. Additionally, learners will incorporate multiple previously learned traffic concepts into scenario based applications, and learn a variety of restraint and transport procedures. COREQUISITE: 10504706 Emergency Vehicle Response

ADVANCED TACTICS A...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Defence and Arrest Tactics (DAAT). COREQUISITE: 10504917 Intermediate Investigation

ADVANCED TACTICS B...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Firearms 2. PREREQUISITE: 10504916 Basic Tactics

BASIC INVESTIGATIONS...teaches and applies the skills from the Phase 1 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Constitutional Law, Crimes, Interviews, and Report Writing. Student learning will occur through lecture, on campus lab activities, and the Department of Justice 720 Academy Integration Exercises. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy program requirements met

BASIC PATROL RESPONSE...instructs students through classroom lecture, on campus lab and Wisconsin Department of Justice Integration activities. Students will learn and apply skills addressed in the following Department of Justice 720 academy Phase I topics: Basic Response(RESPOND), TraCS, Traffic Law Enforcement, and First Aid/ CPR/ AED.

BASIC TACTICS...instructs students in the skills from Phase I topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Defense and Arrest Tactics, Fundamentals of Firearms, Vehicle Contacts, and Officer Wellness. Student learning will occur through: lecture, on campus lab activities, and the Department of Justice 720 Academy Integration Exercises. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy

EMERGENCY VEHICLE RESPONSE...teaches and applies the skills from the Phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Emergency Vehicle Operations and Control (EVOC) and Vehicle Contacts 2. Student learning will occur through lecture, on campus lab activities, and Wisconsin Department of Justice 720 Academy Integration Exercises. PREREQUISITE: 10504916 or 10504702 Basic Tactics

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

INTERMEDIATE INVESTIGATION...instructs students in the skills from the Phase II topics outlined in the WI Department of Justice 720 Academy. Topics include: Constitutional Law II and Evidence Collection. Student learning will occur through lecture and the Wisconsin Department of Justice 720 Academy Integration Exercises. COREQUISITE: 10504703 Basic Investigations

INTERMEDIATE PATROL RESPONSE...teaches and applies the skills from the phase 2 topics outlined in the Wisconsin Department of Justice 720 Academy: Crisis Management, Professional Communications part 2, and Integration Exercise. COREQUISITE: 10504915 Basic Patrol Response

INTRODUCTION TO AMERICAN GOVERNMENT...introduces American political processes and institutions. It focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. It explores the role of the media, interest groups, political parties and public opinion in the political process. It also explores the role of state and national government in our federal system. Discuss reading academic course support with your Counselor.

INTRODUCTION TO CRIMINAL JUSTICE...focuses on the following phase 1 topics as addressed in the Wisconsin Department of Justice Academy 720 curriculum framework: Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, Professional Communications, Radio Procedures, Critical Thinking, and Integration Exercises to apply learning. PREREQUISITE: 10831103 Intro to College Writing or test or waiver equivalency and 10838105 Intro to Reading Skills or test or waiver equivalency and CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy program requirements met

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PUBLIC SAFETY...gives the student a working knowledge of Emergency Management, Public Safety Occupations and the Incident Command System.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

LAW ENFORCEMENT CAPSTONE...instructs students how to complete practice scenarios for Phase III Wisconsin Department of Justice 720 Academy testing. Additionally, the Phase III practical testing will occur. COREQUISITE: 10504709 Traffic Response and 10504918 Advanced Investigation

LAW ENFORCEMENT CAREER DEVELOPMENT...provides an in-depth study of the hiring process commonly used by law enforcement agencies. It also focuses on the skills that are essential to obtain and maintain employment as a police officer and prepares the student for future interviews. In addition, the course provides meaningful information about career options in the Criminal Justice field as well as options within the law enforcement field itself. CONDITION: 105046 Criminal Justice-Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy program requirements met

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PHYSICAL FITNESS PHASE 1...applies the physical fitness skills required by the Wisconsin Department of Justice 720 academy in this phase 1 course. Students will apply learning in an instructor facilitated lab with on and off campus physical fitness activities. CONDITION: 105046 Criminal Justice Law Enforcement 2 or 315047 Criminal Justice 720 Embedded Academy

PHYSICAL FITNESS PHASE 2...applies the physical fitness skills required by the Wisconsin Department of Justice 720 academy in this phase 2 course. Students will apply learning in an instructor facilitated lab with on campus physical fitness activities. PREREQUISITE: 10504920 Physical Fitness Phase 1

PHYSICAL FITNESS PHASE 3...applies the physical fitness skills required by the Wisconsin Department of Justice 720 Academy in this Phase 3 course. Students will apply learning in independent lab activities and an on campus physical fitness test/ assessment. PREREQUISITE: 10504705 Advanced Tactics or 10504921 Physical Fitness Phase 2

PROFESSIONAL COMMUNICATION IN PUBLIC SAFETY...provides the learner with the fundamentals of verbal and nonverbal communications for Public Safety professions. Students will harness the skills to prepare effective field notes, prepare various uniform report forms, organize information in reports, write narratives, and analyze reports for required components.

PUBLIC SAFETY FITNESS...gives the student a basic understanding of fitness for a career in Public Safety occupations.

SPECIAL RESPONSE TACTICS...will teach the students, casualty care, tactics related to approaching, controlling, and intervening in unknown-risk and high-risk situations. PREREQUISITE: 10504711 Intermediate Patrol Response

SPEECH...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. Discuss reading academic course support with your Counselor.

TRAFFIC RESPONSE...teaches and applies the skills from the Phase 3 topics outlined in the Wisconsin Department of Justice 720 Academy. Topics include: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations and Incident Management, and Operating While Intoxicated (OWI) and Standard Field Sobriety Testing (SFST), and Crimes. Student learning will occur through lecture and on campus lab activities. COREQUISITE: 10504706 Emergency Vehicle Response

**Program Number 61-091-1
Certificate • 8 credits**
ABOUT THE PROGRAM

Introduces the learner to crop and soil management, soil properties, and soil nutrient management. It also familiarizes the learner with managing a successful agribusiness or farm operation, including fundamental knowledge of business management practices and production agronomy concepts.

PROGRAM OUTCOMES

- Understand a crop and soil nutrient plan
- Understand soil properties and soil erosion
- Prepare for Pesticide Applicator Certification Exam

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/agribusiness-crops-and-soils-basic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Credits transfer to Lakeshore's Agriculture Management Technician Technical Diploma, which can be completed with one additional year of part-time classes. Students may then enter the second year of the associate degree, Agribusiness Science & Technology.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1 (Fall)		
10006201	Introduction to Soil Science*	3
10006202	Ag Employability and Professionalism*	3
		6
Term 2 (Spring)		
10006207	Principles of Crop Production*	2
		2
		TOTAL 8

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

INTRODUCTION TO SOIL SCIENCE...provides fundamentals of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrients and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion.

PRINCIPLES OF CROP PRODUCTION...introduces students to the basics about grain, fruit, and vegetable crop production. Course topics include crop and soil nutrient management, use of commercial and manure fertilizers, purchase or lease options for land, tillage and conservation plans, cropping plans, managing nutrient waste, crop harvest and storage, and production records.

ABOUT THE PROGRAM

The Culinary and Baking Basics Technical Diploma provides an introduction to the growing Baking industry and prepares the learner for an entry-level position in the baking and food service industry. Students will learn the principles and techniques used in the preparation of high-quality baked goods and pastries, maintain sanitation standards and work with diverse food inventories.

PROGRAM OUTCOMES

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Technical Standards form.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/hospitality-tourism/culinary-baking-basics>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10109112	Sanitation for Food Service	1
10316101	Product Identification and Purchasing	2
10316102	Skills Development	3
10316104	Introduction to Baking and Pastry	3

TOTAL 9

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

INTRODUCTION TO BAKING AND PASTRY...introduces learners to the principles and techniques used in the preparation of high-quality baked goods and pastries. Students develop skills in breads, muffins, biscuits, custards, pies, cakes, pastries and specialized desserts. Skills include creaming, blending, meringues, straight dough, custards and frozen desserts. Safety, sanitation and cost control concepts are applied.

PRODUCT IDENTIFICATION AND PURCHASING...focuses on meat and fish grading, classification, and purchasing standards. The proper identification of food products, equipment, and purchasing strategies are covered. Through discussion of quality, use, safe handling, fabrication, and sustainability students will explore the products that are utilized in professional kitchens. Safety, sanitation, and cost control concepts are introduced.

SANITATION FOR FOOD SERVICE...provides face to face food safety training, testing and materials to food service managers. The Serv Safe Manager certification test is included and a passing score earns the Serv Safe Food Protection Manager Certification.

SKILLS DEVELOPMENT...introduces learners to the professional kitchen. Fundamental theories and techniques are explored through basic protein, starch, and vegetable cookery. Knife use, maintenance, and skill development is applied through basic vegetable prep, boning and fillet techniques. Content includes classical vegetable cuts, stock production, thickening agents, timing and multi-tasking, station organization, palate development, and basic culinary terms. Along with your programs of study in Product ID, Baking, Dining Room and Beverage; this course enhances and further promotes your mastery of the basic skills necessary to be successful in the food-service industry. Safety and sanitation, diversity and collaboration, technology as a learning tool, critical thinking and lifelong learning concepts are applied. CONDITION: 103161 Culinary Arts or 313161 Culinary Technical Diploma or 303162 Culinary and Baking Basics Technical Diploma program requirements met

Program Number 10-316-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

If you are creative, enjoy the constantly evolving food service industry, work well with people, and have a love of food, Lakeshore's Culinary Arts Program may be the best place to launch your career. Graduates of the program become chefs, independent restaurateurs, bakers or pastry chefs, sales staff for the food industry, food service managers, and corporate chefs. The program is offered at our state-of-the-art culinary and baking labs on the Cleveland campus. Students learn in a hands-on environment with small faculty-to-student ratios. The program is rich with practical experience in American regional and international cuisines. The program requires day, evening, and some Saturday hours. Lakeshore's Culinary Arts program is accredited by the Accrediting Commission of the American Culinary Federation Education Foundation. Upon graduation, our Associate Degree graduates earn their Certified Culinarian (CC) professional credential through the American Culinary Federation Education Foundation.

PROGRAM OUTCOMES

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.
- Manage food service operations.
- Plan menus.
- Analyze food service financial information.
- Relate food service operations to sustainability.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/hospitality-tourism/culinary-arts>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10109112	Sanitation for Food Service	1
10109108	Dining Room and Beverage Service	2
10316101	Product Identification and Purchasing	2
10316102	Skills Development	3
10316104	Introduction to Baking and Pastry	3
10801196	Oral/Interpersonal Communication	3
10316124	Culinary Math	1
		15
Term 2		
10316107	Introduction to Stocks, Soups and Sauces	2
10316110	Cooking Methods	3
10316111	Garde Manger	2
10316115	Introduction to Restaurant Operations	3
10316138	Culinary Leadership	3
10809172	Introduction to Diversity Studies	3
		16
Term 3		
10316109	Food and Beverage Cost Controls	2
10316122	Classic and Contemporary French Cuisine	3
10316126	Advanced Restaurant Operations	2
10316117	Advanced Patisserie and Desserts	3
10316134	Culinary Internship	2
10806112	Principles of Sustainability	3
		15
Term 4		
10316121	Advanced Garde Manger and Catering	3
10316131	Global Cuisine	3
10316120	Nutrition	2
10801136	English Composition 1	3
10809198	Introduction to Psychology	3
		14
		TOTAL 60

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED GARDE MANGER AND CATERING...covers executing finer techniques in smaller quantities, to allow learners to explore Charcuterie items including sausages, cured and smoked meats. Compound salads, terrines, pates, canapés, and vegetable and fruit displays are covered. Presentation techniques are emphasized including ice sculpting. Catering and buffet concepts are applied. Safety, sanitation and cost control concepts are applied. PREREQUISITE: 10316111 Garde Manger

ADVANCED PATISSERIE AND DESSERTS...introduces learners to new styles of pastries and desserts, per assignments and in group projects and catering events. Content will include production, preparation, plating, garnishing and display of a variety of desserts; all in conjunction with other culinary courses. Skills include buffet and plate composition, various decorating techniques and menu writing. Safety, sanitation and math concepts are applied. PREREQUISITE: 10316104 Intro to Baking

ADVANCED RESTAURANT OPERATIONS...reinforces knowledge and skills learned in Restaurant 1 to begin building on that knowledge. Various French Cuisine, Leadership and Menu Planning concepts are explored and reinforced. PREREQUISITE: 10316115 Intro to Restaurant Operations

CLASSIC AND CONTEMPORARY FRENCH CUISINE...is a more advanced course, including technique, cooking methods, French sauces, line cooking, plating, and how the practice of those skills finds relevance in the professional restaurant kitchen. Students explore the history, culture, and techniques of specific regions in France and many countries influenced by French cooking. Professional recipes are developed, field tested and applied. PREREQUISITE: 10316115 Intro to Restaurant Operations

COOKING METHODS...explore cooking methods and techniques used in contemporary and classical cuisines for the preparation of soups, classic French Sauces, vegetables, starches, meats, poultry and seafoods. Basic concepts of a la minute and a la carte cooking, timing, seasoning and garnishments are introduced. Classical and contemporary styles of plating are incorporated. Teamwork, communication skills, safety and cost control, mise en place, FIFO, Sense of Urgency, Clean as you go are all concepts will be emphasized and applied. PREREQUISITES: 10109112 Sanitation for Food Service and 10316102 Skills Development

CULINARY INTERNSHIP...applies program objectives and competencies under supervision in culinary settings, preparing foods that are cooked to order. Activities may include day, evening, and weekend requirements. Students enhance the learning experience through journal writing and other written assignments. A final program portfolio is required per rubric. PREREQUISITE: Instructor verification of eligibility

CULINARY LEADERSHIP...includes review and application of industry-specific skills needed to master the effective management of a profitable and efficient culinary operation. Includes recipe and product development, menu scripting, time management, principles of leadership, staff motivation, developing a community of excellence, staff scheduling, writing a business plan, developing standard operating procedures, resume and portfolio development, professional development planning, interviewing and public speaking skills.

CULINARY MATH...prepares learners to apply math concepts to culinary and food service settings. Competencies include calculation of basic units of measure, theoretical and actual food cost determination, calculation of yield percentage and edible portion costs as well as the use of conversion charts. COREQUISITES: 10316102 Skills Development and 10316104 Intro to Baking and Pastry

DINING ROOM AND BEVERAGE SERVICE...introduces learners to dining room and beverage service including wine, spirits, beer, mixology, and non-alcoholic drinks. Helps learners refine their customer service and meal delivery skills through the study and application of proper, customer-oriented dining room service environments including etiquette, dining room safety, set-up, styles of table service, and menu knowledge skills. Concepts include histories of table service, psychology of the customer, and service sequence.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

FOOD AND BEVERAGE COST CONTROLS...reinforces cost control concepts and techniques used to aid leaders in recognizing and controlling costs in the food and beverage industry. Students examine cost elements related to food and beverage service while keeping the customers' needs in focus, select and apply methods to set and analyze costs. Students prepare and utilize various Excel spreadsheets to control the costs unique to the food and beverage industry. PREREQUISITE: 10316124 Culinary Math

GARDE MANGER...includes basic concepts of timing, seasoning and fine garnishing. Focus is placed upon the preparation and plating of appetizers and hors d'oeuvre, salads, vegetables, fruits, dressings, garnishing and displays. The learner will participate in a variety of class projects and catering assignments. Teamwork, communication skills, sanitation, safety, cost control, professionalism are emphasized. PREREQUISITE: 10316102 Skills Development

GLOBAL CUISINE...applies skills and methods to production, seasoning, cooking techniques, plate presentation and speed while exploring Central and Eastern Europe, Mediterranean, and Italian cuisines, along with cuisines of the Orient, the Pacific Rim, Latin America, Mexico, India, Caribbean Islands, and Sub-Saharan Africa. Student creativity is emphasized along with all ACF standards of professionalism. Safety, sanitation, and cost control concepts are applied. PREREQUISITE: 10316126 Advanced Restaurant Operations

INTRODUCTION TO BAKING AND PASTRY...introduces learners to the principles and techniques used in the preparation of high-quality baked goods and pastries. Students develop skills in breads, muffins, biscuits, custards, pies, cakes, pastries and specialized desserts. Skills include creaming, blending, meringues, straight dough, custards and frozen desserts. Safety, sanitation and cost control concepts are applied.

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO RESTAURANT OPERATIONS...introduces the learner to functioning in a professional environment. Students will maintain a commercial kitchen and will work together as a team to apply the fundamentals introduced in previous courses, executing preparation techniques and cooking methods with an "a la minute" and service mindset. Students will also explore and develop a range of menus, menu styles, and categories that are employed in the various business segments of the food service industry. PREREQUISITE: 10316102 Skills Development

INTRODUCTION TO STOCKS, SOUPS, AND SAUCES...continues with fundamental principles of classic stocks, soups, and hot and cold sauces. The traditional mother and small sauces are covered. Stabilizing and thickening methods include roux, beurre manie, arrowroot, and puree, reduction, and emulsion techniques. Students practice in the use of tools, utensils, and equipment emphasizing safety and sanitation. CONDITION: 103161 or 103161Z Culinary Arts or 313161 or 313161Z Culinary Technical Diploma program requirements met and PREREQUISITE: 10316102 Skills Development

NUTRITION...introduces the learner to basic nutritional principles. This course will prepare students to apply nutritional concepts in a professional, culinary environment with a focus on the seven nutrients and their characteristics, various populations and meeting their nutritional needs, flavor development, menu planning, and recipe modification. Students will also explore current nutritional issues within the culinary field and within our communities.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PRINCIPLES OF SUSTAINABILITY...prepares students to develop sustainable literacy, analyze interconnections among physical and biological sciences and environmental systems, summarize effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal/recycling in the U.S., and analyze approaches used by your community. Discuss reading academic course support with your Counselor.

PRODUCT IDENTIFICATION AND PURCHASING...focuses on meat and fish grading, classification, and purchasing standards. The proper identification of food products, equipment, and purchasing strategies are covered. Through discussion of quality, use, safe handling, fabrication, and sustainability students will explore the products that are utilized in professional kitchens. Safety, sanitation, and cost control concepts are introduced.

SANITATION FOR FOOD SERVICE...provides face to face food safety training, testing and materials to food service managers. The Serv Safe Manager certification test is included and a passing score earns the Serv Safe Food Protection Manager Certification.

SKILLS DEVELOPMENT...introduces learners to the professional kitchen. Fundamental theories and techniques are explored through basic protein, starch, and vegetable cookery. Knife use, maintenance, and skill development is applied through basic vegetable prep, boning and fillet techniques. Content includes classical vegetable cuts, stock production, thickening agents, timing and multi-tasking, station organization, palate development, and basic culinary terms. Along with your programs of study in Product ID, Baking, Dining Room and Beverage; this course enhances and further promotes your mastery of the basic skills necessary to be successful in the food-service industry. Safety and sanitation, diversity and collaboration, technology as a learning tool, critical thinking and lifelong learning concepts are applied. CONDITION: 103161 Culinary Arts or 313161 Culinary Technical Diploma or 303162 Culinary and Baking Basics Technical Diploma program requirements met

**Program Number 31-316-1
Technical Diploma • Four Terms**
ABOUT THE PROGRAM

If you are creative, enjoy the constantly evolving food service industry, work well with people, and have a love of food, Lakeshore's Culinary Arts Program may be the best place to launch your career. Graduates of the program become chefs, independent restaurateurs, bakers or pastry chefs, sales staff for the food industry, food service managers, and corporate chefs. The program is offered at our state-of-the-art culinary and baking labs on the Cleveland campus. Students learn in a hands-on environment with small faculty-to-student ratios. The program is rich with practical experience in American regional and international cuisines. The program requires day, evening, and some Saturday hours. Lakeshore's Culinary Arts program is accredited by the Accrediting Commission of the American Culinary Federation Education Foundation. Upon graduation, our Associate Degree graduates earn their Certified Culinarian (CC) professional credential through the American Culinary Federation Education Foundation.

PROGRAM OUTCOMES

- Apply principles of safety and sanitation in food service operations.
- Apply principles of nutrition.
- Demonstrate culinary skills.
- Manage food service operations.
- Plan menus.
- Analyze food service financial information.
- Relate food service operations to sustainability.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/hospitality-tourism/culinary-technical-diploma>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

RELATED PROGRAMS

Culinary Arts Associate Degree

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10109112	Sanitation for Food Service	1
10109108	Dining Room and Beverage Service	2
10316101	Product Identification and Purchasing	2
10316102	Skills Development	3
10316104	Introduction to Baking and Pastry	3
10316124	Culinary Math	1
		12
Term 2		
10316107	Introduction to Stocks, Soups and Sauces	2
10316110	Cooking Methods	3
10316111	Garde Manger	2
10316115	Introduction to Restaurant Operations	3
10316138	Culinary Leadership	3
		13
Term 3		
10316109	Food and Beverage Cost Controls	2
10316122	Classic and Contemporary French Cuisine	3
10316126	Advanced Restaurant Operations	2
10316117	Advanced Patisserie and Desserts	3
10316134	Culinary Internship	2
		12
Term 4		
10316121	Advanced Garde Manger and Catering	3
10316131	Global Cuisine	3
10316120	Nutrition	2
10801196	Oral/Interpersonal Communication	3
		11
		TOTAL 48

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED GARDE MANGER AND CATERING...covers executing finer techniques in smaller quantities, to allow learners to explore Charcuterie items including sausages, cured and smoked meats. Compound salads, terrines, pates, canapés, and vegetable and fruit displays are covered. Presentation techniques are emphasized including ice sculpting. Catering and buffet concepts are applied. Safety, sanitation and cost control concepts are applied. PREREQUISITE: 10316111 Garde Manger

ADVANCED PATISSERIE AND DESSERTS...introduces learners to new styles of pastries and desserts, per assignments and in group projects and catering events. Content will include production, preparation, plating, garnishing and display of a variety of desserts; all in conjunction with other culinary courses. Skills include buffet and plate composition, various decorating techniques and menu writing. Safety, sanitation and math concepts are applied. PREREQUISITE: 10316104 Intro to Baking

ADVANCED RESTAURANT OPERATIONS...reinforces knowledge and skills learned in Restaurant 1 to begin building on that knowledge. Various French Cuisine, Leadership and Menu Planning concepts are explored and reinforced. PREREQUISITE: 10316115 Intro to Restaurant Operations

CLASSIC AND CONTEMPORARY FRENCH CUISINE...is a more advanced course, including technique, cooking methods, French sauces, line cooking, plating, and how the practice of those skills finds relevance in the professional restaurant kitchen. Students explore the history, culture, and techniques of specific regions in France and many countries influenced by French cooking. Professional recipes are developed, field tested and applied. PREREQUISITE: 10316115 Intro to Restaurant Operations

COOKING METHODS...explore cooking methods and techniques used in contemporary and classical cuisines for the preparation of soups, classic French Sauces, vegetables, starches, meats, poultry and seafoods. Basic concepts of a la minute and a la carte cooking, timing, seasoning and garnishments are introduced. Classical and contemporary styles of plating are incorporated. Teamwork, communication skills, safety and cost control, mise en place, FIFO, Sense of Urgency, Clean as you go are all concepts will be emphasized and applied. PREREQUISITES: 10109112 Sanitation for Food Service and 10316102 Skills Development

CULINARY INTERNSHIP...applies program objectives and competencies under supervision in culinary settings, preparing foods that are cooked to order. Activities may include day, evening, and weekend requirements. Students enhance the learning experience through journal writing and other written assignments. A final program portfolio is required per rubric. COREQUISITES: 10316121 Advanced Garde Manager and Catering and 10316131 Global Cuisine and PREREQUISITE: instructor verification of eligibility

CULINARY LEADERSHIP...includes review and application of industry-specific skills needed to master the effective management of a profitable and efficient culinary operation. Includes recipe and product development, menu scripting, time management, principles of leadership, staff motivation, developing a community of excellence, staff scheduling, writing a business plan, developing standard operating procedures, resume and portfolio development, professional development planning, interviewing and public speaking skills.

CULINARY MATH...prepares learners to apply math concepts to culinary and food service settings. Competencies include calculation of basic units of measure, theoretical and actual food cost determination, calculation of yield percentage and edible portion costs as well as the use of conversion charts. COREQUISITES: 10316102 Skills Development and 10316104 Intro to Baking and Pastry

DINING ROOM AND BEVERAGE SERVICE...introduces learners to dining room and beverage service including wine, spirits, beer, mixology, and non-alcoholic drinks. Helps learners refine their customer service and meal delivery skills through the study and application of proper, customer-oriented dining room service environments including etiquette, dining room safety, set-up, styles of table service, and menu knowledge skills. Concepts include histories of table service, psychology of the customer, and service sequence.

FOOD AND BEVERAGE COST CONTROLS...reinforces cost control concepts and techniques used to aid leaders in recognizing and controlling costs in the food and beverage industry. Students examine cost elements related to food and beverage service while keeping the customers' needs in focus, select and apply methods to set and analyze costs. Students prepare and utilize various Excel spreadsheets to control the costs unique to the food and beverage industry. PREREQUISITE: 10316124 Culinary Math

GARDE MANGER...includes basic concepts of timing, seasoning and fine garnishing. Focus is placed upon the preparation and plating of appetizers and hors d'oeuvre, salads, vegetables, fruits, dressings, garnishing and displays. The learner will participate in a variety of class projects and catering assignments. Teamwork, communication skills, sanitation, safety, cost control, professionalism are emphasized. PREREQUISITE: 10316102 Skills Development

GLOBAL CUISINE...applies skills and methods to production, seasoning, cooking techniques, plate presentation and speed while exploring Central and Eastern Europe, Mediterranean, and Italian cuisines, along with cuisines of the Orient, the Pacific Rim, Latin America, Mexico, India, Caribbean Islands, and Sub-Saharan Africa. Student creativity is emphasized along with all ACF standards of professionalism. Safety, sanitation, and cost control concepts are applied. PREREQUISITE: 10316126 Advanced Restaurant Operations

INTRODUCTION TO BAKING AND PASTRY...introduces learners to the principles and techniques used in the preparation of high-quality baked goods and pastries. Students develop skills in breads, muffins, biscuits, custards, pies, cakes, pastries and specialized desserts. Skills include creaming, blending, meringues, straight dough, custards and frozen desserts. Safety, sanitation and cost control concepts are applied.

INTRODUCTION TO RESTAURANT OPERATIONS...introduces the learner to functioning in a professional environment. Students will maintain a commercial kitchen and will work together as a team to apply the fundamentals introduced in previous courses, executing preparation techniques and cooking methods with an "a la minute" and service mindset. Students will also explore and develop a range of menus, menu styles, and categories that are employed in the various business segments of the food service industry. PREREQUISITE: 10316102 Skills Development

INTRODUCTION TO STOCKS, SOUPS, AND SAUCES...continues with fundamental principles of classic stocks, soups, and hot and cold sauces. The traditional mother and small sauces are covered. Stabilizing and thickening methods include roux, beurre manie, arrowroot, and puree, reduction, and emulsion techniques. Students practice in the use of tools, utensils, and equipment emphasizing safety and sanitation. CONDITION: 103161 or 103161Z Culinary Arts or 313161 or 313161Z Culinary Technical Diploma program requirements met and PREREQUISITE: 10316102 Skill Development

NUTRITION...introduces the learner to basic nutritional principles. This course will prepare students to apply nutritional concepts in a professional, culinary environment with a focus on the seven nutrients and their characteristics, various populations and meeting their nutritional needs, flavor development, menu planning, and recipe modification. Students will also explore current nutritional issues within the culinary field and within our communities.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PRODUCT IDENTIFICATION AND PURCHASING...focuses on meat and fish grading, classification, and purchasing standards. The proper identification of food products, equipment, and purchasing strategies are covered. Through discussion of quality, use, safe handling, fabrication, and sustainability students will explore the products that are utilized in professional kitchens. Safety, sanitation, and cost control concepts are introduced.

SANITATION FOR FOOD SERVICE...provides face to face food safety training, testing and materials to food service managers. The Serv Safe Manager certification test is included and a passing score earns the Serv Safe Food Protection Manager Certification.

SKILLS DEVELOPMENT...introduces learners to the professional kitchen. Fundamental theories and techniques are explored through basic protein, starch, and vegetable cookery. Knife use, maintenance, and skill development is applied through basic vegetable prep, boning and fillet techniques. Content includes classical vegetable cuts, stock production, thickening agents, timing and multi-tasking, station organization, palate development, and basic culinary terms. Along with your programs of study in Product ID, Baking, Dining Room and Beverage, this course enhances and further promotes your mastery of the basic skills necessary to be successful in the food-service industry. Safety and sanitation, diversity and collaboration, technology as a learning tool, critical thinking and lifelong learning concepts are applied. CONDITION: 103161 Culinary Arts or 313161 Culinary Technical Diploma or 303162 Culinary and Baking Basics Technical Diploma program requirements met

Program Number 10-090-6
Associate Degree in Applied Science • Varies

ABOUT THE PROGRAM

Develop the skills for success in the dairy industry with goals such as directly owning or managing a dairy farm or employment in one of the many supportive fields of the dairy industry. This program is perfect for those already working within the dairy community who are seeking to grow their knowledge; and it is great for those entering the dairy industry. Students participate in hands-on learning with various dairy operations as they develop solid herdsperson skills, proper management, and the ability to utilize technology to improve animal welfare and production. Students gain a solid understanding of how to run an efficient and profitable business operation.

PROGRAM OUTCOMES

- Manage herd nutrition.
- Manage herd reproduction.
- Manage herd health.
- Demonstrate farm and herd record management.
- Develop a business and transition plan.
- Apply economic and marketing strategies.
- Manage farm financials.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/agriculture-food-natural-resources/dairy-business-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- To experience technology and demonstrations in industry, students are required to have transportation and participate throughout the year. Students have the opportunity to join PAS (Professional Agriculture Students) and participate in competitions and activities. Terms 1 and 2 of this curriculum completes the Dairy Herd Management technical diploma.
- If you have completed the Agribusiness Science & Technology degree and wish to pursue this degree, you have completed some Term 1 and 2 course equivalents. Please work with your academic counselor to identify your course schedule.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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920.693.1366 • Recruitment@lakeshore.edu

Catalog No. Proposed Courses
Credit(s)
Term 1

10091200	Introduction to Dairy Cattle Management*	3
10091201	Lactation Physiology and Management*	3
10006203	Nutrition Principles*	3
10006202	Ag Employability and Professionalism*	3
10091202	Dairy Reproductive Management*	3
10091122	Agricultural Industry Internship 1**	1

16
Term 2

10091204	Advanced Dairy Cattle Management*	3
10006218	Advanced Technology in Livestock Production*	3
10091205	Food Animal Production Issues and Advocacy*	1
10809144	Macroeconomics OR 10809143 Microeconomics	3
10804113	College Technical Mathematics 1A OR 10804189 Introductory Statistics	3
10091109	Agricultural Industry Internship 2**	1

14
Term 3

10006209	Agricultural Sales and Consulting*	2
10006201	Introduction to Soil Science*	3
10101150	Office Accounting	3
10809198	Introduction to Psychology	3
10801196	Oral/Interpersonal Communication	3

14
Term 4

10006208	Equipment, Structure, & Power Systems*	3
10006215	Legal Aspects of Agribusiness*	3
10006213	Agricultural Business Management*	3
10006214	Agricultural Commodity Marketing*	3
10801136	English Composition 1	3
10006118	Agribusiness Internship**	1

16
TOTAL 60

*CBE delivery only

**All students (online and in-person) work with instructor to select an appropriate internship based on their career goals.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED DAIRY CATTLE MANAGEMENT...examines the principles of production and management in the modern dairy enterprise. Learner will integrate principles of herd health, nutrition, reproduction, milk production and overall management at the farm level. Learner will develop skills in decision making, information gathering, problem solving, and interpersonal communication with one-on-one site farm rotations and industry related demonstrations and field trips. **PREREQUISITE:** 10091102 Dairy Cattle Management or **COREQUISITE:** 10091200 Intro to Dairy Cattle Management

ADVANCED TECHNOLOGY IN LIVESTOCK PRODUCTION...exposes students to emerging technologies, processes, systems, and trends used in any aspect of livestock production including, but not limited to, the use of robotics and artificial intelligence, animal health monitoring systems, feeding systems, manure handling, records systems, product processing, and marketing. Experiences include demonstrations and visits to farms and agricultural business.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

AGRIBUSINESS INTERNSHIP...provides the student the opportunity to choose from a broad variety of occupational experiences in the agribusiness industry. Student will work with faculty to develop a plan and to identify, coordinate, and evaluate work-associated learning experiences as they relate to the major career focus of the student. **PREREQUISITE:** 10006122 Princ of Crop Production or 10006124 Princ of Animal Breeding or 10091103 Dairy Reproductive Mgt or **COREQUISITE:** 10006207 Princ of Crop Production or 10006211 Princ of Animal Breeding or 10091202 Dairy Reproductive Mgt

AGRICULTURAL BUSINESS MANAGEMENT...provides student with basic business management practices including the development of a business plan, establishment of short- and long-range goals, identification and implementation of alternatives for reaching goals, and development of strategies to monitor progress. The importance of designing a business mission statement based on goals is emphasized. **PREREQUISITE:** 10101150 Office Accounting

AGRICULTURAL COMMODITY MARKETING...provides the student with the fundamentals of agricultural commodity marketing including risk management, futures market structure and function, futures commodity contract specification, as well as futures trading procedures and strategies including hedging and options. Students will engage in practice commodity marketing using a real-world simulator and follow commodity markets and determine sources of variability affecting the futures prices.

AGRICULTURAL INDUSTRY INTERNSHIP 1...provides the students with the ability and skills to perform industry expectations. Each student will be provided a checklist of skills based on area of interest in agriculture production and will work with their employer to complete those skills. **COREQUISITE:** 10006202 Ag Employability and Professionalism

AGRICULTURAL INDUSTRY INTERNSHIP 2...provides the students with enhanced skills beyond Ag Industry Internship 1 that allow the student to improve on skills gained and meet more advanced industry expectations. Each student will continue to work with their employer to complete the checklist of skills used in Ag Industry Internship 1. **PREREQUISITE:** 10091104 On-Farm Internship 1 or **COREQUISITE:** 10091122 Ag Industry Internship 1

AGRICULTURE SALES AND CONSULTING...prepares the student with the tools to become an effective salesperson, including pre-call planning, uncovering customer needs, conducting and completing a sale. Includes the fundamental principles of marketing agricultural products, pricing, merchandising and creating product marketing plans. Students will demonstrate effective communication skills needed to develop positive working relationships in agribusiness including team building, conflict resolution, and industry advocacy.

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

DAIRY REPRODUCTIVE MANAGEMENT...provides technical knowledge and practical skills to design and execute an effective reproductive management program in dairy cattle. Focus will be on key reproductive physiology and practical research results that underlie a successful breeding program. Topics include linear evaluation, selection indexes, anatomy, hormonal cycles, artificial insemination, estrus detection, estrus synchronization, genomics, and advanced genetic techniques. An industry certification is offered during course.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EQUIPMENT, STRUCTURE, & POWER SYSTEMS...introduces the student to trends and opportunities in mechanized agriculture. Students will learn how to work with electrical power and processing, structures and environment, and soil and water conservation engineering practices. Additionally, students will learn operating principles and maintenance of gas and diesel engines used in agriculture.

FOOD ANIMAL PRODUCTION ISSUES AND ADVOCACY...prepares students to be advocates for the food animal production industry. With agriculture becoming more publicized and scrutinized every day, students will learn how to promote and apply these concepts within the industry. Students will learn skills to talk and respond to issues that the food animal production industry faces.

INTRODUCTION TO DAIRY CATTLE MANAGEMENT...introduces the student to herd health and preventative medicine through understanding cow behavior, signs of illness, metabolic disorders, infectious disease, vaccination programs, and herd records to develop and implement a herd-health protocol. Students will learn and use basic tools and equipment of a herd health program and will earn the Dairy Care 365 Certificate.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOIL SCIENCE...provides fundamentals of soil's physical properties, chemical properties, biological properties, soil formation, classification, essential nutrients and soil survey. There will be emphasis on soil and water conservation practices that can be used to reduce soil erosion.

LACTATION PHYSIOLOGY AND MANAGEMENT...introduces the student to the process of how milk is produced and how to harvest it for a maximum profit to the farmer, including the major principles of milk secretion, the anatomy and physiology of the udder, milk letdown, proper milking practices, mastitis, efficient milking systems, and how to properly milk cows as well as treat and prevent udder infections.

LEGAL ASPECTS OF AGRIBUSINESS...provides students with pertinent information of the legal liabilities and regulations of an agribusiness at the state and federal levels. Course content includes legal descriptions, contractual agreements, employee and consumer rights, insurance, debt collection, as well as bankruptcy and employment protection issues as regulated by DOL, OSHA and DWD.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NUTRITION PRINCIPLES...introduces learner to the principles of nutrition as presented on a comparative species basis including characteristics, physiological functions, interrelationships, and deficiency symptoms as they pertain to carbohydrates, fats, proteins, mineral elements, and vitamins. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10006200 Intro to Animal Science or 10091102 Intro Dairy Cattle Mgmt

OFFICE ACCOUNTING...introduces the learner to the principle of business and personal accounting, including journalizing, posting, year-end adjustments, report preparation and interpretation, payroll, and bank reconciliations.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

**Program Number 31-091-1
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

This program provides a foundation of knowledge and skills to manage dairy cattle and to navigate the ever-changing dairy industry. Students participate in hands-on learning with various dairy operations as they develop solid herdsperson skills, proper management techniques, employability skills, and the ability to utilize technology to improve animal welfare and production. This program is perfect for those already working within the dairy community who are seeking to grow their knowledge; and it is great for those entering the dairy industry.

PROGRAM OUTCOMES

- Manage herd nutrition.
- Manage herd reproduction.
- Manage herd health.
- Demonstrate farm and herd record management.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

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ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/agriculture-food-natural-resources/dairy-herd-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Each student will be assigned to a farm for supervised, on-the-job training. An internship agreement will be completed and signed by both the student and farm representative. Students will complete an on-farm placement survey. Students are eligible to receive national artificial insemination certification. To experience technology and demonstrations in industry, students are required to have transportation and participate in these lab activities throughout the year. Program students also have the opportunity to join PAS (Professional Agriculture Students) Organization and participate in their competitions and activities.
- If you would like an associate degree focusing on dairy business operations, the Dairy Business Management program may be your choice. Graduates of this Dairy Herd Management technical diploma attend an additional year of agribusiness classes to achieve this associate degree focusing on Dairy Business Management.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10091200	Introduction to Dairy Cattle Management*	3
10091201	Lactation Physiology and Management*	3
10006203	Nutrition Principles*	3
10006202	Ag Employability and Professionalism*	3
10091202	Dairy Reproductive Management*	3
10091122	Agricultural Industry Internship 1**	1
		16
Term 2		
10091204	Advanced Dairy Cattle Management*	3
10006218	Advanced Technology in Livestock Production*	3
10091205	Food Animal Production Issues and Advocacy*	1
10809144	Macroeconomics	3
10804113	College Technical Mathematics 1A	3
10091109	Agricultural Industry Internship 2**	1
		14
		TOTAL 30

*CBE delivery only

**All students (online and in-person) work with instructor to select an appropriate internship based on their career goals.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED DAIRY CATTLE MANAGEMENT...examines the principles of production and management in the modern dairy enterprise. Learner will integrate principles of herd health, nutrition, reproduction, milk production and overall management at the farm level. Learner will develop skills in decision making, information gathering, problem solving, and interpersonal communication with one-on-one site farm rotations and industry related demonstrations and field trips. PREREQUISITE: 10091102 Dairy Cattle Management or COREQUISITE: 10091200 Intro to Dairy Cattle Management

ADVANCED TECHNOLOGY IN LIVESTOCK PRODUCTION...exposes students to emerging technologies, processes, systems, and trends used in any aspect of livestock production including, but not limited to, the use of robotics and artificial intelligence, animal health monitoring systems, feeding systems, manure handling, records systems, product processing, and marketing. Experiences include demonstrations and visits to farms and agricultural business.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

AGRICULTURAL INDUSTRY INTERNSHIP 1...provides the students with the ability and skills to perform industry expectations. Each student will be provided a checklist of skills based on area of interest in agriculture production and will work with their employer to complete those skills. COREQUISITE: 10006202 Ag Employability and Professionalism

AGRICULTURAL INDUSTRY INTERNSHIP 2...provides the students with enhanced skills beyond Ag Industry Internship 1 that allow the student to improve on skills gained and meet more advanced industry expectations. Each student will continue to work with their employer to complete the checklist of skills used in Ag Industry Internship 1. PREREQUISITE: 10091104 On-Farm Internship 1 or COREQUISITE: 10091122 Ag Industry Internship 1

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

DAIRY REPRODUCTIVE MANAGEMENT...provides technical knowledge and practical skills to design and execute an effective reproductive management program in dairy cattle. Focus will be on key reproductive physiology and practical research results that underlie a successful breeding program. Topics include linear evaluation, selection indexes, anatomy, hormonal cycles, artificial insemination, estrus detection, estrus synchronization, genomics, and advanced genetic techniques. AI industry certification is offered during course.

FOOD ANIMAL PRODUCTION ISSUES AND ADVOCACY...prepares students to be advocates for the food animal production industry. With agriculture becoming more publicized and scrutinized every day, students will learn how to promote and apply these concepts within the industry. Students will learn skills to talk and respond to issues that the food animal production industry faces.

INTRODUCTION TO DAIRY CATTLE MANAGEMENT...introduces the student to herd health and preventative medicine through understanding cow behavior, signs of illness, metabolic disorders, infectious disease, vaccination programs, and herd records to develop and implement a herd-health protocol. Students will learn and use basic tools and equipment of a herd health program and will earn the Dairy Care 365 Certificate.

LACTATION PHYSIOLOGY AND MANAGEMENT...introduces the student to the process of how milk is produced and how to harvest it for a maximum profit to the farmer, including the major principles of milk secretion, the anatomy and physiology of the udder, milk letdown, proper milking practices, mastitis, efficient milking systems, and how to properly milk cows as well as treat and prevent udder infections.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NUTRITION PRINCIPLES...introduces learner to the principles of nutrition as presented on a comparative species basis including characteristics, physiological functions, interrelationships, and deficiency symptoms as they pertain to carbohydrates, fats, proteins, mineral elements, and vitamins. PREREQUISITE: 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or COREQUISITE: 10006200 Intro to Animal Science or 10091200 Intro Dairy Cattle Mgmt

**Program Number 30-508-3
Technical Diploma • One Term**
ABOUT THE PROGRAM

Think about your last dental visit. Your dentist likely worked closely with a dental assistant to perform your exam or procedures. Dental assistants are vital to the safe and efficient operation of the dental office—they assist the dentist in the treatment room, in the lab, and with business administration. If you're interested in a career that focuses on helping people and offers plenty of variety in the workday, dental assistant is a great choice for you.

PROGRAM OUTCOMES

- Perform a variety of entry-level supportive dental procedures.
- Manage infection and hazard control.
- Produce diagnostic radiographs/digital images.
- Perform basic laboratory procedures.
- Demonstrate professional behaviors, ethics, and appearance.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/dental-assisting>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Graduates are eligible to apply for Radiography and Infection Control, two sections of the Dental Assistant National Board Exam. The Chairside section of the exam requires two years of chairside experience.
- Hepatitis B vaccination is strongly recommended.
- CPR and Dental Exam form must be completed before the start of clinical and must be current throughout class.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

31508304	Dental Anatomy*■	2
31508307	Professionalism*■	1
10508103	Dental Radiography	2
10508113	Dental Materials	2
10508101	Dental Health Safety*■	1
31508338	Chairside Lecture*	2
31508339	Chairside Lab*	3
31508306	Dental Assistant Clinical	3

TOTAL 16

*CBE delivery only

■Part-time students take lecture and lab classes together.
Full-time students take all classes in one semester.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

CHAIRSIDE LAB...students will learn the correct way to position themselves on the assistant and clinician stool, how to seat the patient for treatment, and how to assist the dentist with basic dental procedures such as examinations, pain control, amalgam and cosmetic restorations. Students learn to chart oral cavity structures, dental pathology, and restorations. Students learn how to coronal polish and the correct brushing /flossing techniques. CONDITION: 305083 Dental Assisting admission requirements met

CHAIRSIDE LECTURE...students will develop the knowledge about the basic components and equipment of the dental office, and the fundamentals of dental assisting. Students will examine some of the specialties of dental assisting as well as how to handle a patient that may become problematic while assisting. Students learn to focus on the health history to prevent office emergencies. CONDITION: 305083 Dental Assisting admission requirements met

DENTAL & GENERAL ANATOMY...prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients. CONDITION: 305083 Dental Assisting admission requirements met

DENTAL ASSISTANT CLINICAL...allows students to apply the skills developed in Dental Health Safety, Dental Chairside Lec/Lab, Dental Materials Lec/Lab, Dental Radiography Lec/Lab, and Professionalism in a clinical setting with patients. It emphasizes the integration of coreabilities and basic communication skills. COREQUISITES: 31508304 Den Anatomy, 31508307 Professionalism, 10508103 Den Radiography, 10508113 Den Materials, 10508101 Den Health Safety, 31508338 Chairside Lec, 31508339 Chairside Lab and CONDITION: 305083 Dental Assisting admission requirements met

DENTAL ASSISTANT PROFESSIONAL...prepares dental assistant students for professional success in a dental practice or another dental health care environment. Students develop professional appearance and image. More importantly, they learn to work within the ethical guidelines and legal framework. In preparation for entering the work force, dental assistant students customize or develop their portfolios and lay out an on-going professional development plan. CONDITION: 305083 Dental Assisting admission requirements met

DENTAL HEALTH SAFETY...prepares dental assistant 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. CPR certification is a prerequisite; students will be required to show proof of certification before beginning the course. CONDITION: 305083 Dental Assisting admission requirements met

DENTAL MATERIALS...prepares dental auxiliary 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. This course is aligned to serve students in the Dental Hygienist and Dental Assisting programs. CONDITION: 305083 Dental Assisting admission requirements met

DENTAL RADIOGRAPHY...prepares dental auxiliary students to operate radiographic equipment and expose bitewing, periapical, extra oral, and occlusal images. Emphasis is placed on protection against x-ray hazards. Students also produce, mount, and evaluate dental images for diagnostic value. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments. CONDITION: 305083 Dental Assisting admission requirements met

Program Number 10-104-8
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Where creativity and technology meet! Digital marketing is an essential set of 21st century business tools. Students in our program gain knowledge and skills vital to the success of every company. From search engine optimization and digital advertising to connecting to audiences with social media, our graduates are ready to help future employers enhance their web presence and win in a digital market. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Develop digital marketing strategies to anticipate and satisfy market needs.
- Create digital marketing content for products, services, images, and ideas.
- Integrate tools and technology for digital marketing initiatives.
- Analyze the effectiveness of marketing outcomes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
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 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/marketing-sales-service/digital-marketing>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10104102	Principles of Marketing*	3
10102110	Introduction to Business*	3
10104169	Internet Marketing Foundations*	3
10103121	Excel - Level 1*	1
10804189	Introductory Statistics	3
10801136	English Composition 1	3
		16
Term 2		
10103161	PowerPoint - Level 1*	1
10104127	Visual Branded Content*	3
10104177	Content and Copywriting*	2
10104125	Social Media Strategy*	3
10104176	Digital Advertising*	3
10104173	Web Analytics*	2
10809143	Microeconomics	3
		17
Term 3		
10201108	Photoshop*	3
10104178	Video for Promotion*	2
10104136	Retail Marketing & E-Commerce*	3
10104134	PR and Media*	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
		14
Term 4		
10104104	Selling Strategies*	3
10104126	Internship - Digital Marketing*	1
10104175	Advanced Marketing Concepts*	3
10116109	Career Planning and Networking*	1
10104224	Customer Relationship Management*	2
10809198	Introduction to Psychology	3
		13
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED MARKETING CONCEPTS...provides the experience of selecting and researching a company, brand, or business, creating an institutional and event promotion campaign and buying efficient media in order to influence a data-defined market segment. The markets may be local, national, or global. Includes a simulation that will test the students' budget and media buying decisions. **PREREQUISITES:** 10104125 Social Media Strategy and 10104176 Digital Advertising

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

CONTENT AND COPYWRITING...explores content marketing strategies and their effectiveness; such as creation, curation, and repurposing. You will learn to write compelling copy for a variety of audiences and marketing uses, develop a business personality, tone, and voice, and get the right message to the right people through the right media. Includes optimizing headlines, taglines, call-to-actions, infographics, emoji's, hashtags, and copy for effectiveness by using keywords, semantics, credibility, and the correct word choices. **PREREQUISITES:** 10104102 Principles of Marketing and 10104169 Internet Marketing Foundations

CUSTOMER RELATIONSHIP MANAGEMENT...instructs the student in developing customer relationships through a deepened understanding of the concepts and best practices of Customer Relationship Management (CRM).

DIGITAL ADVERTISING...explores the world of advertising on the Internet through display, text, pay-per-click, mobile, email and text messages. You will learn how to initiate, manage and evaluate digital advertising effectively and efficiently using the Google AdWords platform. **PREREQUISITES:** 10104102 Principles of Marketing and 10104169 Internet Marketing Foundations

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

INTERNET MARKETING FOUNDATIONS...explores how businesses use web sites, blogs, mobile apps, and search engine optimization (SEO) to market their business. You will learn basic web design fundamentals, how to use web content management systems, web-based tool connectivity, and use analytics to measure success.

INTERNSHIP-DIGITAL MARKETING...requires students to complete 72 hours (1 credit) of performing work in a business/industrial service setting related to their program outcomes. In addition, students will develop an academic portfolio which reflects upon the program outcomes, core abilities, career goal, educational goal, and course summary of learning. Students will meet with their program instructor to explain their portfolio and complete the technical skills attainment documentation.

INTRODUCTION TO BUSINESS...provides an introduction to the world of business from both the organizational and managerial viewpoint. It examines areas of business including the business environment, business formation, planning, operations, accounting, marketing, human resource management, and building effective teams.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

MICROECONOMICS...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. Discuss reading academic course support with your Counselor.

PHOTOSHOP...prepares the learner to use current industry standard image manipulation software to edit, enhance, and create digital images which are prepared for print and web media. Topics will include an array of photo correction and enhancement methods, photo editing with current industry standard tools, and creating images with AI generative techniques.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

PR AND MEDIA...introduces students to Public Relations principles and the PESO media model. Issues and crisis management, building media relationships, creating press releases, media kits, and on-message communication through traditional and digital channels are emphasized.

PRINCIPLES OF MARKETING...introduces the student to the consumer decision process model, the bases used to segment a market, basic concepts about goods, services, and ideas, the nature of supply chain and distribution, integrated marketing communications, and the stages of the product life cycle and their impact on the marketing mix.

RETAIL MARKETING AND ECOMMERCE...teaches how to determine if that is the case and where it is best to sell – stand alone or an online marketplace. You will learn about the steps to set up an e-commerce web site including shopping carts, payment gateways, and converting order processing into a shopping cart process. This class will also discuss some of the laws and regulations to consider and explore for domestic and global e-commerce. **PREREQUISITE:** 10104102 Principles of Marketing and 10104173 Web Analytics

SELLING STRATEGIES...prepares the student to understand the business to consumer selling process, the technological advancement in selling, and the importance of customer relationship management. **PREREQUISITE:** 10104102 Principles of Marketing

SOCIAL MEDIA STRATEGY...explores current and up-and-coming online platforms, applications, and tracking methods for social media and determine how they are revolutionizing the marketing landscape. You will set up social media accounts, learn basic terminology, and incorporate best practices into marketing strategies. You will learn which platforms fit best with an organization's strategic goals, how to integrate content across them, interpret the analytics, and tailor them to maximize results.

SPEECH...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. Discuss reading academic course support with your Counselor.

VIDEO FOR PROMOTION...covers fundamental techniques of video editing, sound editing, live video and creatively implementing video as a storytelling medium. Students will explore current video trends and best practices per social channels and integrate these techniques into a social media campaign. Additional topics will include YouTube channel creation, advertising, and best practices. **PREREQUISITES:** 10104125 Social Media Strategy and 10104127 Visual Branded Content

VISUAL BRANDED CONTENT...teaches creating visual marketing content for social media, email campaigns, print, and more using various design software platforms. Special emphasis on understanding and following brand standards as well as literacy of file types, considerations for designing for print, and production tips.

WEB ANALYTICS...teaches marketing analytics software, how it works, how to set goals and then measure the effectiveness of the web tools in meeting those goals. Emphasis on proficiency with Google Analytics platform. **PREREQUISITES:** 10104169 Internet Marketing Foundations and 10103121 Excel-Level 1

**Program Number 31-104-5
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

Master the fundamentals of digital marketing with this tech-driven embedded marketing program. This one-year diploma focuses on modern business skills: optimize websites for search, managing social media accounts, creating branded graphics and content, and more! Modern marketers will get the technical skills they need to promote products, services, and organizations with relevant, digital tools. A perfect first step for those new to the marketing field and those who want to update their skills. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Utilize tools and technology for digital marketing initiatives.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
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 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/marketing-sales-service/digital-marketing-specialist>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Adobe software is provided through the college at the college. You can purchase Adobe for a reduced rate for personal use.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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Catalog No.	Class Title	Credit(s)
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10103121	Excel - Level 1*	1
10804189	Introductory Statistics	3
10801136	English Composition 1	3
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Term 2		
10103161	PowerPoint - Level 1*	1
10104127	Visual Branded Content*	3
10104177	Content and Copywriting*	2
10104125	Social Media Strategy*	3
10104176	Digital Advertising*	3
10104173	Web Analytics*	2
10809143	Microeconomics	3
		17
		TOTAL 33

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

CONTENT AND COPYWRITING...explores content marketing strategies and their effectiveness; such as creation, curation, and repurposing. You will learn to write compelling copy for a variety of audiences and marketing uses, develop a business personality, tone, and voice, and get the right message to the right people through the right media. Includes optimizing headlines, taglines, call-to-actions, infographics, emoji's, hashtags, and copy for effectiveness by using keywords, semantics, credibility, and the correct word choices. PREREQUISITES: 10104102 Principles of Marketing and 10104169 Internet Marketing Foundations

DIGITAL ADVERTISING...explores the world of advertising on the Internet through display, text, pay-per-click, mobile, email and text messages. You will learn how to initiate, manage and evaluate digital advertising effectively and efficiently using the Google AdWords platform. PREREQUISITES: 10104102 Principles of Marketing and 10104169 Internet Marketing Foundations

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

INTERNET MARKETING FOUNDATIONS...explores how businesses use web sites, blogs, mobile apps, and search engine optimization (SEO) to market their business. You will learn basic web design fundamentals, how to use web content management systems, web-based tool connectivity, and use analytics to measure success.

INTRODUCTION TO BUSINESS...provides an introduction to the world of business from both the organizational and managerial viewpoint. It examines areas of business including the business environment, business formation, planning, operations, accounting, marketing, human resource management, and building effective teams.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

MICROECONOMICS...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. Discuss reading academic course support with your Counselor.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

PRINCIPLES OF MARKETING...introduces the student to the consumer decision process model, the bases used to segment a market, basic concepts about goods, services, and ideas, the nature of supply chain and distribution, integrated marketing communications, and the stages of the product life cycle and their impact on the marketing mix.

SOCIAL MEDIA STRATEGY...explores current and up-and-coming online platforms, applications, and tracking methods for social media and determine how they are revolutionizing the marketing landscape. You will set up social media accounts, learn basic terminology, and incorporate best practices into marketing strategies. You will learn which platforms fit best with an organization's strategic goals, how to integrate content across them, interpret the analytics, and tailor them to maximize results.

VISUAL BRANDED CONTENT...teaches creating visual marketing content for social media, email campaigns, print, and more using various design software platforms. Special emphasis on understanding and following brand standards as well as literacy of file types, considerations for designing for print, and production tips.

WEB ANALYTICS...teaches marketing analytics software, how it works, how to set goals and then measure the effectiveness of the web tools in meeting those goals. Emphasis on proficiency with Google Analytics platform. PREREQUISITES: 10104169 Internet Marketing Foundations and 10103121 Excel-Level 1

ABOUT THE PROGRAM

The Early Childhood Education program 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 OUTCOMES

- Apply child development theory to practice
- Cultivate relationships with children, family and the community
- Assess child growth and development
- Use best practices in teaching and learning
- Demonstrate professionalism
- Integrate health, safety and nutrition practices

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/education-training/early-childhood-education>.

APPROXIMATE COSTS

- \$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.
- Fingerprint-based background check current fee of \$39 (subject to change)

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- CPR/AED and First Aid certification must be completed before the start of Field Experience 1 and remain current throughout the placement.
- ECE: Health, Safety & Nutrition is a prerequisite to Field Placement 1. To keep a student on track to graduation, this course is offered summer, fall and spring terms. In addition, Field Placement 1 is offered fall and spring terms. Field Placements 2, 3, and 4 are offered summer, fall and spring. Please meet with your Lakeshore academic counselor to plan the best path for you.
- Field Placement 1 students are required to attend all course reflections to receive required trainings (36 hours of lecture + 72 hours of field experience).
- Field Placements 2, 3, and 4 students are required to attend all course reflection forums as well as scheduled field experience hours for each practicum course (36 hours of lecture + 72 hours of field experience). Students successfully completing year one of the associate degree program are able to graduate with a Child Care Services technical diploma. See academic counselor for details.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10307167	ECE: Health, Safety, and Nutrition*	3
10307160	ECE: Field Experience 1	3
10307148	ECE: Foundations of Early Childhood Education*	3
10307151	ECE: Infant & Toddler Development*	3
10307110	ECE: Social Studies, Art & Music*	3
10801136	English Composition 1	3
		18
Term 2		
10307170	ECE: Field Experience 2	3
10307179	ECE: Child Development*	3
10307188	ECE: Guiding Children's Behavior*	3
10307108	ECE: Early Language & Literacy*	3
10809172	Introduction to Diversity Studies	3
		15
Term 3		
10307190	ECE: Field Experience 3	3
10307195	ECE: Family and Community Relationships*	3
10307187	ECE: Children with Differing Abilities*	3
10804189	Introductory Statistics	3
10809196	Introduction to Sociology	3
		15
Term 4		
10307210	ECE: Field Experience 4	3
10307112	ECE: STEM*	3
10801198	Speech	3
10809198	Introduction to Psychology	3
		12
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ECE: CHILD DEVELOPMENT...examines child development within the context of the early childhood education setting. This course focuses on children ages 3 -8 years.

ECE: CHILDREN WITH DIFFERING ABILITIES...focuses on the child with differing abilities in an inclusive early childhood education setting while examining strategies for cultivating partnerships with families and community supports.

ECE: GUIDING CHILDREN'S BEHAVIOR...examines positive strategies to guide children's behavior in the early childhood education setting. This course meets the requirements of the Wisconsin Pyramid Model training.

ECE: HEALTH, SAFETY AND NUTRITION...examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. This course includes training for Abusive Head Trauma, SIDS, and Mandated Reporter certifications.

ECE: EARLY LANGUAGE & LITERACY...explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age.

ECE: FAMILY AND COMMUNITY RELATIONSHIPS...examines the role of relationships with family and community in early childhood education. In this course, students will complete the Strengthening Families Training.

ECE: FIELD EXPERIENCE 1...you will be introduced to the foundations of early childhood education under guided supervision of a mentor teacher in an early childhood setting, working with children birth through age 8. This course meets the requirements for the Wisconsin Model Early Learning Standards 18-hour training. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307167 ECE: Health, Safety, and Nutrition

ECE: FIELD EXPERIENCE 2...you will assist the mentor teacher in carrying out classroom routines and implementing developmentally appropriate learning experiences that promote child development and learning through play. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307160 ECE: Field Experience 1

ECE: FIELD EXPERIENCE 3...you will support young children's development through observation, assessment, and implementation of developmentally appropriate teaching strategies. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307170 ECE: Field Experience 2

ECE: FIELD EXPERIENCE 4...you will demonstrate a comprehensive understanding of children and families as you practice the lead teacher role to design, implement, and evaluate a connected unit of learning experiences. **CONDITION:** 103071 Early Childhood Education or 313071 Child Care Services admission requirements met and **PREREQUISITE:** 10307190 ECE: Field Experience 3

ECE: FOUNDATIONS OF EARLY CHILDHOOD EDUCATION...introduces the early childhood profession through a historical overview of the field. The course will explore program trends, quality indicators, and developmentally appropriate practices for children birth to age 8.

ECE: INFANT AND TODDLER DEVELOPMENT...explores infant and toddler development as it applies to an early childhood education setting. This course focuses children conception through thirty-six months. This course includes training for Wisconsin Breastfeeding Friendly Child Care certification.

ECE: SOCIAL STUDIES, ART, & MUSIC...focuses on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

ECE: STEM...focuses on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.

ENGLISH COMPOSITION 1...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. Discuss reading academic course support with your Counselor.

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

SPEECH...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. Discuss reading academic course support with your Counselor.

Program Number 10-620-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Change is constant. Change is rapid. In the world of manufacturing, technology change brings more complex systems of assembly, control measurement, and material processing of manufactured products. If you're good at problem solving, like working with automated manufacturing equipment, and you're looking forward to work that continuously challenges you to keep growing your knowledge and skills—consider an always-evolving career in our Electro-Mechanical Technology program.

PROGRAM OUTCOMES

- Perform work safely.
- Troubleshoot electrical and mechanical systems and devices.
- Repair electrical and mechanical systems.
- Communicate technical information.
- Integrate electrical and mechanical systems and devices.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/electro-mechanical-automation-technology>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

- Maintenance Mechanic
- Electro-Mechanical Maintenance Technician
- Manufacturing Engineering Technology
- Industrial Electrician Apprenticeship
- Maintenance Technician Apprenticeship

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10804113	College Technical Math 1A OR 10804198 Calculus 1** (4 cr)	3
10620105	DC Fundamentals	2
10620255	Hydraulics and Pneumatics*	3
10620122	Industrial Wiring	2
10620169	Robotic Mechanical Maintenance	1
10620224	Microcontroller Programming*	1
10462207	Tools and Measurement*	1
10801136	English Composition 1	3
		16
Term 2		
10620110	AC Fundamentals	2
10620238	Programmable Controllers-Allen Bradley*#	3
10620141	Industrial Controls and Motors	3
10806154	General Physics 1	4
10809198	Introduction to Psychology	3
10801196	Oral/Interpersonal Communication	3
		18
Term 3		
10620164	Electromechanical Systems	2
10620247	Electronic Devices/Transducers*	2
10620240	Programmable Controllers - Allen Bradley Advanced*#	2
10620168	Robotics Introduction#	2
10620294	Touch Screen Applications*#	2
10620298	Industrial Networks*#	2
10620293	NEC Codes*#	1
10620230	Mechanical Drive Systems*	3
		16
Term 4		
10620195	Industrial Troubleshooting	1
10620197	Analog Controls	2
10620171	Robotics Advanced#	2
10620151	Electrical Robotic Maintenance	2
10620185	Robotic Integration	1
10620299	Integration of Manufacturing*	2
10620196	Industrial Applications	4
10809196	Introduction to Sociology OR 10809144 Macroeconomics OR 10809143 Microeconomics	3
		17
		TOTAL 67

*CBE delivery only

#Class may qualify for continuing education units (CEUs) for electricians.

**Calculus 1 is designed for students planning to transition to a 4-year college following Lakeshore program completion.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AC FUNDAMENTALS...prepares the student to analyze electrical circuits using AC math, analyze AC waveforms, measure and analyze AC power, analyze capacitors and inductors in DC and AC circuits, analyze AC circuits containing reactance and calculate resonance, apply the elements and properties of basic measuring circuits, and describe transformer characteristics. PREREQUISITE: 10620105 DC Fundamentals or 10660105 DC Fundamentals

ANALOG CONTROLS...introduces instrumentation used for process control. The student will test, calibrate, install, and commission transmitters in varied processes. PREREQUISITE: 10660110 AC Fund or PREREQS: 10620110 AC Fund, 10620141 Indust Controls & Motors, 10620140 Prog Contr AB Adv, 10620194 Touch Screen App, 10620147 Electronic Dev/Transducers, 10620198 Industr Networks or COREQ: 10620298 Industr Networks

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

DC FUNDAMENTALS...prepares the student to convert values to scientific and engineering notations; calculate math quantities; describe basic atomic theory; identify basic electrical terms; use established symbols standards; describe DC voltage characteristics and current sources and electrical resistance; measure and analyze electrical quantities in series and parallel circuits; and desolder/solder single lead components. COREQUISITE: 10804113 College Tech Math 1A or 10804115 College Tech Math 1 or 10804198 Calculus 1 or 10804118 Intern Algebra with Apps

ELECTRICAL ROBOTIC MAINTENANCE...introduces students to causes of error codes and their repair with Fanuc R30iB controller. Students will also be trained in DCS, Ethernet communication and I/O. PREREQUISITES: 10620169 Robotic Mechanical Maintenance, 10620122 Industrial Wiring and 10620168 Robotics Introduction

ELECTROMECHANICAL SYSTEMS...prepares the student to communicate with, tune, run, and troubleshoot Allen-Bradley servos; utilize electrical control of hydraulic systems, explore PID control of motor speed; and investigate open and closed loop control systems. PREREQUISITE: 10620104 Fluid Power 2 or 10620155 or 10620255 Hydraulics and Pneumatics and COREQUISITE: 10620110 or 10660110 AC Fundamentals

ELECTRONIC DEVICES/TRANSDUCERS...prepares students to learn the operation of transducers that measure process variables such as temperature, pressure, and level. Students will investigate input transducers and determine how they interface with industrial control systems. Transmitters will be analyzed, configured, and calibrated to properly indicate the physical characteristic being measured. PREREQUISITE: 10660110 AC Fundamentals or COREQUISITE: 10620110 AC Fundamentals

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

GENERAL PHYSICS 1...presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversions and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves. PREREQUISITE: 10804113 College Tech Math 1A. Discuss math academic course support with your Counselor.

HYDRAULICS AND PNEUMATICS...prepares the learner to identify hydraulic and pneumatic component symbols and terms, adjust a pressure relief valve, analyze the operation of a pilot operated relief valve; analyze Pascal's law; evaluate flow, velocity, work and power in industrial hydraulic and pneumatic circuits; analyze meter-in, meter-out, and bypass flow control circuits; identify basic hydraulic and pneumatic control valves; and assemble hydraulic circuits. COREQUISITE: 10804113 College Tech Math 1A

INDUSTRIAL APPLICATIONS...prepares the learner to configure, install, troubleshoot and maintain automation equipment in a "real world" setting. This course will include wiring and configuring automation equipment, wiring and configuring industrial networks, wiring, programming and troubleshooting PLCs and touchscreens. These practices will be applied to create and maintain a manufacturing process. This course is highly computer based. PREREQUISITES: 10620104 Fluid Power 2 or 10620155 or 10620255 Hydraulics/Pneumatics, & 10620194 or 10620294 Touch Screen App/ & 10620168 Robotics Intro & 10620198 or 10620298 Industrial Networks & 10620193 NEC Codes & COREQ: 10620195 Indust Troubleshooting

INDUSTRIAL CONTROLS AND MOTORS...prepares the learner to select control devices by function and operation; illustrate electrical circuits using symbols, diagrams, and abbreviations; explain the operation of magnetic solenoids and apply motor control techniques and introduces the student to three-phase power motor circuits for industrial applications. PREREQUISITE: 10620122 Industrial Wiring and COREQUISITE: 10620110 AC Fundamentals or PREREQUISITE: 10660110 AC Fundamentals

INDUSTRIAL NETWORKS...prepares the learner to configure, install and troubleshoot industrial communication networks. This course is highly computer based. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians. PREREQUISITE: 10620140 Programmable Controls AB Advanced or COREQUISITE: 10620240 Programmable Controls AB Advanced

INDUSTRIAL TROUBLESHOOTING...prepares the learner to conduct effective machine control troubleshooting techniques with an understanding of preventive maintenance methods designed to minimize motor and controls issues between preventive maintenance measures. COREQUISITE: 10620141 Industrial Controls and Motors

INDUSTRIAL WIRING...prepares the learner to follow safety procedures; maintain a safe and healthy work environment; construct electrical circuits; measure electrical quantities using a VOM and/or DVM; analyze measured values using electrical circuit laws; construct typical industrial control circuits; and analyze typical industrial control circuits.

INTEGRATION OF MANUFACTURING...provides the learner with a detailed examination of automated processes and devices that are integrated together in a manufacturing environment. PREREQUISITES: 10620140 Prog Contr AB Adv, 10620194 Touch Screen Apps, 10620147 Elec Devices/Transducers, 10620141 Ind Cntrs & Motors, 10620198 Ind Networks or COREQUISITE: 10620298 Ind Networks

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

MECHANICAL DRIVE SYSTEMS...prepares the learner to use tools and fasteners safely; identify belt and chain drive components; install and adjust belt and chain drives; apply bearing and lubrication information; perform coupling alignment using straight edge, feeler gauge, and dial indicator and laser methods; identify various gear drives; calculate gear ratios; and analyze first-, second-, and third-class levers.

MICROCONTROLLER PROGRAMMING...introduces the learner to concepts in basic digital programming, programming logic, electronic components, and Digital and Analog I/O.

NEC CODES...introduces the learner to National Electric Codes NFPA 70. Prepares the learner to apply NFPA 70 to motor and control installations and repairs. Class may qualify for 24 hours of Continuing Education Units (CEUs) for Electricians. PREREQUISITE: 10620141 Industrial Controls and Motors

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PLCS ADVANCED...prepares the learner to develop applications utilizing subroutine instructions, analog modules; gain a basic understanding of creating and troubleshooting programs using the ControlLogix, Studio5000 software. This course is highly computer based. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians. PREREQUISITE: 10620138 Prog Cntrs/AB

PROGRAMMABLE CONTROLLERS - ALLEN BRADLEY...prepares the learner to understand basic PLC structure and terminology; learn to create and troubleshoot basic PLC programs using the RSLOGIX 500 software and the RSLINX communication software; become familiar with communicating with programming SLC-500 PLCs. This course is highly computer based. Class may qualify for 64 hours of Continuing Education Units (CEUs) for Electricians.

ROBOTIC INTEGRATION...students will examine the integration of Fanuc robots into industrial automation systems, involving Rockwell touch screens, PLCs, and industrial communication networks. Students will be required to complete an integration project using a Fanuc robotic cell. The project will tie everything learned during their time together – safety, machine integration, vision systems, machine applications for robotics, troubleshooting, and work documentation. COREQUISITES: 10620171 Robotics Advanced and 10620151 Electrical Robotic Maintenance

ROBOTIC MECHANICAL MAINTENANCE...introduces the students to the robot teach pendant and robot jogging. Students will be taught to replace servo motors, recalibrate the robot and back up robot software and programs.

ROBOTICS ADVANCED...introduces students to adv robot programming commands to include use of Fanuc IRvision on both Fanuc Robotic arm and Delta Robots. Once a student completes both Robotic Introduction and Robotics Advanced they will be well prepared to take the Fanuc Certification test by NOCTI. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians. PREREQUISITE: 10620168 Robotics Introduction

ROBOTICS INTRODUCTION...introduces the student to robotic axes, movement control, navigating the teach pendant, robotic frames, basic programming commands such as conditional branching, wait and call instructions. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians.

TOOLS AND MEASUREMENT...prepares the learner to use hand tools, precision measuring instruments, and torque tools.

TOUCH SCREEN APPLICATIONS...prepares the learner to create, edit, and troubleshoot screens, objects and I/O related to the FactoryTalkME application. Learners will create, edit and communicate with Allen-Bradley PLC programs for real-time control utilizing the touchscreen applications. This course is highly computer based. This class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians. PREREQUISITE: 10620140 Programmable Controls AB Advanced or COREQUISITE: 10620240 Programmable Controls AB Advanced

Program Number 10-462-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Times are changing in the field of maintenance. Facilities are running with both manual and automated equipment and both need to be maintained and repaired. If you enjoy troubleshooting, working with your hands, and have an interest in electrical and mechanical processes, this career path is for you. The program prepares students to maintain and repair both manual and automated equipment. It covers areas like mechanical power, hydraulics, and motor controls.

PROGRAM OUTCOMES

- Demonstrate safe work procedures.
- Install industrial and robotic equipment and systems.
- Maintain industrial and robotic equipment and systems.
- Troubleshoot industrial and robotic equipment and systems.
- Repair industrial and robotic equipment and systems.
- Communicate technical information.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/electro-mechanical-maintenance-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Students may need to supply their own safety glasses and welding gloves.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

- Electro-Mechanical Automation Technology
- Millwright Apprenticeship
- Industrial Electrician Apprenticeship
- Maintenance Technician Apprenticeship

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10804113	College Technical Math 1A OR 10804198 Calculus 1** (4 cr)	3
10462207	Tools and Measurement*	1
10462209	Maintenance Introduction*	1
10462211	Maintenance Print Reading*	2
10462127	Bearings and Lubrication	2
10420294	Machine Tool Introduction*	2
10442100	Safety and Welding Fundamentals*	1
10457203	Maintenance Fabrication*	1
10462215	Layout and Rigging*	1
		14
Term 2		
10620255	Hydraulics and Pneumatics*	3
10462117	Power Transmission	3
10462123	Pumps, Fluid/Air Handling	2
10462121	Troubleshooting and Machine Repair	3
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
10801196	Oral/Interpersonal Communication	3
		16
Term 3		
10620122	Industrial Wiring	2
10620105	DC Fundamentals	2
10620169	Robotic Mechanical Maintenance	1
10620224	Microcontroller Programming*	1
10620168	Robotics Introduction	2
10809198	Introduction to Psychology	3
10801136	English Composition 1	3
		14
Term 4		
10620151	Electrical Robotic Maintenance	2
10620110	AC Fundamentals	2
10620164	Electromechanical Systems	2
10620238	Programmable Controllers - Allen Bradley*	3
10620141	Industrial Controls and Motors	3
10620195	Industrial Troubleshooting	1
10809144	Macroeconomics OR 10809143 Microeconomics	3
		16
		TOTAL 60

Term 1

10804113	College Technical Math 1A OR 10804198 Calculus 1** (4 cr)	3
10462207	Tools and Measurement*	1
10462209	Maintenance Introduction*	1
10462211	Maintenance Print Reading*	2
10462127	Bearings and Lubrication	2
10420294	Machine Tool Introduction*	2
10442100	Safety and Welding Fundamentals*	1
10457203	Maintenance Fabrication*	1
10462215	Layout and Rigging*	1

14

Term 2

10620255	Hydraulics and Pneumatics*	3
10462117	Power Transmission	3
10462123	Pumps, Fluid/Air Handling	2
10462121	Troubleshooting and Machine Repair	3
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
10801196	Oral/Interpersonal Communication	3

16

Term 3

10620122	Industrial Wiring	2
10620105	DC Fundamentals	2
10620169	Robotic Mechanical Maintenance	1
10620224	Microcontroller Programming*	1
10620168	Robotics Introduction	2
10809198	Introduction to Psychology	3
10801136	English Composition 1	3

14

Term 4

10620151	Electrical Robotic Maintenance	2
10620110	AC Fundamentals	2
10620164	Electromechanical Systems	2
10620238	Programmable Controllers - Allen Bradley*	3
10620141	Industrial Controls and Motors	3
10620195	Industrial Troubleshooting	1
10809144	Macroeconomics OR 10809143 Microeconomics	3

16

TOTAL 60

*CBE delivery only

**Calculus 1 is designed for students planning to transition to a 4-year college following Lakeshore program completion.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AC FUNDAMENTALS...prepares the student to analyze electrical circuits using AC math, analyze AC waveforms, measure and analyze AC power, analyze capacitors and inductors in DC and AC circuits, analyze AC circuits containing reactance and calculate resonance, apply the elements and properties of basic measuring circuits, and describe transformer characteristics. PREREQUISITE: 10620105 DC Fundmntls or 10660105 DC Fundamentals

BEARINGS AND LUBRICATION...prepares the learner to properly identify, remove, install, and maintain both plain and rolling element bearings used with either a radial or axial load, including ball, cylindrical roller, tapered roller, linear, and thrust bearings; use manufacturers' resources for proper usage and life of bearings; and look at proper types, properties, and application methods of lubrication. PREREQUISITE: 10462109 Maintenance Intro or 31462309 Industrial Maintenance Intro or COREQUISITES: 10804113 College Tech Math 1A and 10462209 Maintenance Intro

COLLEGE TECHNICAL MATHEMATICS 1A...prepares student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

DC FUNDAMENTALS...prepares the student to convert values to scientific and engineering notations; calculate math quantities; describe basic atomic theory; identify basic electrical terms; use established symbols standards; describe DC voltage characteristics and current sources and electrical resistance; measure and analyze electrical quantities in series and parallel circuits; and desolder/solder single lead components. COREQUISITE: 10804113 College Tech Math 1A or 10804115 College Tech Math 1 or 10804198 Calculus 1 or 10804118 Interm Algebra with Apps

ELECTRICAL ROBOTIC MAINTENANCE...introduces students to causes of error codes and their repair with Fanuc R30iB controller. Students will also be trained in DCS, Ethernet communication and I/O. PREREQUISITES: 10620169 Robotic Mechanical Maintenance, 10620122 Industrial Wiring and 10620168 Robotics Introduction

ELECTROMECHANICAL SYSTEMS...prepares the student to communicate with, tune, run, and troubleshoot Allen-Bradley servos; utilize electrical control of hydraulic systems, explore PID control of motor speed; and investigate open and closed loop control systems. PREREQUISITE: 10620104 Fluid Power 2 or 10620155 or 10620255 Hydraulics and Pneumatics and COREQUISITE: 10620110 or 10660110 AC Fundamentals

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

HYDRAULICS AND PNEUMATICS...prepares the learner to identify hydraulic and pneumatic component symbols and terms, adjust a pressure relief valve, analyze the operation of a pilot operated relief valve; analyze Pascal's law; evaluate flow, velocity, work and power in industrial hydraulic and pneumatic circuits; analyze meter-in, meter-out, and bypass flow control circuits; identify basic hydraulic and pneumatic control valves; and assemble hydraulic circuits. COREQUISITE: 10804113 College Tech Math 1A

INDUSTRIAL CONTROLS AND MOTORS...prepares the learner to select control devices by function and operation; illustrate electrical circuits using symbols, diagrams, and abbreviations; explain the operation of magnetic solenoids and apply motor control techniques and introduces the student to three-phase power motor circuits for industrial applications. PREREQUISITE: 10620122 Industrial Wiring and COREQUISITE: 10620110 AC Fundamentals or PREREQUISITE: 10660110 AC Fundamentals

INDUSTRIAL TROUBLESHOOTING...prepares the learner to conduct effective machine control troubleshooting techniques with an understanding of preventive maintenance methods designed to minimize motor and controls issues between preventive maintenance measures. COREQUISITE: 10620141 Industrial Controls and Motors

INDUSTRIAL WIRING...prepares the learner to follow safety procedures; maintain a safe and healthy work environment; construct electrical circuits; measure electrical quantities using a VOM and/or DVM; analyze measured values using electrical circuit laws; construct typical industrial control circuits; and analyze typical industrial control circuits.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

LAYOUT AND RIGGING...prepares the learner to perform layout skills for industrial maintenance to include machine layout, proper rigging, installation, and leveling with emphasis on baseline layout, machine rigging and installation, machine leveling, and alignment procedures. PREREQUISITE: 10462109 Maintenance Introduction or COREQUISITE: 10462209 Maintenance Introduction

MACHINE TOOL INTRODUCTION...prepares the learner with the skills to identify basic types of machining processes, follow standard shop safety rules, use semi-precision and precision measuring tools, perform workpiece layout procedures, identify metal composition and classification, follow cutoff machine safety rules, operate vertical and horizontal cutoff machines, follow sensitive drill press safety rules, identify drill press components, interpret attributes of hole-producing tools, and operate a sensitive drill press.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

MAINTENANCE FABRICATION...introduces the learner to various types of structural steel, sheet metal, and pipe, and prepares the learner to perform fabrication from assembly prints, including cutting, welding, bending, straightening, and repair. PREREQUISITE: 31442346 Industrial Maintenance Intro to Welding or 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals

MAINTENANCE INTRODUCTION...prepares the learner to apply basic safety, mechanics, force, friction, work, and energy; learn terminology related to maintenance; introduction to threaded and non-threaded fasteners and concrete anchoring; learn to use precision measuring tools; introduction to single-phase and three-phase motor wiring. PREREQUISITE: 31462325 Maintenance Tools and Measurement or 10462107 Tools and Measurement or COREQUISITE: 10462207 Tools and Measurement

MAINTENANCE PRINT READING...prepares the learner to read prints; make isometric sketches; interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

MANUAL LATHE OPERATION...prepares the learner to perform lathe facing, turning, hole producing and threading operations safely.

MANUAL MILL OPERATION...prepares the learner to perform squaring, slot milling and hole producing using a vertical mill machine safely.

MICROCONTROLLER PROGRAMMING...introduces the learner to concepts in basic digital programming, programming logic, electronic components, and Digital and Analog I/O.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

POWER TRANSMISSION...introduces the learner to belt, chain, and gear drives used in industrial maintenance applications, including v-belts, flat belts, timing belts, conveyor chains, roller chains, bevel gears, worm gears, helical gears, spur gears, couplings, and alignment with emphasis on identification, installation, repair, and maintenance. COREQUISITE: 10462127 Bearings and Lubrication or PREREQUISITE: 10462125 Bearings and Lubrication

PROGRAMMABLE CONTROLLERS - ALLEN BRADLEY...prepares the learner to understand basic PLC structure and terminology; learn to create and troubleshoot basic PLC programs using the RSLOGIX 500 software and the RSLINX communication software; become familiar with communicating with programming SLC-500 PLCs. This course is highly computer based. Class may qualify for 64 hours of Continuing Education Units (CEUs) for Electricians.

PUMPS, FLUID/AIR HANDLING...prepares the learner to identify, install, repair, and maintain common pumps and plumbing applications, including centrifugal pumps, diaphragm pumps, packing and seals, tubing, and installing hose and piping used with fluid and air handling. PREREQUISITES: 10620155 Hydraulics and Pneumatics and 10462119 Power Transmission or COREQUISITES: 10620255 Hydraulics and Pneumatics and 10462117 Power Transmission and 10804113 College Technical Math 1A

ROBOTIC MECHANICAL MAINTENANCE...introduces the students to the robot teach pendant and robot jogging. Students will be taught to replace servo motors, recalibrate the robot and back up robot software and programs.

ROBOTICS INTRODUCTION...introduces the student to robotic axes, movement control, navigating the teach pendant, robotic frames, basic programming commands such as conditional branching, wait and call instructions. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

TOOLS AND MEASUREMENT...prepares the learner to use hand tools, precision measuring instruments, and torque tools.

TROUBLESHOOTING AND MACHINE REPAIR...prepares the learner to perform essential troubleshooting, repair, and preventive maintenance of various machine tools and installations used in industrial maintenance and to integrate the skills learned in the other maintenance courses to perform complete repair of machine tools. PREREQUISITE: 10462119 Power Transmission or COREQUISITES: 10462117 Power Transmission and 10462123 Pumps, Fluid/Air Handling and PREREQUISITE: 10462115 Layout and Rigging or COREQUISITE: 10462125 Layout and Rigging

Program Number 30-531-3
Technical Diploma • One Term

ABOUT THE PROGRAM

Injuries, trauma, sudden illness—medical emergencies can happen at any time, in any place. Survival often depends on the initial care the injured or severely ill person receives at the scene. If you are calm under pressure, compassionate, good at problem solving, and have the desire to help people in need, a career as an Emergency Medical Technician (EMT) may be an excellent choice for you.

PROGRAM OUTCOMES

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate EMT skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state competencies for EMT certification.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/emergency-medical-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

SPECIAL NOTE

Lakeshore College's Emergency Medical Technician program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
30531307	Emergency Medical Technician Part 1 Lecture	1
30531309	Emergency Medical Technician Part 1 Lab	1
10531105	Emergency Medical Technician Part 2 Lecture	3
10531106	Emergency Medical Technician Part 2 Lab	1

TOTAL 6

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

EMERGENCY MEDICAL TECHNICIAN PART 1 LAB...is the skills lab portion of the EMT Part I course content. Students will practice and be evaluated on the various EMT skills that apply to their EMT Part I lecture topics. Upon successful completion of EMT Part I lecture and lab classes, candidates will be eligible to participate in the National Registry exams for Wisconsin EMR certification. Students that are already certified as WI EMRs may be eligible for Credit for Prior Learning in lieu of taking this course. CONDITION: 305313 EMT program requirements met

EMERGENCY MEDICAL TECHNICIAN PART 1 LECTURE...is designed for future EMTs & Emergency Medical Responders includes: basic human anatomy, performing a patient assessment, traumatic injury management, airway management, and basic cardiac resuscitation. Upon successful completion of EMT Part I lecture & lab classes, candidates will be eligible to participate in the National Registry exams for Wisconsin EMR certification. Students that are certified as WI EMRs may be eligible for Credit Learning in lieu of taking this course. CONDITION: 305313 EMT program requirements met

EMERGENCY MEDICAL TECHNICIAN PART 2 LAB...is the skills lab portion of the EMT Part 2 course content. Students will practice and be evaluated on the various EMT skills that apply to their EMT Part 2 lecture topics. Upon successful completion of EMT Part 2 Lecture and Lab classes, candidates will be eligible to participate in the National Registry of EMTs Emergency Medical Technician exams for Wisconsin EMT licensure. PREREQUISITE: 30531301 EMT Part 1 or COREQUISITE: 30531309 EMT Part 1 Lab or National EMR Certification and CONDITION: 305313 EMT program requirements met

EMERGENCY MEDICAL TECHNICIAN PART 2 LECTURE...advances on the foundational concepts of Part 1 to include pharmacology, pathophysiology, operating an ambulance, and medication administration. Students will also complete a clinical rotation in a hospital Emergency Department. Upon successful completion of EMT Part 2 Lecture and Lab classes, candidates will be eligible to participate in the National Registry of EMTs Emergency Medical Technician exams for Wisconsin EMT licensure. PREREQUISITE: 30531301 EMT Part 1 or 30531307 EMT Part 1 Lecture or National EMR Certification and CONDITION: 305313 EMT program requirements met

**Program Number 31-531-1
Technical Diploma • Three Terms**
ABOUT THE PROGRAM

Life can bring about unfortunate events of medical or traumatic emergency; a Paramedic is a highly trained and skilled medical professional ready to assist those in need. Paramedics integrate Advanced Life Support treatment measures into the challenging emergency healthcare environment. The Technical Diploma EMT-Paramedic is an entry level educated Paramedic meeting the minimum national educational standards.

PROGRAM OUTCOMES

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competency listed for paramedic certification(s).

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/emergency-medical-technician-paramedic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- The Lakeshore College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). 25400 US Highway 19 N., Suite 158, Clearwater, FL 33756. Phone: 727-210-2350. Web: www.caahep.org.
- Lakeshore College's EMT-Paramedic program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

RELATED PROGRAMS

- Paramedic Technician Associate Degree
- Fire Medic

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Spring)		
10531911	EMS Fundamental	2
10531912	Paramedic Medical Principles	4
10531913	Advanced Patient Assessment Principles	3
10531914	Advanced Pre-Hospital Pharmacology	3
10531915	Paramedic Respiratory Management	2
10531916	Paramedic Cardiology 1	1
10531926	Paramedic Essentials 1	1
10531930	Paramedic Clinical 1	1
		17
Term 2 (Summer)		
10531918	Advanced Emergency Resuscitation	1
10531922	EMS Operations	1
10531927	Paramedic Essentials 2	1
10531928	Paramedic Clinical 2	2
10531932	Paramedic Cardiology 2	3
		8
Term 3 (Fall)		
10531919	Paramedic Medical Emergencies	4
10531920	Paramedic Trauma	3
10531921	Special Patient Populations	3
10531923	Paramedic Capstone	1
10531929	Paramedic Field Clinical	2
10531931	Paramedic Internship	1
10531933	Paramedic Essentials 3	1
		15
		TOTAL 40

To contact CoAEMSP:
8301 Lakeview Parkway, Suite 111-312
Rowlett, TX 75088
214-703-8445 Fax 214-703-8992
www.coaemsp.org

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED EMERGENCY RESUSCITATION...provides ACLS and PALS knowledge and skills preparing the 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 with intervention to prevent respiratory and/or cardiac arrest if possible. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531916 Paramedic Cardiology

ADVANCED PATIENT ASSESSMENT PRINCIPLES...provides knowledge of scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531912 Paramedic Medical Principles

ADVANCED PRE-HOSPITAL PHARMACOLOGY...provides student with comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the health of the patient. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531913 Advanced Patient Assessment Principles

EMS FUNDAMENTAL...provides comprehensive knowledge of EMS systems, safety, well-being, legal issues and ethical issues with intended outcome of improving EMS personnel, patients and the community. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and PREREQUISITES: 30531307, 30531309, 10531105, 10531106 EMT Lecture/Lab Parts 1 and 2 or EMT WI License

EMS OPERATIONS...provides the knowledge of operational roles and responsibilities to ensure patient, public and EMS personnel safety. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531918 Advanced Emergency Resuscitation

MEDICAL EMERGENCIES...provides student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology, & pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. CONDITION: 105311 Paramedic Tech or 315311 EMT Paramedic or 105312 Fire Medic prog reqs met and COREQUISITE: 10531918 Adv Emergency Resuscitation

PARAMEDIC CAPSTONE...provides the final opportunity to incorporate knowledge and skills through labs and scenario-based practice and evaluations prior to taking the NREMT written and practical exams. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531922 EMS Operations

PARAMEDIC CARDIOLOGY 1...provides the principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and a plan for a patient with a cardiovascular complaint. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531915 Paramedic Respiratory Management

PARAMEDIC CARDIOLOGY 2...continues the paramedic's knowledge of cardiology. Incorporates basic and advanced electrocardiogram rhythm interpretation as well as introduces students to Advanced Cardiovascular Life Support (ACLS).

PARAMEDIC CLINICAL 1...allows paramedics their first experiences providing advanced level skills and assessments on patients in a healthcare setting. Students will be assigned to an area hospital to begin their clinical training and meeting their assigned clinical competencies. Activities may include rotations within hospital emergency depts, operating rooms, intensive care units, and/or rotations with lab or respiratory staff. COREQUISITE: 10531911 EMS Fund and CONDITION: 105311 Paramedic Tech or 105312 Fire Medic or 315311 EMT Paramedic prog admission requirements met

PARAMEDIC CLINICAL 2...provides student with opportunity to enhance their learning through the skills practice in a health care environment experience with actual patients under the supervision of approved preceptors or high-fidelity human patient simulator. CONDITION: 105311 Paramedic Tech or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531930 Paramedic Clin 1

PARAMEDIC ESSENTIALS 1...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will apply assessment and skill knowledge while demonstrating paramedic level skills in a variety of scenarios and environments.

PARAMEDIC ESSENTIALS 2...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will evaluate patient presentations in short scenarios, formulate and reassess treatment plans while performing skills need to carry out patient treatments. Students will participate in learning and demonstrate first responder health and wellbeing during this section. CONDITION: 105311 Paramedic Technician or 105312 Fire Medic or 315311 EMT Paramedic program admission requirements met

PARAMEDIC ESSENTIALS 3...provides a continued growth in patient assessment, treatment plans and skills working toward the mastery of paramedic level patient care. The focus of this sections will include complete patient care, team management, responder health and wellbeing, and daily operations. Students will demonstrate mastery of knowledge and skills in classroom activities and extended scenarios.

PARAMEDIC FIELD CLINICAL...provides student with the opportunity to enhance their learning through the practice in the prehospital environment with actual patients under the supervision of approved preceptors. Students will be assigned to an area Paramedic ambulance service provider to incorporate their previously acquired capabilities into prehospital patient care. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531918 Advanced Emergency Resuscitation

PARAMEDIC INTERNSHIP...demonstrates to paramedic students their team leadership capabilities while assessing, formulating treatments plans, and delegating tasks to their EMS team members. Students will be assigned to an area paramedic ambulance service to complete requirements during this capstone field internship.

PARAMEDIC MEDICAL PRINCIPLES...provides the knowledge of anatomy, physiology and pathophysiology of major human systems while also introducing the students to shock, immunology and bleeding. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531911 EMS Fundamentals

PARAMEDIC RESPIRATORY MANAGEMENT...provides specific knowledge pertaining to the respiratory system and to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a respiratory complaint. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531914 Advanced Prehospital Pharmacology

PARAMEDIC TRAUMA...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met

SPECIAL PATIENT POPULATIONS...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for patient with special needs. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531920 Paramedic Trauma

Program Number 10-531-2
Associate Degree in Applied Science • Five Terms

ABOUT THE PROGRAM

A Firefighter Paramedic (Fire Medic) protects life and property through fire suppression, rescue, prevention, and emergency medical treatment capabilities. Graduates are highly trained in the modern firefighting techniques and Paramedic skills necessary to make them successful in the dynamic emergency services environment.

PROGRAM OUTCOMES

- Prepare for incident response and emergency operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competencies listed for paramedic certification(s).
- Perform essential firefighting skills to reduce loss of life and property.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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- Complete the online Student Success Questionnaire.
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 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/fire-medic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- The Lakeshore College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). 25400 US Highway 19 N., Suite 158, Clearwater, FL 33756. Phone: 727-210-2350. Web: www.caahep.org.
- Students will be required to acquire a Wisconsin Commercial Driver's Instructional Permit during the Fire Apparatus Engineer course.
- Lakeshore College's program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.
- To complete the clinical portion of this program, pulmonary function test and immunization documentation will be required.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1 (Spring)

10503145	Firefighting Principles Part 1	2
10503146	Firefighting Principles Part 2	2
10503913	Company Level Inspections	1
10801195	Written Communication	3
10809198	Introduction to Psychology	3
10801196	Oral/Interpersonal Communication	3
		14

Term 2 (Fall)

10503107	Fire Apparatus Engineer	3
10503144	Advanced Firefighting Concepts	2
10503914	Fire Rescue Scenarios	1
10806189	Basic Anatomy	3
10809166	Introduction to Ethics	3
		12

Term 3 (Spring)

10531911	EMS Fundamental	2
10531912	Paramedic Medical Principles	4
10531913	Advanced Patient Assessment Principles	3
10531914	Advanced Pre-Hospital Pharmacology	3
10531915	Paramedic Respiratory Management	2
10531916	Paramedic Cardiology 1	1
10531926	Paramedic Essentials 1	1
10531930	Paramedic Clinical 1	1
		17

Term 4 (Summer)

10531918	Advanced Emergency Resuscitation	1
10531922	EMS Operations	1
10531928	Paramedic Clinical 2	2
10531927	Paramedic Essentials 2	1
10531932	Paramedic Cardiology 2	3
		8

Term 5 (Fall)

10531919	Medical Emergencies	4
10531920	Paramedic Trauma	3
10531921	Special Patient Populations	3
10531923	Paramedic Capstone	1
10531929	Paramedic Field Clinical	2
10531931	Paramedic Internship	1
10531933	Paramedic Essentials 3	1
		15

TOTAL 66

To contact CoAEMSP:
8301 Lakeview Parkway, Suite 111-312
Rowlett, TX 75088
214-703-8445 Fax 214-703-8992
www.coaemsp.org

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED EMERGENCY RESUSCITATION...provides ACLS and PALS knowledge and skills preparing the 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 with intervention to prevent respiratory and/or cardiac arrest if possible. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531916 Paramedic Cardiology

ADVANCED FIREFIGHTING CONCEPTS...advances previously learned concepts to build a stronger foundation while exposing the learner to new concepts such as vehicle extrication, technical rescue, flammable liquids fire suppression, and team leadership/management. This course meets the requirements of NFPA 1001 for the Firefighter II level. PREREQUISITE: 10503145 Firefighting Principles 1 and 10503146 Firefighting Principles 2

ADVANCED PATIENT ASSESSMENT PRINCIPLES...provides knowledge of scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. CONDITION: 105311 Paramedic Tech or 315311 EMT Paramedic or 105312 Fire Medic program reqs met and COREQUISITE: 10531912 Paramedic Medical Principles

ADVANCED PRE-HOSPITAL PHARMACOLOGY...provides student with comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the health of the patient. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program reqs met and COREQUISITE: 10531913 Adv Patient Assessment Principles

BASIC ANATOMY...examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems. Discuss reading academic course support with your Counselor.

COMPANY LEVEL INSPECTIONS...familiarizes the students with state and local regulations and national codes relating to fire prevention. The course presents the necessary information for performing company level fire inspections.

EMS FUNDAMENTAL...provides comprehensive knowledge of EMS systems, safety, well-being, legal issues and ethical issues with intended outcome of improving EMS personnel, patients and the community. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and PREREQUISITES: 10531102 EMT Basic or 30531301 EMT Part 1 or EMT WI License

EMS OPERATIONS...provides knowledge of operational roles and responsibilities to ensure patient, public & EMS personnel safety. CONDITION: 105311 Paramedic Tech or 315311 EMT Paramedic or 105312 Fire Medic prog reqs met and COREQ: 10531918 Adv Emerg Resuscitation

FIRE APPARATUS ENGINEER...prepares firefighters to drive and operate fire department emergency apparatus. Course presents theories of hydraulics applied to the fire service, with emphasis on mathematics, and formulas used in operating fire apparatus pumps. Students receive lecture and practical training on maintenance, driving, operating on-board pumps and equipment, and apparatus testing. Course content meets the NFPA 1002 requirement for fire department pumper driver/operator. THIS COURSE REQUIRES STUDENTS TO HAVE A CDL INSTRUCTIONAL PERMIT BY THE 3RD WEEK OF CLASS. CONDITION: 105312 Fire Medic prog reqs met

FIRE RESCUE SCENARIOS...reinforces student learning through practice of firefighting skills in a controlled environment utilizing simulation and realistic fire-rescue scenarios with the guidance of instructors. COREQUISITES: 10503144 Advanced Firefighting Concepts and 10503107 Fire Apparatus Engineer

FIREFIGHTER PRINCIPLES PART 1...builds the foundation for a successful firefighting career. Topics presented will include personal protective equipment, firefighter safety, search and rescue, forcible entry, hoselines, awareness of hazardous materials, nozzles, salvage and overhaul, ground ladders, and entry level interior and exterior firefighting. Students successfully completing this course will meet the Wisconsin requirements for an entry level firefighter.

FIREFIGHTER PRINCIPLES PART 2...advances on the foundations presented in Part I. Students will acquire the remaining job performance requirements to meet National Firefighter level 1 qualifications. Topics will include: history of the fire service, ropes and knots, advanced forcible entry, size up and response priorities, fireground communications, hazardous materials operations, and preparation for the Firefighter Level I examination process.

INTRODUCTION TO ETHICS: THEORY AND APPLICATION...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. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

MEDICAL EMERGENCIES...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531918 Advanced Emergency Resuscitation

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PARAMEDIC CAPSTONE...provides the final opportunity to incorporate knowledge and skills through labs and scenario-based practice and evaluations prior to taking the NREMT written and practical exams. CONDITION: 105311 Paramedic Tech or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531922 EMS Operations

PARAMEDIC CARDIOLOGY 1...provides the principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and a plan for a patient with a cardiovascular complaint. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531915 Paramedic Respiratory Management

PARAMEDIC CARDIOLOGY 2...continues the paramedic's knowledge of cardiology. Incorporates basic and advanced electrocardiogram rhythm interpretation as well as introduces students to Advanced Cardiovascular Life Support (ACLS).

PARAMEDIC CLINICAL 1...allows paramedics their first experiences providing advanced level skills and assessments on patients in a healthcare setting. Students will be assigned to an area hospital to begin their clinical training and meeting their assigned clinical competencies. Activities may include rotations within hospital emergency departments, operating rooms, intensive care units, and/or rotations with lab or respiratory staff. COREQUISITE: 10531911 EMS Fundamentals and CONDITION: 105311 Paramedic Technician or 105312 Fire Medic or 315311 EMT Paramedic program admission requirements met

PARAMEDIC CLINICAL 2...provides student with the opportunity to enhance their learning through the skills practice in a health care environment experience with actual patients under the supervision of approved preceptors or high-fidelity human patient simulator. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531930 Paramedic Clinical 1

PARAMEDIC ESSENTIALS 1...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will apply assessment and skill knowledge while demonstrating paramedic level skills in a variety of scenarios and environments.

PARAMEDIC ESSENTIALS 2...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will evaluate patient presentations in short scenarios, formulate and reassess treatment plans while performing skills need to carry out patient treatments. Students will participate in learning and demonstrate first responder health and wellbeing during this section. CONDITION: 105311 Paramedic Tech or 105312 Fire Medic or 315311 EMT Paramedic program admission reqs met

PARAMEDIC ESSENTIALS 3...provides a continued growth in patient assessment, treatment plans and skills working toward the mastery of paramedic level patient care. The focus of this sections will include complete patient care, team management, responder health and wellbeing, and daily operations. Students will demonstrate mastery of knowledge and skills in classroom activities and extended scenarios.

PARAMEDIC FIELD CLINICAL...provides student with the opportunity to enhance their learning through the practice in the prehospital environment with actual patients under the supervision of approved preceptors. Students will be assigned to an area Paramedic ambulance service provider to incorporate their previously acquired capabilities into prehospital patient care. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531918 Advanced Emergency Resuscitation

PARAMEDIC INTERNSHIP...demonstrates to paramedic students their team leadership capabilities while assessing, formulating treatments plans, and delegating tasks to their EMS team members. Students will be assigned to an area paramedic ambulance service to complete requirements during this capstone field internship.

PARAMEDIC MEDICAL PRINCIPLES...provides the knowledge of anatomy, physiology and pathophysiology of major human systems while also introducing the students to shock, immunology and bleeding. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531911 EMS Fundamentals

PARAMEDIC RESPIRATORY MANAGEMENT...provides specific knowledge pertaining to the respiratory system and to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a respiratory complaint. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531914 Advanced Prehospital Pharmacology

PARAMEDIC TRAUMA...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program reqs met

SPECIAL PATIENT POPULATIONS...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for patient with special needs. CONDITION: 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and COREQUISITE: 10531920 Paramedic Trauma

WRITTEN COMMUNICATION...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents. COREQUISITE: Writing placement assessment or equivalent AND Reading placement assessment or equivalent

Program Number 10-522-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Teaching is one of the most rewarding jobs in the world. As an educational assistant (paraprofessional), you can make a difference by working directly under the supervision of a licensed classroom teacher to implement teacher-created lesson plans. You will likely work with small groups of students in the areas of reading or math as well as in one-on-one instructional settings. Some of the responsibilities you might have include tutoring in the content areas of reading, writing, math, and science; implementing teacher created plans in small group learning center activities; and offering technical support in the classroom.

Educational assistants/paraprofessionals are used in K-12 for reading, writing, and math at the elementary, middle school, and high school classroom settings. You may work in the regular classroom or in a special education classroom with students who require additional support. The program covers the needs of special education students as well as the general population.

- Paraeducator
- Instructional Assistant
- Special Education Para-professional
- Early Education Teacher
- Teacher Assistant

PROGRAM OUTCOMES

- Demonstrate instructional support strategies for content areas.
- Implement developmentally appropriate practices to foster learning.
- Adapt instruction to meet the diverse needs of all learners.
- Use proactive classroom management techniques.
- Perform professional responsibilities.
- Incorporate the reflective process to promote professional growth.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/education-training/foundations-teacher-education>

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10522103	EDU: Introduction to Education Practices*	3
10522104	EDU: Technology in Education*	3
10522106	EDU: Child & Adolescent Development*	3
10522112	EDU: Equity in Education*	3
10801136	English Composition 1	3
		15

Term 2

10522102	EDU: Techniques in Reading*	3
10522119	EDU: Techniques in Social Studies*	3
10522120	EDU: Techniques in Science*	3
10522129	EDU: Practicum 1*	3
10804189	Introductory Statistics	3
		15

Term 3

10522105	EDU: Behavior Management*	3
10522107	EDU: Overview of Special Education*	3
10522124	EDU: Supporting Students with Disabilities*	3
10801198	Speech OR 10801196 Oral & Interpersonal Communication	3
10809198	Introduction to Psychology	3
		15

Term 4

10522114	EDU: Techniques in Language Arts*	3
10522118	EDU: Techniques in Math*	3
10522131	EDU: Practicum 2*	3
10809172	Introduction to Diversity Studies	3
10522108	Social Emotional Learning and Mental Health	3
		15

TOTAL 60

*Denotes course only offered in CBE

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

EDU: BEHAVIOR MANAGEMENT...analyze the behavior of students in educational settings. Emphasis will be given to examining the influences on behavior and creating proactive learning environments through behavioral interventions and support. Students will evaluate strategies for creating a safe and supportive classroom environment. PREREQUISITE: 10522103 EDU: Introduction to Education Practices

EDU: CHILD & ADOLESCENT DEVELOPMENT...analyze the physical, cognitive and social-emotional development of children with an emphasis on school age children and adolescents. Students examine environmental factors that influence child development. Developmental theories will be summarized and related to current teaching practices.

EDU: EQUITY IN EDUCATION...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.

EDU: INTRODUCTION TO EDUCATION PRACTICES...analyze preK-12 education in the United States, determine roles and responsibilities of school personnel, and explore current trends and best practices. Students identify how students learn and the foundations of lesson planning. Students analyze assessment strategies, classroom management, and techniques for supporting learners.

EDU: OVERVIEW OF SPECIAL EDUCATION...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. PREREQUISITE: 10522106 EDU: Child & Adolescent Development

EDU: PRACTICUM 1...apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners while demonstrating professionalism. Students begin the reflective process. PREREQUISITES: 10522103 EDU: Introduction to Education Practices, 10522104 EDU: Technology in Education, 10522106 EDU: Child & Adolescent Development, 10522112 EDU: Equity in Education

EDU: PRACTICUM 2...apply the skills learned in previous program courses in a school setting while under the supervision of a Department of Public Instruction certified teacher. Students support learners and while demonstrating professionalism. Students apply job search skills. PREREQUISITES: 10522124 EDU: Supporting Students with Disabilities and 10522129 EDU: Practicum 1

EDU: SUPPORTING STUDENTS WITH DISABILITIES...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. PREREQUISITE: 10522106 EDU: Child & Adolescent Development

EDU: TECHNIQUES IN LANGUAGE ARTS...be introduced to the science and art of teaching language arts. Evidence-based approaches and assessments will be examined and practiced. Students will create a literature file through the exploration of a variety of children's/young adult literature. PREREQUISITE: 10522106 EDU: Child & Adolescent Development

EDU: TECHNIQUES IN MATH...learn key terminology and research-based strategies to support learners in math domains: numbers, base ten operations, algebraic thinking, geometry, probability/statistics and measurement and data. Current practice including manipulatives, problem solving, and assessment will be covered within the framework of state and national standards.

EDU: TECHNIQUES IN READING...provide students with a solid foundation for effective literacy instruction in K – 9 grade classrooms. The course will focus on the major five elements of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. Phonological Awareness will also be addressed. This course will review research-based teaching strategies, instructional materials as well as methods and assessments for effective and inclusive literacy instruction. PREREQUISITE: 10801136 English Composition 1

EDU: TECHNIQUES IN SCIENCE...introduce the content and processes of teaching science. Students explore science processes, strategies, procedures, assessment options and factors affecting science learning. Students practice strategies for assisting with group and individual activities in science. This course provides a foundation in the concepts and models of hands-on, student-centered science and its assessment as described in WI DPI Science Standards and Next Generation Science Standards (NGSS). PREREQUISITES: 10522106 EDU: Child & Adolescent Development and 10801136 English Composition 1

EDU: TECHNIQUES IN SOCIAL STUDIES...analyze current content in social studies education as recommended by the National Council for Social Studies and Wisconsin DPI. Students design learning opportunities for the five content areas of social studies: Geography, History, Behavioral Sciences (Culture and Society), Political Science (Civics and Government), and Economics that incorporate the social studies inquiry practices and processes. PREREQUISITES: 10522106 EDU: Child & Adolescent Development and 10801139 English Composition 1

EDU: TECHNOLOGY IN EDUCATION...teach and learn with information and technology rather than about information and technology. Students will analyze all aspect of information and technology literacy as well as begin their digital professional teaching portfolio.

ENGLISH COMPOSITION 1...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. COREQUISITE: Writing placement assessment or equivalent AND Reading placement assessment or equivalent

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. COREQUISITE: Reading placement assessment or equivalent

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. COREQUISITE: Reading placement assessment or equivalent

INTRODUCTORY STATISTICS...prepares students to 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. COREQUISITE: Math placement assessment or equivalent AND Reading placement assessment or equivalent

SOCIAL EMOTIONAL LEARNING AND MENTAL HEALTH...examine mental health and social emotional learning in school age children. An overview of mental health, social-emotional needs, behaviors, and strategies to support students are explored. Topics include: student awareness, relationship building, behavior management, empathy, stress management, an awareness of school and community resources and support for families.

SPEECH...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. COREQUISITE: Reading placement assessment or equivalent

Program Number 10-528-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

This shared program with Milwaukee Area Technical College (MATC) equips you with the skills and knowledge to excel in all aspects of funeral service. The comprehensive curriculum covers everything from embalming procedures and funeral arranging to grief counseling, business management, and the legal and religious considerations surrounding death care. Internships provide valuable real-world experience working alongside professionals in the field. With state-of-the-art facilities and dedicated instructors, you will graduate prepared to take the National Board Exam and launch a fulfilling career as a licensed funeral director and embalmer.

PROGRAM OUTCOMES

- 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.
- 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.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit MATC's online application and complete their admission steps.
- Submit Lakeshore's online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/human-services/funeral-services>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid through MATC with a consortium agreement. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

This program is shared with MATC. Lakeshore students follow MATC's admission process as well as Lakeshore's admission process prior to enrolling in term one of the program. The Funeral Services Apprenticeship course (2 days, 8 hours per day) is required before completing the Funeral Services petition process with MATC. Terms three and four of the program, as well as the program graduation will be completed through MATC.

CONTACT

Lakeshore College Recruiter
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Catalog No.	Class Title	Credit(s)
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Term 1

10801136	English Composition 1	3
10806177	General Anatomy & Physiology	4
10809198	Introduction to Psychology	3
10806134	General Chemistry	4
		14

Term 2

10801196	Oral Interpersonal Communication	3
10809196	Introduction to Sociology	3
10806197	Microbiology	4
10102160	Business Law 1	3
10101155	Accounting for Professionals* OR	3
	10101111 Accounting 1 (4 cr)	
		16

Term 3 - held at MATC

FUNERL-104	Funeral Service Field Experience 1	2
FUNERL-110	Introduction to Funeral Service	2
FUNERL-112	Laws, Rules and Regulations of Funeral Service	3
FUNERL-114	Pathology of Funeral Service	2
FUNERL-116	Funeral Service Practices	4
FUNERL-121	National Board Exam Prep 1	1
FUNERL-134	Embalming Theory	3
FUNERL-135	Embalming Lab 1	1
		18

Term 4 - held at MATC

FUNERL-105	Funeral Service Field Experience II	2
FUNERL-118	Funeral Service Management	3
FUNERL-123	Restorative Art	3
FUNERL-122	National Board Exam Prep II	1
FUNERL-136	Funeral Service Science	2
FUNERL-153	Psychology of Funeral Service	3
FUNERL-137	Funeral Service Management Lab	1
FUNERL-124	Restorative Art Lab	1
FUNERL-119	Embalming Lab 2	1
		17

TOTAL 65

* CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING FOR PROFESSIONALS...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

EMBALMING LAB 1...this lab will allow the student to employ hands-on learning, preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from the Embalming Theory course to properly prepare the deceased to an acceptable physical appearance through the use of industry standard instruments, chemicals, and techniques.

EMBALMING LAB 2...continuation of Embalming Lab 1. Lab allows the student to expand on the process of preparing deceased individuals for viewings in a funeral setting. Students will apply knowledge from their combined lecture courses (Embalming Theory, Restorative Art, Thanatochemistry, Anatomy, Field Experience) and utilize industry standard instruments, chemicals, and techniques to embalm, dress, casket and cosmetize the deceased.

EMBALMING THEORY...students will learn the basics of the embalming process and study of the phenomenon of death in the human body, government regulations applicable to the embalming process, embalming analysis and reporting, embalming techniques and instrumentation, procedures and treatments for handling the deceased, including difficulties encountered due to disease and pathological changes, autopsies and procurement cases, organ and tissue donation cases, and various conditions encountered in the dead human body. Students practice embalming in laboratories provided by or approved by the college.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

FUNERAL SERVICE FIELD EXPERIENCE...students currently enrolled in Semester 1 of the Funeral Service program are required to take part in the "day-to-day" funeral activities at a participating funeral home establishment for a total of 8 hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. PREREQUISITE: Must be admitted to Funeral Service 105281 program.

FUNERAL SERVICE FIELD EXPERIENCE...students currently enrolled in Semester 2 of the Funeral Service program are required to take part in the "day-to-day" funeral activities at a participating funeral home establishment for a total of eight hours per week to gain hands-on experience in all facets of funeral directing. Required tasks include embalming under the supervision of a licensed funeral director, cosmetizing, observing arrangement conferences, assisting with conducting services and any other related tasks in funeral service. Report submissions will be required of students throughout the term of the class documenting their tasks and progress. Prerequisite(s): Must be admitted to the Funeral Service (10-528-1) program.

FUNERAL SERVICE MANAGEMENT...basic principles of business and management covered, then applied to funeral establishments and operations. All areas of small business mngmnt are studied, including considerations of starting, buying, and managing a funeral home. Also included a detailed study of funeral home merchandise, including caskets, outer burial containers, cremation products, focusing on construction, merchandising, and presentation.

FUNERAL SERVICE MANAGEMENT LAB...the focus of the FUNERL 137 Lab is to practice, through roleplaying, all components of the funeral arrangement conference with effective and professional interpersonal communication. Prepares student for a capstone project conducting a simulated arrangement conference, demonstrating ability to plan funeral services, provide final disposition options, create an obituary, convey legal reqs and disclosures, facilitate merchandise selection, discuss pricing, and complete the funeral contract. Various scenarios pertaining to notification of death to the funeral home are also simulated.

FUNERAL SERVICE PRACTICES...this course focuses on duties, responsibilities, and expectations of the funeral director relating to funeralization from the first notification of death through final disposition of the deceased. This includes procedures for various religious customs as practiced in the U.S., along with secular, military and fraternal funeral practices. Creating a meaningful and personalized funeral is also emphasized. PREREQUISITE: Must be admitted to the Funeral Service 105281 program.

FUNERAL SERVICE SCIENCE...discusses the study of the morphology, taxonomy, physiology, transmission and control of microbes, especially those which cause disease in humans. The process of infectious disease and defense mechanisms of disease will be covered.

GENERAL ANATOMY AND PHYSIOLOGY...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. 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. PREREQ: 10806134 Gen Chem or equiv. Discuss rdg academic course support w/ Counselor.

GENERAL CHEMISTRY...covers the fundamentals of chemistry. Topics include the metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws. COREQUISITE: 78854773 Math Esstls Chemistry and Reading placement assessment or equivalent

INTRODUCTION TO FUNERAL SERVICE...this course begins with an orientation to funeral service and the value of a funeral. A comprehensive survey of history of funeral service is studied, then correlated to influences on contemporary funeral principles and practices. Also studied is the topic of ethics, emphasizing ethical standards and professional conduct essential in the funeral profession, along with personal ethics of a funeral director. PREREQUISITE: Must be admitted to the Funeral Service 105281 program

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

LAWS, RULES AND REGULATIONS...this course examines the legal responsibilities, duties, rights, and liabilities of the funeral director and funeral establishment. Topics include federal, state, and local laws and regulations as they relate to funeral practices, human remains, final disposition, cemeteries, crematories, shipping remains, and public health. Also studied are torts pertaining to funeral service, contracts, wills, probate, and preneed funeral arrangements. PREREQUISITE: Must be admitted to the Funeral Service (10-528-1) prog

MICROBIOLOGY...introduces the learner to examine microbial structure, metabolism, genetics, growth and relationship between humans and microorganisms. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Examines the role of microbes in the environment, industry, and biotechnology. PREREQUISITE: 10806177 General Anatomy and Physiology or equivalent

NATIONAL BOARD EXAM PREP I...this course will provide weekly guided review and extensive testing practice of general funeral service curriculum and National Board Exam content areas covered in the first half of the program, while identifying students' learning styles and reinforcing test-taking strategies. Topics from both funeral service arts and sciences are included in this course.

NATIONAL BOARD EXAM PREP II...this course is a continuation of National Board Exam Prep I, with weekly guided review and extensive testing practice of funeral service technical course curriculum and National Board Exam content areas presented in the second half of the program. Simulation board exam experiences will be provided to mitigate high-stakes test anxiety and to determine overall board readiness. Topics from both funeral service arts and sciences are included in this course.

ORAL/INTERPERSONAL COMMUNICATION...provides students with skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PATHOLOGY OF FUNERAL SERVICE...general disease processes, specific diseases and causative factors are presented. Clinical features are correlated with pathologic changes, and necropsies are discussed. Particular emphasis is placed on diseases that tend to create embalming problems, and situations with medicolegal implications. PREREQUISITE: Must be admitted to the Funeral Service 105281 program

PSYCHOLOGY OF FUNERAL SERVICE...basic principles and theories of psychology and counseling are presented as they relate to funeral service. All aspects of grief, mourning, and bereavement examined, including psychological and sociological influences on grief responses. Study of grief as it relates to children and family structure is included, along with grief characteristics based on cause and manner of death. Effective verbal and nonverbal communication skills are identified and applied to the role of the funeral director as a counselor.

RESTORATIVE ART...students will learn about the principles of Restorative Art as they relate to Funeral Service. The course focuses on the techniques of restoring and recreating an acceptable physical appearance of the deceased through establishment of proper form and color of a given case. Proportional relationships, the anatomical structure of the facial area of the human skull, wax modeling, color theory, lighting, and cosmetic principles are presented along with the guidelines, materials and the steps needed to address minor and major restorations. Students practice restorative art in laboratories provided by the college.

RESTORATIVE ART LAB...lab will allow student to apply knowledge from the Embalming and Restorative Art lecture course. Students will employ color theory and modeling techniques through the use of cosmetics, wax, clay and other types of media to restore the deceased to an acceptable physical appearance. Lab work will take place in the embalming lab space on deceased cases as well as in the restorative art classroom on model heads.

ABOUT THE PROGRAM

The Associate of Arts Degree Transfer Program serves students who intend to transfer to a four-year university. The program provides students with an excellent foundation to continue in higher education, with an emphasis in Humanities & Fine Arts and Social & Behavioral Sciences, focusing electives on furthering those content areas.

By completing the degree through Lakeshore, students can transfer directly with junior status to Lakeland University, University of Wisconsin Oshkosh, University of Wisconsin Milwaukee or University of Wisconsin Green Bay. Students will have enough flexibility for broad major exploration, regardless of a transfer destination.

PROGRAM OUTCOMES

- Develop critical thinking skills to pose questions, process information, and make decisions.
- Recognize the contributions of diverse cultures to the improvement of the human condition in a global society.
- Compute and analyze data using mathematical, statistical, and logical methods to solve problems.
- Use the scientific method within the natural science environment.
- Analyze and apply social science theories.
- Communicate by:
 - Listening actively.
 - Reading and comprehending written materials in the content area.
 - Researching, synthesizing, and organizing information.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/associate-arts-science-degrees/general-studies-transfer-associate-arts>.

APPROXIMATE COSTS

\$188.90 per credit tuition (WI resident) plus \$8.97 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- This program works in partnership with Lakeland University, University of Wisconsin Milwaukee, University of Wisconsin Oshkosh and University of Wisconsin Green Bay. The receiving institution has final determination in the acceptance of credits.
- Students must earn a grade of C or better in each course for degree program completion.
- Credit for Prior Learning awarded for courses may be reviewed by receiving institutions.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

General Education Categories

Communication: 9 credits
Humanities & Fine Arts: 6-15 credits
Diversity/Ethnic Studies: 1 course
Global Studies & Languages: 1 course
Social & Behavioral Sciences: 6-15 credits
Natural Sciences: 6 credits
Quantitative Reasoning: 3 credits

Electives

Electives: up to 21 credits

60 Total Credits Required

**See reverse for course listing and additional requirements.*

**One year of World Language in high school with "C" or better can fulfill Global Studies & Languages requirement.*

**Check with your academic counselor to plan courses specific to your intended college transfer.*

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

GENERAL EDUCATION CATEGORIES

Communication: 9 credits required

10801136	English Composition 1	3 credits
10801223	English Composition 2*	3 credits
10801198	Speech	3 credits

Humanities & Fine Arts/Social & Behavioral Sciences: 21 credits required

Social & Behavioral Sciences - 6 credits minimum

10809122	Introduction to American Government	3 credits
10809196	Introduction to Sociology	3 credits
10809144	Macroeconomics	3 credits
10809143	Microeconomics	3 credits
10809198	Introduction to Psychology	3 credits
10809188	Developmental Psychology	3 credits
10809131	Industrial and Organizational Psychology	3 credits
10809159	Abnormal Psychology*	3 credits
10809254	Educational Psychology*	3 credits
10809132	Social Psychology*	3 credits

Humanities & Fine Arts - 6 credits minimum

10809166	Introduction to Ethics: Theory and Application	3 credits
10801204	Introduction to Literature*	3 credits
10801205	Contemporary American Literature*	3 credits
10809103	Thinking Critically and Creatively	3 credits

Diversity/Ethnic Studies: 1 course required

Credits may count toward Humanities & Fine Arts requirement.

10809172	Introduction to Diversity Studies	3 credits
10809217	Diversity in the Modern World*	3 credits

Global Studies & Languages: 1 course required

May be met with one year in high school with a "C" or better OR one semester in college. Global Studies & Languages college credits may count towards Humanities & Fine Arts or Electives.

10802211	Spanish 1	4 credits
10802212	Spanish 2*	4 credits

Natural Sciences: 6 credits required

One class must include lab.

10806189	Basic Anatomy (no lab)	3 credits
10806112	Principles of Sustainability (no lab)	3 credits
10806114	General Biology (lab)	4 credits
10806134	General Chemistry* (lab)	4 credits
10806177	General Anatomy & Physiology* (lab)	4 credits
10806179	Advanced Anatomy & Physiology* (lab)	4 credits
10806197	Microbiology* (lab)	4 credits
10806186	Introduction to Biochemistry* (lab)	4 credits
10806154	General Physics 1* (lab)	4 credits

Quantitative Reasoning: 3 credits required

10804189	Introductory Statistics	3 credits
10804195	College Algebra with Applications	3 credits
10804198	Calculus 1*	4 credits

*Denotes courses which have a pre-requisite requirement

ELECTIVES

Electives: up to 21 credits

Elective credits can be earned through pathway courses or any additional General education courses beyond the required credits.

Business Pathway

Psychology Pathway

Special Notes:

- Lakeshore holds transfer articulation agreements with UW Green Bay, UW Oshkosh, UW Milwaukee and Lakeland University. Specific course requirements are determined for each agreement.
- Students are encouraged to consult with their academic counselor before registering for courses to ensure they are meeting agreement and graduation requirements.
- Course descriptions and pathway details can be found at lakeshore.edu/programs-and-courses/career-areas/associate-arts-science-degrees/general-studies-transfer-associate-arts.

ABOUT THE PROGRAM

The Associate of Science Degree Transfer Program serves students who intend to transfer to a four-year university. The program provides students with an excellent foundation to continue in higher education, with an emphasis in math and science, focusing electives on furthering those content areas.

By completing the degree through Lakeshore, students can transfer directly with junior status to Lakeland University, University of Wisconsin Oshkosh, University of Wisconsin Milwaukee or University of Wisconsin Green Bay. Students will have enough flexibility for broad major exploration, regardless of a transfer destination.

PROGRAM OUTCOMES

- Develop critical thinking skills to pose questions, process information, and make decisions.
- Recognize the contributions of diverse cultures to the improvement of the human condition in a global society.
- Compute and analyze data using mathematical, statistical, and logical methods to solve problems.
- Use the scientific method within the natural science environment.
- Analyze and apply social science theories.
- Communicate by:
 - Listening actively.
 - Reading and comprehending written materials in the content area.
 - Researching, synthesizing, and organizing information.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/associate-arts-science-degrees/general-studies-transfer-associate-science>.

APPROXIMATE COSTS

\$188.90 per credit tuition (WI resident) plus \$8.97 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- This program works in partnership with Lakeland University, University of Wisconsin Milwaukee, University of Wisconsin Oshkosh and University of Wisconsin Green Bay. The receiving institution has final determination in the acceptance of credits.
- This program involves in-person components; it is not available fully online.
- Students must earn a grade of C or better in each course for degree program completion.
- Credit for Prior Learning awarded for courses may be reviewed by receiving institutions.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

General Education Categories

Communication: 9 credits
Humanities & Fine Arts: 6 credits
Diversity/Ethnic Studies: 1 course
Global Studies & Languages: 1 course
Social & Behavioral Sciences: 6 credits
Quantitative Reasoning & Natural Sciences: 18 credits

Electives

Electives: up to 21 credits

60 Total Credits Required

**See reverse for course listing and additional requirements.*

**One year of World Language in high school with "C" or better can fulfill Global Studies & Languages requirement.*

**Check with your academic counselor to plan courses specific to your intended college transfer.*

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

GENERAL EDUCATION CATEGORIES

Communication: 9 credits required

10801136	English Composition 1	3 credits
10801223	English Composition 2*	3 credits
10801198	Speech	3 credits

Humanities & Fine Arts: 6 credits required

10809166	Introduction to Ethics: Theory and Application	3 credits
10801204	Introduction to Literature*	3 credits
10801205	Contemporary American Literature*	3 credits
10809103	Thinking Critically and Creatively	3 credits

Diversity/Ethnic Studies: 1 course required

Credits may count toward Humanities & Fine Arts requirement.

10809172	Introduction to Diversity Studies	3 credits
10809217	Diversity in the Modern World*	3 credits

Global Studies & Languages: 1 course required

May be met with one year in high school with a "C" or better OR one semester in college. Global Studies & Languages college credits may count towards Humanities & Fine Arts or Electives.

10802211	Spanish 1	4 credits
10802212	Spanish 2*	4 credits

Social & Behavioral Sciences: 6 credits required

10809122	Introduction to American Government	3 credits
10809196	Introduction to Sociology	3 credits
10809144	Macroeconomics	3 credits
10809143	Microeconomics	3 credits
10809198	Introduction to Psychology	3 credits
10809188	Developmental Psychology	3 credits
10809131	Industrial and Organizational Psychology	3 credits
10809159	Abnormal Psychology*	3 credits
10809254	Educational Psychology*	3 credits
10809132	Social Psychology*	3 credits

Quantitative Reasoning & Natural Sciences: 18 credits required

Quantitative Reasoning - 3 credits minimum

10804189	Introductory Statistics	3 credits
10804195	College Algebra with Applications	3 credits
10804198	Calculus 1*	4 credits

Natural Sciences - 6 credits minimum

Must select 1 Biological Science course with lab and 1 Physical Science course with lab.

Biological Science

10806189	Basic Anatomy (no lab)	3 credits
10806114	General Biology (lab)	4 credits
10806177	General Anatomy & Physiology* (lab)	4 credits
10806179	Advanced Anatomy & Physiology* (lab)	4 credits
10806197	Microbiology* (lab)	4 credits
10806186	Introduction to Biochemistry* (lab)	4 credits

Physical Science

10806112	Principles of Sustainability (no lab)	3 credits
10806134	General Chemistry* (lab)	4 credits
10806154	General Physics 1* (lab)	4 credits

*Denotes courses which have a pre-requisite requirement.

ELECTIVES

Electives: up to 21 credits

Elective credits can be earned through pathway courses or any additional General education courses beyond the required credits.

Biology Pathway

Business Pathway

Psychology Pathway

Special Notes:

- Lakeshore holds transfer articulation agreements with UW Green Bay, UW Oshkosh, UW Milwaukee and Lakeland University. Specific course requirements are determined for each agreement.
- Students are encouraged to consult with their academic counselor before registering for courses to ensure they are meeting agreement and graduation requirements.
- Course descriptions and pathway details can be found at lakeshore.edu/programs-and-courses/career-areas/associate-arts-science-degrees/general-studies-transfer-associate-science.

Program Number 10-201-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Have you been told you have creative and visualization skills? Do you enjoy analyzing design decisions and often think it could have been done better? If you are attracted to the design elements of color, type, shape, illustration, and layout, then creating web sites and print-ready design solutions can be a very satisfying career choice. Graphic and web designers often thrive on competition and creative license; however, they must constantly adapt to the best solutions for the client. This field can draw out your creative talents and expand your business and marketing expertise. A minimum keyboarding skill of 25 wpm is recommended.

PROGRAM OUTCOMES

- Apply the principles of design to develop strategic marketing and communication products and services.
- Demonstrate proficiency in the use of design software, tools, and technology.
- Implement creative solutions from concept through completion using a formal process.
- Apply effective legal and ethical business practices and project management skills.
- Communicate artwork rationale in formal and informal settings.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/marketing-sales-service/graphic-and-web-design>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTES

- Adobe Creative Cloud software is required for this program. Student discount prices are available.
- Students will be required to purchase online subscriptions over the course of the program. The approximate cost is \$100.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
 920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10201101	Design Fundamentals	3
10201108	Photoshop*	3
10201109	Illustration*	3
10801136	English Composition 1	3
10104102	Principles of Marketing*	3
		15
Term 2		
10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10152196	Web Development 1*	3
10201110	InDesign*	3
10201114	Typography*	2
10201202	Digital Photography*	3
10809198	Introduction to Psychology	3
		16
Term 3		
10152122	Multimedia Concepts*	3
10201117	Career Essentials*	2
10201118	Advancements in Web and Development*	2
10201173	Website Development Advanced*	3
10801196	Oral/Interpersonal Communication	3
10809196	Introduction to Sociology OR 10809172 Introduction to Diversity Studies	3
		16
Term 4		
10104125	Social Media Strategy*	3
10201103	Advanced Computer Graphics*	3
10201105	Internship for Graphic and Web Design*	1
10201113	Print Design and Publication*	3
10804189	Introductory Statistics	3
		13
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED COMPUTER GRAPHICS...provides the learner with enhanced knowledge and skill in the use of design, illustration, and page layout software through the creation of a variety of design projects. Emphasis is on original, strong images and type integration, as well as preparing files for press. Students must participate in the spring portfolio show. **PREREQUISITES:** 10201173 Website Development Adv, 10201101 Design Fundamentals, and 10201110 InDesign and **COREQUISITE:** 10201113 Print Design and Publication and **CONDITION:** 102012 Graphic and Web Design admission requirements met

ADVANCEMENTS IN WEB AND DEVELOPMENT...will explore the latest trends in Web design and development. Students will apply advanced techniques to create progressive and contemporary websites. **PREREQUISITE:** 10152196 Web Development 1

CAREER ESSENTIALS...will teach learners how to create effective career documents for a job search in the graphic and web design field including resume, cover letter, personal brand assets, and digital portfolio. Learners will be introduced to interview skills, career path options, and goal setting for a job search. Learners will also examine freelance resources and business entrepreneurship. **COREQUISITE:** 10201173 Web Development Advanced

DESIGN FUNDAMENTALS...introduces the learner to the Elements of Art for graphic design. Learners will investigate how these can be utilized in the Principles of Design to achieve an array of effects for print and web media. Basic color theory, historic design eras, emerging design media, and various occupations in graphic and web design will be covered.

DIGITAL PHOTOGRAPHY...will teach learners to use photographic principles and digital image manipulation. Learners will examine digital image editing techniques from a photography standpoint and create projects that focus on digital imagery. Image manipulation using current industry standard software, file management, and AI generative techniques for images will also be covered. **PREREQUISITE:** 10201108 Photoshop

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

ILLUSTRATION...prepares the learner to use current industry standard vector graphics software to create illustrations and designs. The course will cover illustrative design styles and the basics of digital illustration for print and web media. Learners will work with current industry standard tools to create original vector designs and examine AI generative illustration techniques.

INDESIGN...prepares the learner to use current industry standard page layout software. Learners will develop an array of print media by implementing industry standard tools and managing documents for print production. The latest AI generative techniques will be explored focusing on print media. **PREREQUISITE:** 10201101 Design Fundamentals

INTERNSHIP FOR GRAPHIC AND WEB DESIGN...requires students to complete 72 hrs of performing work in a business/industrial service setting related to their program objectives. Students are responsible for seeking and obtaining the internship workstation position. Course requirements include maintaining a log of work activities, identifying and receiving approval from the job supervisor and instructor, and completing a work-related project. Field study may be substituted based on instructor decision. Students meet periodically at Lakeshore. **COREQUISITE:** 10201113 Publication Design and **CONDITION:** Verification of eligibility by the Internship Coordinator

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

MULTIMEDIA CONCEPTS...prepares the learner to use current industry standard software and techniques in creating various multimedia including video, audio, and assets for web and print media. Learners will create a diverse array of multimedia design projects and employ project management skills for design development.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PHOTOSHOP...prepares the learner to use current industry standard image manipulation software to edit, enhance, and create digital images which are prepared for print and web media. Topics will include an array of photo correction and enhancement methods, photo editing with current industry standard tools, and creating images with AI generative techniques.

PRINCIPLES OF MARKETING...introduces the student to the consumer decision process model, the bases used to segment a market, basic concepts about goods, services, and ideas, the nature of supply chain and distribution, integrated marketing communications, and the stages of the product life cycle and their impact on the marketing mix.

PRINT DESIGN AND PUBLICATION...introduces the learner to creating and designing print materials for commercial press output. A variety of print media projects focused on advertising, branding, packaging, and product development will be created. **PREREQUISITE:** 10201110 InDesign, 10201108 Photoshop, and 10201109 Illustration

SOCIAL MEDIA STRATEGY...explores current and up-and-coming online platforms, applications, and tracking methods for social media and determine how they are revolutionizing the marketing landscape. You will set up social media accounts, learn basic terminology, and incorporate best practices into marketing strategies. You will learn which platforms fit best with an organization's strategic goals, how to integrate content across them, interpret the analytics, and tailor them to maximize results.

TYPOGRAPHY...introduces the learner to the fundamentals of Typography. Emphasis is on the structure and form of type and how it is used in contemporary graphic design. Projects explore the history of type, and the creation of design using type elements. **PREREQUISITE:** 10201109 Illustration and **CONDITION:** 102012 Graphic and Web Design admission requirements met

WEB DEVELOPMENT 1...introduces the students to web page design principles and proceeds to teach students how to create their own visually appealing designs for the web. Students will have hands-on experience using current versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) to code and format accessible, valid, and optimized websites. Websites will be published live on the web using FTP. Students also explore recent trends in web design and development.

WEBSITE DEVELOPMENT ADVANCED...will teach learners advanced web design and development techniques using current industry standard software. Learners will examine UI/UX applications, CMS platforms, and website building. Learners will explore core web design principles with accessibility and responsiveness considerations from a design perspective. **COREQUISITE:** 10152196 Web Development 1

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

Program Number 10-530-4
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Health Information professionals (HIM) are highly trained in the latest information management technology applications. They have an understanding of healthcare workflow processes, from large hospital systems to small physician practices, and are vital to the daily operation management of health information and electronic health records (EHR). They ensure a patient's health information is complete, accurate, and protected. The Bureau of Labor Statistics cites HIM as one of the fastest growing occupations in the US.

PROGRAM OUTCOMES

- Manage health data.
- Apply coding and reimbursement systems.
- Model professional behaviors and ethics.
- Maintain electronic applications to manage health information.
- Apply organizational management techniques.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/health-information-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Lakeshore's Health Information Management Associate degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
 920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31501309	Medical Terminology Part 1	1
31501310	Medical Terminology Part 2	1
31501311	Medical Terminology Part 3	1
10103191	Word - Level 1	1
31501307	Digital Literacy for Healthcare	2
10530182	Human Diseases for Health Professions	3
10806189	Basic Anatomy	3
10530141	Introduction to the Healthcare System	1
10530142	Introduction to the Medical Record	1
10530143	Medical Record Processes	1
		15
Term 2		
10801136	English Composition 1	3
10530169	Intro to Health Informatics Part 1	1
10530170	Intro to Health Informatics Part 2	1
10530168	Intro to Health Informatics Part 3	1
10809172	Introduction to Diversity Studies	3
10103121	Excel - Level 1	1
10530174	Healthcare Law and Ethics Part 1	1
10530175	Healthcare Law and Ethics Part 2	1
10530133	ICD Diagnosis Coding Part 1	1
10530134	ICD Diagnosis Coding Part 2	1
10530135	ICD Diagnosis Coding Part 3	1
10103101	Access - Level 1	1
		16
Term 3		
10530136	Introduction to PCS Coding	1
10530137	Application of PCS Coding	1
10530130	CPT Coding Part 1	1
10530131	CPT Coding Part 2	1
10530132	CPT Coding Part 3	1
10530138	Healthcare Revenue Mgmt: Payment Methodologies	1
10530139	Healthcare Revenue Mgmt: Revenue Compliance	1
10530140	Healthcare Revenue Mgmt: Revenue Cycle	1
10801196	Oral/Interpersonal Communication	3
10809196	Introduction to Sociology	3
10530147	HIM/Coding Practicum Part 1	1
10530148	HIM/Coding Practicum Part 2	1
		16
Term 4		
10809198	Introduction to Psychology	3
10530150	Healthcare Quality Management Part 1	1
10530151	Healthcare Quality Management Part 2	1
10530152	Healthcare Stats and Research Part 1	1
10530153	Healthcare Stats and Research Part 2	1
10530172	HIM Organizational Resources Part 1	1
10530173	HIM Organizational Resources Part 2	1
10530188	Intermediate Coding Part 1	1
10530189	Intermediate Coding Part 2	1
10530190	Intermediate Coding Part 3	1
10530192	HIM Practicum 2	2
		14
		TOTAL 61

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCESS-LEVEL 1...introduces students to the process of creating a database, building and populating a table, establishing table relationships, and creating queries, forms, and reports.

APPLICATION OF PCS CODING...prepares learner to assign ICD-PCS procedure codes as they apply to all body systems and miscellaneous procedures. COREQ: 10530136 Intro to PCS Coding

BASIC ANATOMY...examines concepts of anatomy & physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems. Discuss reading academic course support with your Counselor.

CPT CODING PART 1...prepares the learner to apply the rules of CPT Medical Coding as they relate to the format and conventions, evaluation and management, medicine, and ancillary services (lab/x-ray) and HCSPS. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

CPT CODING PART 2...prepares learner to apply the rules of CPT Medical Coding as they relate to digestive, urinary, reproductive, neurologic, and sensory systems. COREQ: 10530130 CPT Coding Pt 1

CPT CODING PART 3...prepares learner to apply the rules of CPT Medical Coding as they relate to the integumentary, musculoskeletal, circulator, respiratory systems, and anesthesia. COREQ: 10530131 CPT Cod Pt 2

DIGITAL LITERACY FOR HEALTHCARE...focuses on 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.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL-LEVEL 1...introduces spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas, functions; working with charts; and developing multiple-sheet workbooks.

HC REV MANAGEMENT: PAYMENT METHODOLOGIES...prepares the learner to compare government and non-government payers and payment methodologies.

HC REV MANAGEMENT: REVENUE COMPLIANCE...prepares the learner to apply various payment methodologies while ensuring compliance with regulations and future trends. COREQUISITE: 10530138 HC Revenue Mgmt Payment Methodologies

HC REV MANAGEMENT: REVENUE CYCLE...prepares the learner to conduct activities of and manage the revenue cycle. COREQUISITE: 10530139 HC Revenue Mgmt Revenue Compliance

HEALTHCARE LAW AND ETHICS PART 1...prepares the learner to apply regulations for the content, use, confidentiality, disclosure and retention of health information. PREREQUISITE: 10530162 Foundations of HIM or 10530143 Medical Record Processes

HEALTHCARE LAW AND ETHICS PART 2...prepares the learner to examine the legal system and assess ethical standards in healthcare. COREQUISITE: 10530175 Healthcare Law & Ethics Part 1

HEALTHCARE QUALITY MANAGEMENT PART 1...prepares the learner to explore the programs and processes used to manage and improve healthcare quality. PREREQUISITE: 10530162 Foundations of HIM or 10530143 Medical Record Processes

HEALTHCARE QUALITY MANAGEMENT PART 2...prepares learner to address regulatory requirements related to performance measurement, assessment, and improvement, required monitoring activities, risk management and patient safety, utilization management and medical staff credentialing. Utilize data analysis in management and reporting of data. COREQ: 10530150 Healthcare Qual Mng Pt 1

HEALTHCARE STATS AND RESEARCH PART 1...prepares learner to examine and calculate inpatient and outpatient utilization statistics and the ways in which they are applied. PREREQUISITES: 10530162 Foundations of HIM, 10530143 Medical Record Processes, and 10103121 Excel - Level 1

HEALTHCARE STATS AND RESEARCH PART 2...prepares the learner to examine and calculate inpatient and outpatient morbidity and mortality statistics, epidemiological statistics, construct graphical displays of data, evaluate data analytics to identify patterns and trends in healthcare and examine research methodologies. COREQUISITE: 10530152 Healthcare Stats & Research Part 1

HIM ORGANIZATIONAL RESOURCES PART 1...prepares the learner to investigate leadership and management theories, analyze departmental and organizational policies and procedures to assure compliance with regulations and standards, manage financial resources, and comply with local, state and federal labor regulations. PREREQS: 10530162 Fdnns of HIM or 10530143 Med Record Proc

HIM ORGANIZATIONAL RESOURCES PART 2...prepares the learner to conduct strategic and operational planning functions, department organizing and scheduling activities, human resource management activities and create programs that support a culture of diversity. COREQUISITE: 10530172 HIM Organizational Resources Part 1

HIM PRACTICUM 2...applies previously acquired skills and knowledge and discussion of clinical situations. Prepares for the certification examination and pre-graduation activities. This is the second of a two-semester sequence of supervised technical and managerial/clinical experiences in health care facilities. COREQ: 10530191 HIM/Coding Practicum 1 or 10530148 HIM/Coding Practicum Pt 2 and 10530151 Healthcare Quality Management Pt 2 and 10530153 Healthcare Stats & Research Pt 2 and 10530173 HIM Org Research Pt 2 and 10530175 Healthcare Law & Ethics Pt 2 and CONDITION: 105304 Health Information Management program reqs met

HIM/CODING PRACTICUM PART 1...prepares the learner to evaluate the Patient Registration, Medical Coding, and Medical Claims process in a clinical setting. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

HIM/CODING PRACTICUM PART 2...prepares learner to complete a Resume Preparation, Interview Process and Portfolio Project. COREQS: 10530131 CPT Coding Pt 2, 10530132 CPT Coding Pt 3, 10530134 ICD Diagnosis Coding Pt 2, 10530135 ICD Diagnosis Coding Pt 3, 10530137 Application of PCS Coding

HUMAN DISEASES FOR HEALTH PROFESSIONALS...prepares learners to interpret clinical documentation that they will encounter in a variety of healthcare settings. Emphasis is placed on understanding the common disorders and diseases of each body system to include the etiology (cause), signs and symptoms, diagnostic tests and results, and medical treatments and surgical procedures. COREQUISITES: 10501101 Med Term or 10501117 Med Term Pt 3 or 31501311 Med Term Pt 3

ICD DIAGNOSIS CODING PART 1...prepares learner to examine the rules of ICD classification systems and assign ICD diagnosis codes to infectious, endocrine, metabolic, digestive, respiratory systems, injuries, poisonings, and signs/symptoms. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

ICD DIAGNOSIS CODING PART 2...prepares the learner to assign ICD diagnosis codes as they relate to neoplasms, nervous, eye, ear, genitourinary, pregnancy, perinatal, and congenital disorders. COREQUISITE: 10530133 ICD Diagnosis Coding Part 1

ICD DIAGNOSIS CODING PART 3...prepares the learner to assign ICD diagnosis codes as they relate to blood, circulatory, behavioral/mental health, skin, musculoskeletal diseases, and miscellaneous factors influencing health care. COREQUISITE: 10530133 ICD Diagnosis Coding Part 1

INTERMEDIATE CODING PART 1...prepares learner to utilize automated coding systems to complete entry level coding scenarios. COREQUISITES: 10530131 CPT Coding Pt 2, 10530132 CPT Coding Pt 3, 10530134 ICD Diagnosis Coding Pt 2, 10530135 ICD Diagnosis Coding Pt 3, 10530137 Application of PCS Coding

INTERMEDIATE CODING PART 2...prepares the learner to utilize automated coding systems to complete intermediate coding scenarios. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

INTERMEDIATE CODING PART 3...prepares the learner to utilize automated coding systems to complete advanced coding scenarios. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

INTRO TO HEALTH INFORMATICS PART 1...prepares learner to examine and calculate data analytics and health informatics and how information systems apply and create a plan for selection and implementation of an information system. PREREQS: 10530162 Fndtns of HIM or 10530143 Med Rcd Processes and 10501107 Digital Literacy for Healthcare or 31501307 Digital Literacy for Healthcare

INTRO TO HEALTH INFORMATICS PART 2...prepares the learner to differentiate between the various software products used in a healthcare organization. COREQUISITE: 10530169 Intro to Health Informatics Part 1

INTRO TO HEALTH INFORMATICS PART 3...prepares the learner to summarize standards for the exchange of health information, explain consumer informatics, and the privacy and security measure that must be taken to protect access to all patient health records. COREQUISITE: 10530170 Intro to Health Informatics Part 2

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PCS CODING...prepares the learner to examine the rules of the ICD-PCS procedure coding classification system and assign codes that describe the root operation of the PCS classification system. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

INTRODUCTION TO THE HC SYSTEM...prepares the learner to evaluate various influences on the healthcare system such as external forces, types of organizations, and roles and responsibilities of healthcare providers. COREQUISITE: 10501107 or 31501307 Digital Literacy for Healthcare

INTRODUCTION TO THE MEDICAL RECORD...prepares the learner to demonstrate professional ethical standards while examining data collection tools and information governance. COREQUISITE: 10530141 Intro to the Healthcare System

MEDICAL RECORDS PROCESSES...prepares learner to perform medical record processes and examine data sources while maintaining quality standards. COREQUISITE: 10530142 Introduction to the Medical Record

MEDICAL TERMINOLOGY PART 1...focuses on component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of integumentary, respiratory, and urinary systems, as well as systemic and surgical terminology.

MEDICAL TERMINOLOGY PART 2...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of reproductive systems, cardiovascular system, and the lymphatic and immune systems as well as systemic and surgical terminology. COREQ: 31501309 Med Term Pt 1

MEDICAL TERMINOLOGY PART 3...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of digestive, skeletal, muscular, sensory, nervous, and endocrine as well as systemic and surgical terminology. COREQUISITE: 31501310 Medical Terminology Part 2

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

ABOUT THE PROGRAM

The High School Equivalency Diploma (HSED) 5.09 is competency based and serves the adult learner 18 1/2 years or older. This program is designed to award a high school equivalency diploma through the 5.09 option to those individuals who master the required competencies. The competencies are covered through a series of courses and are assessed through a variety of means. This is an alternative to traditional GED testing.

ADMISSION TO DO'S

- Attend an orientation session.
- To register call 920.693.1000.
- Complete an assessment of skill level using the Test for Adult Basic Education (TABE) during the orientation.
- Students are strongly encouraged to provide an official high school transcript.

APPROXIMATE COSTS

- State Administrative Fee \$15.00
- Wisconsin State Civics Exam \$10.00

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Obtaining one's HSED can allow workers to obtain or retain employment. With this credential, students can also transition into college-level work and begin a college career.

SPECIAL NOTE

Courses are available in a morning or evening schedule that allows a student to complete in as few as 12 months. To complete the HSED 5.09 program, students are required to pass the Wisconsin State Civics Exam.

Catalog No.	Class Title
76851782	5.09 Communication Skills 2
76854770	Pre-College Math 5.09
76854775	Pre-Algebra 5.09
76856780	Science 5.09
76857780	Health 5.09
76858788	5.09 Communication Skills 1
76859780	Social Studies 5.09
76859781	Civics 5.09
76862711C1	Career Awareness
76862712E1	Employability Skills

5.09 COMMUNICATION SKILLS 1...emphasizes development of Communication skills. Learners will create an oral presentation and written documents by applying listening skills, developing interpersonal skills, communicating ideas orally, and participating in group projects. Learners will comprehend and react critically to a range of written materials and apply the mechanics of writing.

5.09 COMMUNICATION SKILLS 2...emphasizes continued development of communication skills. Learners will communicate effectively using current technology, using a variety of informational resources, developing vocabulary strategies, and processing written material effectively. Learners will produce original written materials using a variety of strategies.

CAREER AWARENESS...provides the participant with the skills to develop a career plan of action; review current occupational trends; identify career and financial resources; assess their values, interest, and abilities as they relate to career decision making; identify interest areas in relation to career cluster; match personal characteristics with occupations; and establish short-term and long-term career goals.

CIVICS 5.09...emphasizes the concepts of government and citizenship. Learners will understand the functions of state, county, and local governments, principles of U.S. constitutional government, the role of the consumer and the government, political parties and interest groups, and the rights and responsibilities of U.S. citizenship.

EMPLOYABILITY SKILLS...enhances the participant's ability to successfully seek and obtain employment by analyzing the changing job market; formulating a career objective matching their values, interests and skills; evaluating methods for finding employment; creating a resume to match their job objective; composing a letter of application; completing a job application; and preparing for a job interview.

HEALTH 5.09...emphasizes concepts of health and wellness as well as human growth and development.

PRE-ALGEBRA 5.09...emphasizes radical numbers, basic geometry and measurement, basic statistics and probability, graphs, simple scientific notation, and solving simple algebraic equations. Learners will use basic measurement tools and use calculators in problem solving. Learners will apply math concepts in real-world context including financial literacy, consumer applications, and Manufacturing trades applications.

PRE-COLLEGE MATH 5.09...emphasizes the four basic operations using whole numbers, fractions, decimals, percents, and integers in calculations and situational problems. Learners will solve problems using ratios and proportions, exponents, and the order of operations. Learners will apply math concepts in real-world context including financial literacy, consumer applications, and manufacturing trades applications.

SCIENCE 5.09...emphasizes and explores the basic scientific processes using multiple content applications from the life and physical sciences, including physics, chemistry, and environmental science. Learners will integrate science skills based on their personal interests and career goals.

SOCIAL STUDIES 5.09...emphasizes building knowledge in the areas of United States History, World History, Economics, and Geographic regions of the world.

Program Number 10-116-1
Associate Degree in Applied Science • Varies

ABOUT THE PROGRAM

If you enjoy structuring and administering programs and policies designed to help employees be productive and safe in the workplace, then human resource administration is a good career for you. Knowing the laws, regulations, and internal policies of an organization and administering them humanely and fairly is the human resource administrator's responsibility. This growing and dynamic field has excellent future career growth potential.

PROGRAM OUTCOMES

- Create an organizational workforce plan.
- Develop training programs.
- Incorporate employment law into business practices.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/human-resource-administration>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- This program is offered in an online delivery format. Contact your academic counselor for details.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe. This program offers flexible start dates throughout the year.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10103161	PowerPoint - Level 1*	1
10196193	Human Resource Management*	3
10449114	Safety in the Workplace*	3
10116105	Recruitment & Retention of Employees*	3
10801136	English Composition 1	3
		15

Term 2

10196189	Teambuilding and Problem Solving*	3
10101106	Payroll Applications*	2
10116103	Training for Organizations*	3
10116125	Human Resources Employment Law*	3
10116127	HR Technology*	2
10809198	Introduction to Psychology	3
		16

Term 3

10116102	Compensation and Benefits Administration*	3
10116107	Labor Relations and Negotiations*	2
10116109	Career Planning & Networking*	1
10801196	Oral/Interpersonal Communication	3
10804189	Introductory Statistics	3
10809144	Macroeconomics	3
		15

Term 4

10116222	Organizational Development*	3
10101155	Accounting for Professionals	3
10116106	Internship-Human Resources* OR	3
	10116128 HR Studies (3 cr) OR	
	10138101 Intro-Global Business* (3 cr)	
10116221	Strategic Performance Management*	2
10809172	Introduction to Diversity Studies	3
		14

TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING FOR PROFESSIONALS...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

COMPENSATION AND BENEFITS ADMINISTRATION...applies the skills and tools necessary to design, implement and manage a compensation and benefits program as a tool for recruitment, retention and performance management of employees.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HR TECHNOLOGY...introduces the learner to the ever-increasing use of technology in the human resource function and prepares the learner for a human resource administrative role by providing the application of human resource problem solving using a HRIS (Human Resource Information System) to complete case studies.

HUMAN RESOURCE MANAGEMENT...applies the skills/tools necessary to effectively value and apply employees' abilities and needs to organization goals. Learners will demonstrate the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies/procedures, training, performance management, employee counseling/development, and effective use of compensation and benefit strategies.

HUMAN RESOURCES EMPLOYMENT LAW...prepares the learner to examine the systems of government in the United States as it pertains to human resource laws. Learners will learn the laws that govern the human resource field and will survey the current legal environment in the United States. This course will assist the learner in demonstrating the legal application of the human resource role as it impacts the employee selection process; analyzing discrimination issues and harassment claims; and understanding workplace privacy issues.

INTERNSHIP-HUMAN RESOURCES...requires students to complete 72 to 216 hours (1 to 3 credits) of performing work in a business/industrial service setting related to their Human Resource program objectives. Students are responsible for seeking and obtaining the internship workstation position. Course requirements include maintaining a log of work activities, identifying and receiving approval from the job supervisor and instructor, and completing a work-related project. Students meet periodically at Lakeshore. CONDITION: Verification of eligibility by instructor (contact HR instructor).

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

LABOR RELATIONS AND NEGOTIATIONS...introduces the participant to the history of the labor movement and the uniqueness of the Human Resources department in a union workplace by applying the learned skills with case studies. This course also applies the learnings about labor relations to help students understand the legal collective bargaining processes, labor negotiations, and grievance arbitration.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

ORGANIZATIONAL DEVELOPMENT...teaches how organizational development ties with employee development and retention by introducing strategies to provide employees the opportunity to learn and grow in their careers. This course studies ethical behavior and is designed to help students develop their ability to express their ethical positions. Students will walk through the role of a human resources business partner in a changing organization and will learn models, process, the research, and application of change management.

PAYROLL APPLICATIONS...introduces students to federal and state payroll laws; calculations for gross and net income; prepare payroll deductions; and maintain payroll records.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

RECRUITMENT & RETENTION OF EMPLOYEES...applies the skills and tools necessary to recruit, select, hire and retain qualified employees. Legal issues, testing, screening, interviewing, selecting and negotiating techniques will be covered, along with understanding the makeup of today's workforce, predicting and preventing turnover, and creating a loyal and committed workforce.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

STRATEGIC PERFORMANCE MANAGEMENT...teaches understanding that the basic intent of employee discipline should be correction and retention. This course aims to teach the steps involved in a progressive disciplinary process and provide the techniques to enhance an employee's performance and overall development.

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

TRAINING FOR ORGANIZATIONS...applies the skills and tools necessary to implement the training cycle of assessment, design, develop, implement and evaluate. Each learner will develop and present a complete training project based upon adult learning theory and instructional design techniques.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

Program Number 31-116-1 Technical Diploma • Two Terms

ABOUT THE PROGRAM

This technical diploma, Human Resources Assistant, provides you with a range of entry level and intermediate skills that are needed to perform basic human resources job functions. The credential 'ladders' up to the full two-year Associate Degree, Human Resource Administration. If you enjoy assisting in structuring and administering programs and policies designed to help employees be productive and safe in the workplace, then human resources assistant is a good career for you. The technical degree holder will assist in recruitment, apply basic workplace safety and legal principles to a variety of employment situations, conduct basic payroll functions, assist in and facilitate employee training and development programs, and serve as a customer service representative for a human resources department. This growing and dynamic field has excellent future career growth potential.

PROGRAM OUTCOMES

- Create an organizational workforce plan.
- Develop training programs.
- Incorporate employment law into business practices.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/human-resources-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- This program is offered in an online delivery format. Contact your academic counselor for details.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe. This program offers flexible start dates throughout the year.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10103161	PowerPoint - Level 1*	1
10196193	Human Resource Management*	3
10449114	Safety in the Workplace*	3
10116105	Recruitment & Retention of Employees*	3
10801136	English Composition 1	3
		15
Term 2		
10196189	Teambuilding and Problem Solving*	3
10101106	Payroll Applications*	2
10116103	Training for Organizations*	3
10116125	Human Resources Employment Law*	3
10116127	HR Technology*	2
10809198	Introduction to Psychology	3
		16
		TOTAL 31

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HR TECHNOLOGY...introduces the learner to the ever-increasing use of technology in the human resource function and prepares the learner for a human resource administrative role by providing the application of human resource problem solving using a HRIS (Human Resource Information System) to complete case studies.

HUMAN RESOURCE MANAGEMENT...applies the skills/tools necessary to effectively value and apply employees' abilities and needs to organization goals. Learners will demonstrate the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies/procedures, training, performance management, employee counseling/development, and effective use of compensation and benefit strategies.

HUMAN RESOURCES EMPLOYMENT LAW...prepares the learner to examine the systems of government in the United States as it pertains to human resource laws. Learners will learn the laws that govern the human resource field and will survey the current legal environment in the United States. This course will assist the learner in demonstrating the legal application of the human resource role as it impacts the employee selection process; analyzing discrimination issues and harassment claims; and understanding workplace privacy issues.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

PAYROLL APPLICATIONS...introduces students to federal and state payroll laws; calculations for gross and net income; prepare payroll deductions; and maintain payroll records.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

RECRUITMENT & RETENTION OF EMPLOYEES...applies the skills and tools necessary to recruit, select, hire and retain qualified employees. Legal issues, testing, screening, interviewing, selecting and negotiating techniques will be covered, along with understanding the makeup of today's workforce, predicting and preventing turnover, and creating a loyal and committed workforce.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

TRAINING FOR ORGANIZATIONS...applies the skills and tools necessary to implement the training cycle of assessment, design, develop, implement and evaluate. Each learner will develop and present a complete training project based upon adult learning theory and instructional design techniques.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

ABOUT THE PROGRAM

The HVAC Installation Technician Diploma is a great first step for an entry-level position in the Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) fields. This training prepares individuals to install residential and light commercial HVACR systems used for the environmental control of buildings and product processes. It also provides instruction in construction trades fundamentals.

PROGRAM OUTCOMES

- Install HVAC components.
- Troubleshoot HVACR systems.
- Service HVAC systems.
- Evaluate HVACR system designs.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/architecture-construction/hvac>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10601201	HVAC Foundations*	1
10601202	HVAC Duct Systems*	1
10601218	HVAC Piping Applications*	2
31420325	Manufacturing Math*	1
10442100	Safety and Welding Fundamentals*	1
10449114	Safety in the Workplace*	3
10601204	HVAC Electrical - Theory*	1
10601219	HVAC Electrical - Applications*	2
10601206	HVAC Heating Systems and Sizing*	1
10601216	HVAC Residential Furnace Installation*	2
10601208	HVAC Residential Furnace Startup*	1
		16
Term 2		
10601210	HVAC Air Conditioning - Theory*	1
10601220	HVAC Air Conditioning - Installation*	2
10601212	HVAC Air Conditioning - Startup*	1
10601221	HVAC Airflow - Principles*	3
10601213	HVAC Hydronic Heating Systems - Theory*	1
10601217	HVAC Hydronic Heating Systems - Installation*	2
10601215	HVAC Mini Split Systems*	1
10601222	HVACR Light Commercial Rooftop Units*	2
10601223	HVACR Refrigeration Applications*	3
		16
		TOTAL 32

* CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

HVAC AIR CONDITIONING - INSTALLATION...allows the learner to apply their knowledge and air conditioning theory in a laboratory setting on actual air conditioning systems. Students will gain hands-on experience identifying and operating various air conditioning and various related appliance systems. COREQUISITE: 10601210 HVAC Air Conditioning – Theory

HVAC AIR CONDITIONING - STARTUP...permits the learner to commission a residential air conditioning system and apply their previous knowledge and skill to troubleshoot common cooling system faults as well as replace frequently damaged components. COREQUISITE: 10601220 HVAC Air Conditioning – Installation

HVAC AIR CONDITIONING - THEORY...explains the fundamental operating concepts of the refrigeration cycle. Common systems, components, and refrigerants will be discussed and the association between temperature and pressure of cooling systems will be explored.

HVAC AIRFLOW - PRINCIPLES...instructs the learner in evaluating and testing natural gas and propane heating appliances. Major components and controls are identified, and the proper methods of troubleshooting and diagnosing are learned and practiced. Evaluating proper airflow patterns, combustion safety, and system performance for systems are emphasized. The main objective is to assist the technician to work on a variety of gas-fired appliances when the course is completed.

HVAC DUCT SYSTEMS...introduces the learner to sheet metal layout and duct fabrication. Students will gain experience in the sheet metal fabrication lab and hone their skills in sheet metal HVAC fabrication. Alternative ducting materials such as fiberglass and fabric ducting will also be discussed.

HVAC ELECTRICAL - APPLICATIONS...allows learners to apply the concepts learned in their Electrical Theory class. Learners will use multimeters to gain basic parameters and troubleshoot various HVAC electrical components. COREQUISITE: 10601204 HVAC Electrical – Theory

HVAC ELECTRICAL - THEORY...presents to the learner the basic electrical theory of Alternating and Direct Current. Students will study transformers, motors, and other HVAC specific electrical components.

HVAC FOUNDATIONS...provides students with the foundations of HVAC. Students will learn about the HVAC industry, the fundamentals of HVAC installation and service techniques, basic tools and, as well as trade mathematics. Professional licensure, certification, and various HVAC career paths will also be discussed.

HVAC HEATING SYSTEMS AND SIZING...focuses on the types of heating systems, forms of heat transfer and how they relate to the various HVAC heating systems in compliance with manual J. The basic operations of gas, oil, electric, and hydronic heating systems will be presented.

HVAC HYDRONIC HEATING SYSTEMS - THEORY...introduces the learner to hydronic heating systems, where fluid (usually water) is used to transfer heat. The various heating sources (gas oil, or electricity) for heating the water boiler will be presented and discussed.

HVAC HYDRONIC HEATING SYSTEMS-INSTALLATION...continues the student's hydronic heating education to include practical application with in-floor heating systems, radiators, boilers, and other common hydronic systems and components. COREQUISITE: 10601213 HVAC Hydronic Heating Systems – Theory

HVAC MINI SPLIT SYSTEMS...introduces students to the various components that make up these systems and will be able to install, troubleshoot, and service this equipment per manufacturer's instructions.

HVAC PIPING APPLICATIONS...presents to learners the copper, PVC, flexible, and black iron piping practices. Students will learn the skills to measure, cut, form, and connect various HVAC piping materials. This course will include extensive practice with threading, press fitting, brazing, and gluing practices for piping applications.

HVAC RESIDENTIAL FURNACE INSTALLATION...allows hands-on application of the knowledge learned in the heating systems theory class. Students will be identifying the various heating system components and differentiating the various heating systems. COREQUISITES: 10601206 HVAC Heating Systems and Sizing, 10601202 HVAC Duct Systems, and 10601218 HVAC Piping Applications

HVAC RESIDENTIAL FURNACE STARTUP...permits the learner to commission various heating systems and apply their previous knowledge and skill to troubleshoot common heating system faults as well as replace frequently damaged components. COREQUISITES: 10601219 HVAC Electrical Applications and 10601216 HVAC Residential Furnace Installation

HVACR LIGHT COMMERCIAL ROOFTOP UNITS...reviews components of light commercial rooftop (5 ton and smaller) units with and without economizers. Learners will troubleshoot system components, identify programs, and implement corrective actions. COREQUISITE: 10601208 HVAC Residential Furnace Startup

HVACR REFRIGERATION APPLICATIONS...provides instruction in refrigeration system piping, load calculation, sizing, and component selection. Training also covers service, troubleshooting, and the repair of commercial refrigeration systems including walk-in coolers/freezers, reach-in coolers/freezers, and ice machines. COREQUISITE: 10601212 HVAC Air Conditioning – Startup

MANUFACTURING MATH...prepares the learner to use scientific calculators for the applications of common fraction and mixed number problems, decimal problems, inch and metric conversion problems, basic percentage problems, powers and roots, and pre-algebra problems.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

**Program Number 50-413-1
4-Year Contract**

**Work Hours (including related instruction): 8320
Related Instruction Hours: 720 • Night School Hours: 8**

ABOUT THE APPRENTICESHIP

Apprenticeships are employer-sponsored training programs. You must have a contract before being invited to school. A special application process is used for these programs. Please contact the Apprenticeship Office for the proper forms. Apprenticeship means you earn while you learn. If you want a career in a skilled trade, apprenticeship is the best way to get there. You'll combine on-the-job training with on campus learning—you'll have the best of both worlds when it comes to learning the skills you need to get ahead. And even better, you'll earn a paycheck while you learn those skills.

ABOUT THE CAREER

Industrial electricians maintain and repair many different types of electrical equipment. In addition, they modify and install electrical equipment such as motors, transformers, generators, controls, instruments, lighting systems, and power distribution. Typical duties of this trade include performing preventative maintenance; replacing units or parts such as wiring, fuses, circuit breakers, coils or switches; measuring, cutting, bending, threading and installing conduits; using such devices as test lamps, volt-ohm meters and oscilloscopes; working from blueprints, drawings, and diagrams; making mathematical computations to determine the current carrying capacities of electrical wire and equipment; and troubleshooting AC and DC drives and programmable logic controllers.

CAREERS

Graduates of Lakeshore's Industrial Electrician Apprenticeship program work as journey-level industrial electricians in commercial, industrial, and public establishments.

INDUSTRIAL APPRENTICE APPLICATION REQUIREMENTS

- Determined by employer
- Wisconsin Apprentice Contract

PROGRAM OUTCOMES

- Apply AC and DC theory to an industrial setting.
- Apply the National Electric Code requirements to industrial equipment and facilities.
- Apply operational and troubleshooting principles to a transformer installation.
- Maintain electric motors and motor controls.
- Test solid-state electronic system components.
- Apply operational and troubleshooting principles to power systems and variable speed drives.
- Apply operational and troubleshooting principles to programmable logic controllers and automation equipment.
- Apply operational and troubleshooting principles to fluid power systems.
- Interpret industrial equipment drawings and electrical prints.
- Communicate trade and occupational-related information effectively.

APPROXIMATE COSTS

Contact the Lakeshore Apprenticeship Office or visit www.lakeshore.edu/apprenticeship for detailed information.

SPECIAL NOTE

You must have a sponsoring employer and contract before attending school.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

Catalog No.	Class Title	Credit(s)
Term 1		
50413750	DC Electricity for IE Part 1	1
50413773	Safety and Print Reading for IE	0.5
50413762	Industrial Electrician Motor Controls 1	1
50413752	Code 1: Intro to the NEC	0.5
		3
Term 2		
50413774	DC Electricity for IE Part 2	1
50413763	Industrial Electrician Motor Controls 2	1
50413756	Code 2: Cords/Cables and Conductors	0.5
		2.5
Term 3		
50413751	AC Electricity for IE Part 1	1
50413764	Industrial Electrician Motor Controls 3	1
50413757	Code 3: Enclosures and Raceways	0.5
		2.5
Term 4		
50413775	AC Electricity for IE Part 2	1
50413769	IE Programmable Logic Controllers 1	1
50413753	Code 4: OCPD and Electrical Device	0.5
		2.5
Term 5		
50413760	Industrial Electrician Transformers	1
50413770	IE Programmable Logic Controllers 2	1
50413759	Code 5: Transformers	0.5
		2.5
Term 6		
50413761	IE Motors and Generators	1
50413771	IE Programmable Logic Controllers 3	1
50413758	Code 6: Motors and Generators	0.5
		2.5
Term 7		
50413768	IE Solid State Electronics	2
50413767	Fluid Power Systems for IE - Hydraulics	0.5
50413766	Fluid Power Systems for IE - Pneumatics	0.5
		3
Term 8		
50413765	Power Systems & Variable Speed Drives for IE	2
50413776	Code 7: Grounding and Bonding	0.5
50413772	Alternative Energy Systems	0.5
		3
		TOTAL 21.5

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with the Apprenticeship Office for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AC ELECTRICITY FOR IE PART 1...introduces 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 the modern industrial electric systems. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

AC ELECTRICITY FOR IE PART 2...introduces 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 the modern industrial electric systems. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

ALTERNATIVE ENERGY SYSTEMS...examines new and emerging technologies influenced by alternative energy trends which are impacting work processes today and in the future. The course introduces apprentices to alternative energy systems related knowledge and skills. 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 1: INTRO TO THE NEC...introduces apprentice to the layout and purpose of the National Electric Code (NEC). It also strives to teach the apprentice proper methodology to research a code question and correctly interpret what they are reading. Apprentices will research the structure of the NEC and define the requirements of the code that are common to all electrical installations. Apprentices will examine the installation requirements for fire pumps, emergency systems and fire alarms. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maint Tech Apprentice requirements met

CODE 2: CORDS/CABLES AND CONDUCTORS...examines course five of eight, article 300 of the NEC and wiring methods for industrial electrical applications. In addition, apprentices will determine sizing requirements for cords and cables for installations common to industrial facilities. Finally, the course will identify code requirements for equipment installations in hazardous locations. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maint Technician Apprentice requirements met

CODE 3: ENCLOSURES AND RACEWAYS...examines course six of eight covering selection of proper conductors and raceways for industrial electrical installations as required by the NEC and other electrical codes. In addition, course competencies will include examining the installation requirements for data and communication cables. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 4: OCPD AND ELECTRICAL DEVICE...introduces the industrial electrical apprentice how to plan for the installation of overcurrent protection devices and how to select the proper boxes, cabinets and conduits for industrial electrical codes. This is the second of 8 course modules on the NEC. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 5: TRANSFORMERS...examines course eight of eight which 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. CONDITION: 504131 Ind Electrician Appr or 504641 Maint Tech Apprentice reqs met

CODE 6: MOTORS AND GENERATORS...examines course seven of eight which 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 7: GROUNDING AND BONDING...examines the application of grounding to industrial electrical situations as required by the NEC and other electrical codes. Apprentices will complete their review of this portion of the NEC and examine additional related electrical codes in effect across Wisconsin. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

DC ELECTRICITY FOR IE PART 1...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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

DC ELECTRICITY FOR IE PART 2...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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

FLUID POWER SYSTEMS FOR IE- HYDRAULICS...examines hydraulics course 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

FLUID POWER SYSTEMS FOR IE- PNEUMATICS...examines pneumatics customized for industrial electrician apprentices who deal with fluid power systems. This course will relate the basics of pneumatic theory and pneumatic components. Safety and the interrelationship between hydraulic power with electrical control is emphasized. CONDITION: 504131 Ind Electrician Appr or 504641 Maint Tech Apprentice reqs met

IE MOTORS AND GENERATORS...introduces the industrial electrician apprentices to explore motor controls. This course introduces concepts, terminology, and safety. In addition, this is designed to give the Industrial Electrician Apprentice the knowledge required by industry to maintain electric motors and generators. This course material will cover DC motors and generators, single-phase and three-phase motors, as well as alternators. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

IE PROGRAMMABLE LOGIC CONTROLLERS 1...designed to teach the fundamentals of programmable logic controller and its programming software. The first course of 3 will introduce terminology, concepts, print reading and safety. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maint Tech Apprentice requirements met

IE PROGRAMMABLE LOGIC CONTROLLERS 2...examines second of three courses for industrial electrician apprentices. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

IE PROGRAMMABLE LOGIC CONTROLLERS 3...examines third course of three for industrial electrician apprentices. PLC applications and assessment projects are planned. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Tech Apprentice requirements met

IE SOLID STATE ELECTRONICS...provides apprentice with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identification, and operating characteristics of solid-state devices are investigated. The apprentice builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective component are applied. Replacement of printed circuit board components is performed. Also examined is the effect of temperature on devices. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Tech Apprentice requirements met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 1...introduces learner through the fundamentals of electric motor control. Will learn to recognize and draw the basic symbols, the language of motor controls, and how to apply these symbols into current industrial format. Will also learn to draw ladder and wiring diagrams. 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 2...examines second course of three and examines motor controls applicable to the industrial electrician trade. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 3...examines third of three courses examining motor controls applicable to the industrial electrician trade. Applications and assessment activities are intended in this course. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN TRANSFORMERS...introduces Industrial Electrician Apprentice 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

POWER SYSTEMS AND VARIABLE SPEED DRIVES FOR IE...provides opportunity for students to learn about power systems and variable speed drives (VSD's). Topics include electricity, electronics, power transmissions, motor operations, AC and DC motor drives, servo and stepper drives, peripherals and communication. Will also explore closed loop control, feedback devices, and drive maintenance and the troubleshooting of VSD's. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

SAFETY AND PRINT READING FOR IE...acquaints the apprentice 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

ABOUT THE PROGRAM

This certificate provides a basic understanding to Weld Safety, Math, Metallurgy, Tools, and Print Reading. It also introduces the learner to two different weld processes, Shielded Metal Arc (SMAW) and Gas Metal Arc (GMAW). This is an entry level, pathway certificate to the 27 credit Welding Industrial Technical Diploma.

PROGRAM OUTCOMES

- Apply safety practices.
- Interpret blueprints and AWS Welding symbols.
- Apply basic math to the field of welding.
- Perform SMAW and GMAW welding processes in various positions.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/introduction-industrial-welding>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- This certificate offers flexible start dates throughout the year. All classes meet the American Welding Society requirements.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Credits transfer to Lakeshore's Welding–Industrial and Fabrication Technician programs.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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COURSES

10442100	Safety and Welding Fundamentals*	1
31442351	Precision Measurement and Layout*	1
31442350	Metal Manufacturing Processes*	1
31442310	SMAW-Flat Position (Stick)*	1
31420325	Manufacturing Math*	1
31442308	Weld Examination*	1
31442320	GMAW-Flat Position (Wire/Mig)*	1
31442322	GMAW-Horizontal Position (Wire/Mig)*	1
31442385	Weld Print 1 Print Fundamentals*	1
31442324	Flux Core Arc-Flat/Horizontal Position*	1

TOTAL 10

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

FLUX CORE ARC-FLAT/HORIZONTAL (WIRE/MIG)...will have learners demonstrate safe shop working practices while welding fillet welds in flat and horizontal positions using the FCAW welding process. Learners will perform single bevel groove welds and V-groove welds in flat and horizontal positions using the FCAW, and will perform groove welds with and without backing material. COREQUISITE: 31442322 GMAW-Horizontal Position (Wire/Mig)

GMAW-FLAT POSITION (WIRE/MIG)...prepares the learner to demonstrate safe shop work practices; learners will perform set up and shut down of GMAW and MCAW equipment; weld mild steel using the GMAW and MCAW welding processes, and weld in the flat position using the GMAW process. PREREQUISITE: 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding

GMAW-HORIZONTAL POSITION (WIRE/MIG)...will use safe shop work practices while producing 3/4" fillet welds using the GMAW and MCAW welding processes and 1/4" fillet welds while welding tube to plate in the horizontal position. Learners will produce groove weldments in flat and horizontal positions, using .035 hard wire, .052 Metal Core and Metal electrode wires. COREQUISITE: 31442320 GMAW-Flat Position (Wire/Mig)

MANUFACTURING MATH...prepares the learner to use scientific calculators for the applications of common fraction and mixed number problems, decimal problems, inch and metric conversion problems, basic percentage problems, powers and roots, and pre-algebra problems.

METAL MANUFACTURING PROCESSES...prepares the learner to communicate using proper terminology that is used in industry as it pertains to the use of hand/power tools and measurement. The learner will demonstrate good safety practices while in a workplace environment, demonstrate the proper use of hand and power tools. The learner will complete steel fabrications using hand/power tools and classify and install industrial fasteners. The learner will be introduced to material handling operations by using the overhead crane and forklift.

PRECISION MEASUREMENT AND LAYOUT...prepares the learner to communicate proper measurement terminology that is used in industry; will develop safety practices for the workplace while using measuring equipment; proper use of measuring equipment and obtain measurement readings from Measuring equipment; layout steel fabrication using hand measuring devices and layout equipment. The learner will inspect and analyze a variety of steel fabrications while using measuring equipment.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

SMAW-FLAT POSITION (STICK)...prepares the learner to demonstrate safe shop work practices; make bead on plate welds on mild steel; make padding plate welds on mild steel; make fillet welds in 3/8" mild steel plate in the flat position; and make groove welds in mild steel plate. PREREQUISITE: 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding

WELD EXAMINATION...is a study of the basic principles of weld quality. Emphasis will be on identifying and testing ferrous and non-ferrous materials. Learners will be introduced to hardening of ferrous material using the Oxyfuel process. The learner will be introduced to the inspection process of welds through NDT (non-destructive testing) and DT (destructive testing).

WELD PRINT 1 PRINT FUNDAMENTALS...prepares the learner to interpret manufacturing drawing by applying orthographic projection principles, by recognizing types of lines used in print reading, and how manufacturing prints are dimensioned. Develop print reading strategies by locating the bill of materials, title blocks, and revision blocks. Learners will be introduced to the AWS welding symbols and how they relate to manufacturing drawing.

ABOUT THE PROGRAM

Prepares the learner for entry-level maintenance and production employment. The student will have hands-on learning of basic maintenance and electrical tasks as well as instruction in print and math that pertain to the manufacturing environment. The student will also get a basic understanding of tools and measurement that are used in manufacturing.

PROGRAM OUTCOMES

- Demonstrate safe work procedures.
- Maintain basic industrial equipment.
- Communicate technical information.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/introduction-maintenance-mechanic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

- Students may need to supply their own safety glasses and welding gloves.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

- Certificate embedded in the Maintenance Mechanic and Electro-Mechanical Maintenance Technician Technical Diplomas
- Electro-Mechanical Automation Technology
- Maintenance Mechanic/Millwright Journeyworker

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10804113	College Technical Math 1A	3
10462207	Tools and Measurement*	1
10462209	Maintenance Introduction*	1
10462211	Maintenance Print Reading*	2
10462127	Bearings and Lubrication	2
10442100	Safety and Welding Fundamentals*	1

TOTAL 10

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BEARINGS AND LUBRICATION...prepares the learner to properly identify, remove, install, and maintain both plain and rolling element bearings used with either a radial or axial load, including ball, cylindrical roller, tapered roller, linear, and thrust bearings; use manufacturers' resources for proper usage and life of bearings; and look at proper types, properties, and application methods of lubrication. PREREQUISITE: 10462109 Maintenance Intro or 31462309 Industrial Maintenance Intro or COREQUISITES: 10804113 College Tech Math 1A and 10462209 Maintenance Intro

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. COREQUISITE: Math placement assessment or equivalent

MAINTENANCE INTRODUCTION...prepares the learner to apply basic safety, mechanics, force, friction, work, and energy; learn terminology related to maintenance; introduction to threaded and non-threaded fasteners and concrete anchoring; learn to use precision measuring tools; introduction to single-phase and three-phase motor wiring. PREREQUISITE: 31462325 Maintenance Tools and Measurement or 10462107 Tools and Measurement or COREQUISITE: 10462207 Tools and Measurement

MAINTENANCE PRINT READING...prepares the learner to read prints; make isometric sketches; interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

TOOLS AND MEASUREMENT...prepares the learner to use hand tools, precision measuring instruments, and torque tools.

ABOUT THE PROGRAM

Learn Machining and Computer Numerical Control (CNC) at your own pace, through hands-on learning. Just about every product that you use in your daily activities is the result of a machine tool manufacturing process. If you like hands-on work, are detail-oriented, and are able to develop and follow through on work instructions, a career in machine tool operation offers you lifelong opportunities.

PROGRAM OUTCOMES

- Apply basic safety practices in the machine shop.
- Interpret basic industrial/engineering drawings.
- Apply basic precision measuring methods to part inspection.
- Perform basic machine tool equipment set-up and operation

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/introduction-precision-machining>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

FINANCIAL AID

This program is not eligible for financial aid. Talk with your Admissions Advisor about payment options.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- This program offers flexible start dates throughout the year.

RELATED PROGRAMS

- Certificate is embedded in the Precision Machining Technology and CNC Automation Technician Technical Diplomas
- Machinist Apprenticeship
- Tool & Die Apprenticeship

CONTACT

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Catalog No.	Class Title	Credit(s)
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COURSES

31442350	Metal Manufacturing Processes*	1
31420330	Precision Measuring*	1
31420385	Orthographic Projection Print*	1
31420325	Manufacturing Math*	1
31420338	Drills and Saws*	1
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
31444301	G&M Code Programming*	1

TOTAL 8

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DRILLS AND SAWS...prepares the learner to interpret the attributes of hole-producing tools, follow drilling machine safety rules, identify components, operate sensitive drilling machine, identify metal composition and classification, follow cutoff safety rules, operate horizontal and vertical cutoff machines.

G&M CODE PROGRAMMING...will have the learner demonstrate an understanding of Computer Numerical Control (CNC) systems, interpret positions in the coordinate system, prepare a cutting tool list, prepare a machining process list, identify, and use common G&M codes, and prepare G&M part programs for machining centers. A basic understanding of cutters used on the mills is necessary to be successful in this class.

MANUAL LATHE OPERATION...prepares the learner to perform lathe facing, turning, hole producing and threading operations safely.

MANUAL MILL OPERATION...prepares the learner to perform squaring, slot milling and hole producing using a vertical mill machine safely.

MANUFACTURING MATH...prepares the learner to use scientific calculators for the applications of common fraction and mixed number problems, decimal problems, inch and metric conversion problems, basic percentage problems, powers and roots, and pre-algebra problems.

METAL MANUFACTURING PROCESSES...prepares the learner to communicate using proper terminology that is used in industry as it pertains to the use of hand/power tools and measurement. The learner will demonstrate good safety practices while in a workplace environment, demonstrate the proper use of hand and power tools. The learner will complete steel fabrications using hand/power tools and classify and install industrial fasteners. The learner will be introduced to material handling operations by using the overhead crane and forklift.

ORTHOGRAPHIC PROJECTION PRINT...prepares the learner to read prints, make isometric sketches, interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

PRECISION MEASURING...prepares the learner to use semi-precision and precision measuring instruments and measurement techniques and use a surface plate as a basis for precision measurements.

Program Number 10-151-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Cybersecurity Specialists implement, maintain, and audit the security of an organization's computer networks and systems. Learn to protect data confidentiality, integrity and availability using current real-world technology, processes, and procedures. Emphasis is placed on vigilant security awareness, threat detection and implementing appropriate incident responses.

PROGRAM OUTCOMES

- Identify security strategies.
- Implement secure infrastructures.
- Conduct security testing.
- Analyze security data.
- Mitigate risk.
- Develop security documentation.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/information-technology-it/it-cybersecurity-specialist>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10154122	PC Support*	3
10150114	Networking 1*	3
10154124	Information Security Principles*	3
10801136	English Composition 1	3
10804133	Math & Logic	3
		15
Term 2		
10150173	Server Administration 1*	3
10150176	Networking 2*	3
10150131	Linux*	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10809196	Introduction to Sociology OR 10809122 Introduction to American Government OR 10809166 Introduction to Ethics	3
		15
Term 3		
10150163	Networking 3*	3
10150130	Virtualization*	3
10151104	Intrusion Detection*	3
10151137	Incident Response*	3
10809198	Introduction to Psychology	3
		15
Term 4		
10150165	Networking 4*	3
10150179	Network Security*	3
10151164	Penetration Testing*	3
10151133	Network Forensics and Threat Hunting*	3
10151102	Cybersecurity Capstone*	3
		15
		TOTAL 60

*CBE delivery only

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CYBERSECURITY CAPSTONE...enhances the student's ability operate in the cybersecurity field. Participants will collect and correlate digital forensics information, and showcase their cybersecurity knowledge in this independent, self-paced, project-based capstone course. PREREQUISITE: 10150176 Networking 2

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

INCIDENT RESPONSE...introduces the student to the tools and techniques commonly used for detecting threats to an enterprise infrastructure. Learners will implement strategies for documenting and reporting detected events based on industry standard compliance frameworks. PREREQUISITE: 10150176 Networking 2

INFORMATION SECURITY PRINCIPLES...introduces the learner to Information Systems Security. Students will review and analyze the control and security concerns in the information systems environment; the security challenges created from the emergence of new technology and the changing internal and external environments; and the effect of legal, regulatory, and current security technology on policy development.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

INTRUSION DETECTION...introduces the learner to the most commonly used tools organizations use to detect and prevent network intrusions. Participants will get hands-on experience implementing and configuring intrusion detection and intrusion prevention systems (IDS/IPS). PREREQUISITE: 10150176 Networking 2

LINUX...is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and Intranet services.

MATH & LOGIC...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. Discuss math and reading academic course support with your Counselor.

NETWORK FORENSICS AND THREAT HUNTING...provides the learner with a first look at some of the tools, techniques, and procedures used for network-based forensics and threat hunting. Participants will collect and correlate current and historic network data to create a profile of an attack for post-incident investigations and reporting or proactive threat hunting. PREREQUISITE: 10150176 Networking 2

NETWORK SECURITY...introduces the student to the various methodologies for defending a network. Learners will develop an in-depth theoretical understanding of network security principles as well as the tools and configurations available. The learner will emphasize on the practical application of skills needed to design, implement, and support a secure Cisco network. PREREQUISITE: 10150163 Networking 3

NETWORKING 1...is a lecture/hands-on course designed to introduce students to network fundamentals. Topics covered include: OSI Reference Model; LAN and WAN topologies; cabling systems; access methods; protocols; Internet working devices (e.g. hubs, bridges, routers, switches, etc.); and basic network design.

NETWORKING 2...provides the students with networking terminology, protocols, network standards, LAN's, WAN's, TCP/IP addressing, and routing. PREREQUISITE: 10150114 Networking 1

NETWORKING 3...introduces the student to switching technology, hardware and software firewalls, and virtual private networks (VPN). PREREQUISITE: 10150176 Networking 2

NETWORKING 4...focuses on configuring, managing, and monitoring a firewall in a lab environment. Successful completion of this course enhances the student's understanding of how to configure and manage next-generation firewalls. PREREQUISITE: 10150176 Networking 2

PC SUPPORT...prepares you to be able to install, manage, repair, and troubleshoot PC hardware and Windows, Linux, and Mac operating systems. You will learn how to set up a new computer, identify system requirements, install or upgrade operating systems, manage external devices, troubleshoot common computer problems, and connect to a small home network. Opportunity to earn TestOut PC Pro Certification.

PENETRATION TESTING...provides the learner with an overview of the tools and techniques commonly used for penetration testing. Through hands-on exercises, students will learn the proper selection and application of a given tool for the intended task. Also included are strategies for documenting and reporting on the outcome of the test. Students will demonstrate the ability to plan and execute a basic network security audit in a simulated business environment. PREREQUISITE: 10150176 Networking 2

SERVER ADMINISTRATION 1...is a hands-on course designed to introduce the learner to the installation and configuration of Windows Server servers. The student will learn how to install and configure servers, configure server roles and features, configure Hyper-V, deploy and configure core network services, install and administer Active Directory (AD), and create and manage Group Policy. PREREQUISITE: 10154124 Information Security Principles

SPEECH...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. Discuss reading academic course support with your Counselor.

VIRTUALIZATION...is a hands-on course designed to introduce the learner to the skills needed to install, configure, and manage a highly available and scalable virtual infrastructure. Objectives include: create, configure, migrate, manage, and monitor virtual machines and virtual appliances; manage user access to the virtual infrastructure; and configure and manage virtual network and storage systems. PREREQUISITE: 10154124 Information Security Principles

Program Number 10-150-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Computers networked together sharing data and resources are powerfully amazing! Today, businesses of all sizes are networking their computers to maximize efficiency and productivity. If creating an overall computer network strategy, having the ability to analyze ideas/processes, installing hardware/software, and troubleshooting problems are skills you would like to put to use in a career, becoming a network specialist is your ticket to success.

PROGRAM OUTCOMES

- Implement computer networks.
- Implement client systems.
- Implement server operating systems.
- Implement network security components.
- Develop technical documentation.
- Troubleshoot network systems.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/information-technology-it-it-network-specialist>.

APPROXIMATE COSTS

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10804133	Math & Logic	3
		15
Term 2		
10150173	Server Administration 1*	3
10150176	Networking 2*	3
10150131	Linux*	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10809196	Introduction to Sociology OR 10809122 Introduction to American Government OR 10809166 Introduction to Ethics	3
		15
Term 3		
10150174	Server Administration 2*	3
10150163	Networking 3*	3
10150168	Network Design & Documentation*	3
10150130	Virtualization*	3
10809198	Introduction to Psychology	3
		15
Term 4		
10150175	Server Administration 3*	3
10150165	Networking 4*	3
10150164	Mobile Devices*	3
10150179	Network Security*	3
10150181	IT Networking Capstone*	3
		15
		TOTAL 60

*CBE delivery only

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ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

INFORMATION SECURITY PRINCIPLES...introduces the learner to Information Systems Security. Students will review and analyze the control and security concerns in the information systems environment; the security challenges created from the emergence of new technology and the changing internal and external environments; and the effect of legal, regulatory, and current security technology on policy development.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

IT NETWORKING CAPSTONE...will integrate many of the technologies and concepts that the students have learned throughout the Network Specialist program. The integration projects will include such areas as network client and server administration, general networking concepts, IP addressing, network security, and switch and router configuration. PREREQUISITES: 10150130 Virtualization, 10150174 Server Administration 2, 10150163 Networking 3

LINUX...is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and Intranet services.

MATH & LOGIC...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. Discuss math and reading academic course support with your Counselor.

MOBILE DEVICES...are quickly becoming indispensable tools in the production environment. This course will introduce the learner to various industry mobile technologies used to promote better decision-making, reporting, and improve manufacturing performance. Some of the devices covered are tablets, smartphones, barcode printers and readers, and radio frequency identification (RFID) readers/writers.

NETWORK DESIGN/DOCUMENTATION...is a lecture/hands-on course designed to introduce students to network design and documentation fundamentals. Topics include: needs analysis, hardware needs and analysis, network layout and design, and documenting a network. PREREQUISITE: 10150176 Networking 2

NETWORK SECURITY...introduces the student to the various methodologies for defending a network. Learners will develop an in-depth theoretical understanding of network security principles as well as the tools and configurations available. The learner will emphasize on the practical application of skills needed to design, implement, and support a secure Cisco network. PREREQUISITE: 10150163 Networking 3

NETWORKING 1...is a lecture/hands-on course designed to introduce students to network fundamentals. Topics covered include: OSI Reference Model; LAN and WAN topologies; cabling systems; access methods; protocols; Internet working devices (e.g. hubs, bridges, routers, switches, etc.); and basic network design.

NETWORKING 2...provides the students with networking terminology, protocols, network standards, LAN's, WAN's, TCP/IP addressing, and routing. PREREQUISITE: 10150114 Networking 1

NETWORKING 3...introduces the student to switching technology, hardware and software firewalls, and virtual private networks (VPN). PREREQUISITE: 10150176 Networking 2

NETWORKING 4...focuses on configuring, managing, and monitoring a firewall in a lab environment. Successful completion of this course enhances the student's understanding of how to configure and manage next-generation firewalls. PREREQUISITE: 10150176 Networking 2

PC SUPPORT...prepares you to be able to install, manage, repair, and troubleshoot PC hardware and Windows, Linux, and Mac operating systems. You will learn how to set up a new computer, identify system requirements, install or upgrade operating systems, manage external devices, troubleshoot common computer problems, and connect to a small home network. Opportunity to earn TestOut PC Pro Certification.

SERVER ADMINISTRATION 1...is a hands-on course designed to introduce the learner to the installation and configuration of Windows Server servers. The student will learn how to install and configure servers, configure server roles and features, configure Hyper-V, deploy and configure core network services, install and administer Active Directory (AD), and create and manage Group Policy. PREREQUISITE: 10154124 Information Security Principles

SERVER ADMINISTRATION 2...is a hands-on course designed to introduce the learner to administration of Windows Server servers. The student will learn how to deploy, manage, and maintain servers; configure file and print services; configure network services and access; configure a network policy server infrastructure; configure and manage Active Directory; and configure and manage Group Policy. Opportunity to earn TestOut Server Pro Certification. PREREQUISITE: 10150173 Server Administration 1

SERVER ADMINISTRATION 3...empowers students to streamline IT operations and enhance efficiency through automation. Create scripts to automate repetitive tasks, manage IT resources at scale, and solve complex IT challenges. By learning Git and GitHub, students effectively collaborate with teams and maintain code integrity. Equips students with the practical skills to optimize infrastructure, improve reliability, and drive innovation.

SPEECH...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. Discuss reading academic course support with your Counselor.

VIRTUALIZATION...is a hands-on course designed to introduce the learner to the skills needed to install, configure, and manage a highly available and scalable virtual infrastructure. Objectives include: create, configure, migrate, manage, and monitor virtual machines and virtual appliances; manage user access to the virtual infrastructure; and configure and manage virtual network and storage systems. PREREQUISITE: 10154124 Information Security Principles

ABOUT ITS

Lakeshore's Individualized Technical Studies (ITS) associate degree is designed for working adults with unique backgrounds and educational needs that can't be met by the college's existing associate degree programs. ITS provides the option of creating your own degree. As an ITS student, you'll work with an occupational mentor of your choosing, an academic advisor, and college faculty to design an academically sound, student- and industry-specific program.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Curriculum varies depending upon the learner's individualized educational plan. Per the Wisconsin Technical College System (WTCS), 25 percent of coursework/credits must be completed from Lakeshore and must be in the area of technical credits.

UNIQUE REQUIREMENTS

Development of an individualized portfolio to be approved by the ITS Committee.

- Create an educational degree plan.
- Selection of occupational mentor(s).

CONTACT

Chou Yang, Registrar
920.693.1733 • chou.yang@lakeshore.edu

General Education 15 credits

Communication - 6 credits
Math or Science - 3 credits
Introduction to Psychology - 3 credits
Social Science - 3 credits
Diversity Recommended

ITS Occupational/Technical 45 credits

One program specific area - 20 credits
Other program areas - 25 credits

Career Clusters of Emphasis:

Agriculture, Food & Natural Resources
Arts, AV Technology & Communications
Business, Management & Administration
Education & Training
Information Technology
Law, Public Safety & Security
Manufacturing
Marketing, Sales & Service
Science, Technology, Engineering & Math

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

**Program Number 61-150-2
Certificate • 18 credits**
ABOUT THE PROGRAM

The IT Support Technician embedded pathway certificate prepares students to provide support and technical assistance to computer users with computer software and hardware systems. First year program courses for IT Network Specialist and IT Cybersecurity Specialist.

PROGRAM OUTCOMES

- Qualifies for entry-level positions in a wide variety of IT fields.
- Prepares learner for associate degree program.
- Covers CompTIA A+, CompTIA Net+, and Cisco CCNA curriculum.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/it-support-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

SPECIAL NOTE

Credits apply toward IT Network Specialist and IT Cybersecurity Specialist.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10154122	PC Support*	3
10150114	Networking 1*	3
10154124	Information Security Principles*	3
		9
Term 2		
10150173	Server Administration 1*	3
10150176	Networking 2*	3
10150131	Linux*	3
		9

TOTAL 18

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

INFORMATION SECURITY PRINCIPLES...introduces the learner to Information Systems Security. Students will review and analyze the control and security concerns in the information systems environment; the security challenges created from the emergence of new technology and the changing internal and external environments; and the effect of legal, regulatory, and current security technology on policy development.

LINUX...is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and Intranet services.

NETWORKING 1...is a lecture/hands-on course designed to introduce students to network fundamentals. Topics covered include: OSI Reference Model; LAN and WAN topologies; cabling systems; access methods; protocols; Internet working devices (e.g. hubs, bridges, routers, switches, etc.); and basic network design.

NETWORKING 2...provides the students with networking terminology, protocols, network standards, LAN's, WAN's, TCP/IP addressing, and routing. **PREREQUISITE:** 10150114 Networking 1

PC SUPPORT...prepares you to be able to install, manage, repair, and troubleshoot PC hardware and Windows, Linux, and Mac operating systems. You will learn how to set up a new computer, identify system requirements, install or upgrade operating systems, manage external devices, troubleshoot common computer problems, and connect to a small home network. Opportunity to earn TestOut PC Pro Certification.

SERVER ADMINISTRATION 1...is a hands-on course designed to introduce the learner to the installation and configuration of Windows Server servers. The student will learn how to install and configure servers, configure server roles and features, configure Hyper-V, deploy and configure core network services, install and administer Active Directory (AD), and create and manage Group Policy. **PREREQUISITE:** 10154124 Information Security Principles

Program Number 10-152-7
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

The program curriculum focuses on programming principles, including web application development, mobile device development, database administration, and integration of web marketing and website design. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Design web and software applications.
- Apply data persistence technologies.
- Develop software applications.
- Develop documentation.
- Develop web applications.
- Use infrastructures.
- Analyze new technologies.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/information-technology-it/web-software-developer>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Students are required to have access to a computer with internet connectivity. Computers are available at Lakeshore's campuses for those students who do not have a computer and/or internet access at home.
- Students are required to purchase a domain name and web hosting in Terms 2 and 4. The approximate cost is \$60 per term.
- Students are strongly encouraged to take English Composition 1 during the summer before enrolling in Term 1 classes. General Education courses during summer term allow concentrated time during the fall and spring term for core program courses, and enrolling in Math & Logic in the first term.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10152196	Web Development 1*	3
10152100	Programming Introduction*	4
10152232	Intro to Database Design and Development*	3
10804133	Math & Logic	3
10801136	English Composition 1	3
		16

Term 2

10201118	Advancements in Web & Development*	2
10152199	Web Development 2*	4
10152187	Web Development 3*	4
10809166	Introduction to Ethics	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
		16

Term 3

10152123	Mobile Device Development 1*	3
10152109	Object-Oriented Programming 1*	4
10152112	Object-Oriented Programming 2*	4
10196189	Teambuilding and Problem Solving*	3
		14

Term 4

10152114	Mobile Device Development 2*	3
10152117	Object-Oriented Programming 3*	4
10150131	Linux*	3
10152119	Portfolio Assessmt-Web & Software Dev*	1
10809198	Introduction to Psychology OR 10809188 Developmental Psychology	3
		14

TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCEMENTS IN WEB AND DEVELOPMENT...will explore the latest trends in Web design and development. Students will apply advanced techniques to create progressive and contemporary websites. **PREREQUISITE:** 10152196 Web Development 1

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

INTRO TO DATABASE DESIGN AND DEVELOPMENT...introduces the student to DBMS components, the design and development of databases, table relationships, SQL, database best practices and database integration with web applications.

INTRODUCTION TO ETHICS: THEORY AND APPLICATION...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. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

LINUX...is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and Intranet services.

MATH & LOGIC...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. Discuss math and reading academic course support with your Counselor.

MOBILE DEVICE DEVELOPMENT 1...introduces students to using common development tools, using GitHub, using modern JavaScript, using JavaScript array prototype methods, using typescript, using common UI elements for a mobile app, testing code, and analyzing the pros and cons of the available methods of mobile app development. **PREREQUISITE:** 10152199 Web Development 2

MOBILE DEVICE DEVELOPMENT 2...introduces students to advanced mobile development topics including using components, creating web components, creating Angular components, creating JSX, creating React components, using application state in a React app, adding routing to a React app, implementing styling in a mobile app, and binding dynamic data to React components. **PREREQUISITE:** 10152123 Mobile Device Development 1

OBJECT-ORIENTED PROGRAMMING 1...introduces students to the Java programming language and object-oriented programming (OOP) concepts. Students will use the Java programming language and OOP to create desktop applications and server-side applications and services.

OBJECT-ORIENTED PROGRAMMING 2...introduces students to the Python programming language. Students will learn to develop applications using Python's language features and the library modules and packages.

OBJECT-ORIENTED PROGRAMMING 3...introduces the learner to Microsoft's .NET platform, .NET frameworks, content-managed web sites and Web server architecture. Students will develop interactive and dynamic web applications using Microsoft ASP.NET, MVC architecture, and ADO.NET components to access data and data services through the creation of data-driven ASP.NET web pages and configuration of an ASP.NET application. Microsoft SQL Server is used.

PORTFOLIO ASSESSMENT - WEB AND SOFTWARE DEVELOPER...assesses what the student has learned through the Web and Software Developer degree. The course will focus on the continued development of their electronic career portfolio, the freelance/contract software development market, the analysis of the achievement of their core abilities and program outcomes, and job search topics such as resumes, cover letters, and interview skills. **PREREQUISITES:** 10152187 Web Development 3, 10152112 Object-Oriented Programming 2, 10201118 Advancements in Web & Development, and 10152123 Mobile Device Development 1

PROGRAMMING INTRODUCTION...introduces the students to the programming process. Students will start with designing programs using flowcharts and progress to using programming code to create programs that use variables, data types, decisions, loops, arrays, and functions.

SPEECH...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. Discuss reading academic course support with your Counselor.

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

WEB DEVELOPMENT 1...introduces the students to web page design principles and proceeds to teach students how to create their own visually appealing designs for the web. Students will have hands-on experience using current versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) to code and format accessible, valid, and optimized websites. Websites will be published live on the web using FTP. Students also explore recent trends in web design and development.

WEB DEVELOPMENT 2...reintroduces the student to Javascript to develop dynamic client-side applications. Students will learn the latest version of Javascript and career relevant Javascript frameworks. **PREREQUISITE:** 10152100 Programming Introduction

WEB DEVELOPMENT 3...introduces the learner to PHP, MySQL, PHP frameworks, content-managed Web sites, and Web server architecture. Topics covered include an introduction to the Apache Web server, server-side scripting, PHP control logic and functions, controlling state using sessions and cookies, querying database content and population to a Web page, MySQL relational database administration, and processing form information and populating it to a MySQL database. **PREREQUISITE:** 10152124 Intro to Database Design and Development

**Program Number 30-152-4
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

The program curriculum focuses on programming principles, including web application development, database administration, and website design. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Design web sites or applications.
- Utilize essential data technologies.
- Develop basic applications.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/information-technology-it/it-web-development-specialist>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Students are required to have access to a computer with internet connectivity. Computers are available at Lakeshore's campuses for those students who do not have a computer and/or internet access at home.
- Students are required to purchase a domain name and web hosting in Term 2. The approximate cost is \$60 per term.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10152196	Web Development 1*	3
10152100	Programming Introduction*	4
10152124	Intro to Database Design & Development*	3
10804133	Math & Logic	3
		13
Term 2		
10201118	Advancements in Web & Development*	2
10152199	Web Development 2*	4
10152187	Web Development 3*	4
		10
		TOTAL 23

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCEMENTS IN WEB AND DEVELOPMENT...will explore the latest trends in Web design and development. Students will apply advanced techniques to create progressive and contemporary websites. **PREREQUISITE:** 10152196 Web Development 1

INTRO TO DATABASE DESIGN AND DEVELOPMENT...introduces the student to DBMS components, the design and development of databases, table relationships, SQL, database best practices and database integration with web applications.

MATH & LOGIC...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. Discuss math and reading academic course support with your Counselor.

PROGRAMMING INTRODUCTION...introduces the students to the programming process. Students will start with designing programs using flowcharts and progress to using programming code to create programs that use variables, data types, decisions, loops, arrays, and functions.

WEB DEVELOPMENT 1...introduces the students to web page design principles and proceeds to teach students how to create their own visually appealing designs for the web. Students will have hands-on experience using current versions of Hypertext Markup Language (HTML) and Cascading Style Sheets (CSS) to code and format accessible, valid, and optimized websites. Websites will be published live on the web using FTP. Students also explore recent trends in web design and development.

WEB DEVELOPMENT 2...reintroduces the student to Javascript to develop dynamic client-side applications. Students will learn the latest version of Javascript and career relevant Javascript frameworks. **PREREQUISITE:** 10152100 Programming Introduction

WEB DEVELOPMENT 3...introduces the learner to PHP, MySQL, PHP frameworks, content-managed Web sites, and Web server architecture. Topics covered include an introduction to the Apache Web server, server-side scripting, PHP control logic and functions, controlling state using sessions and cookies, querying database content and population to a Web page, MySQL relational database administration, and processing form information and populating it to a MySQL database. **PREREQUISITE:** 10152124 Intro to Database Design and Development

ABOUT THE PROGRAM

The program of study for the Associate Degree in Legal Studies/Paralegal is ABA (American Bar Association) approved and complies with the requirements established by the Wisconsin Bar Association to become a Wisconsin Bar Certified Paralegal. Paralegals work under the supervision of lawyers in a range of tasks—researching the law; investigating; preparing for hearings, trials, and real estate closings; interviewing clients and witnesses; and preparing legal documents and other legal correspondence. Paralegals cannot give legal advice or represent clients in court. If you are detail-oriented, organized, strong in communications, and enjoy researching and analyzing facts, you might find a career as a paralegal very rewarding. A degree in Legal Studies/Paralegal provides a wide range of career opportunities beyond the law office, including insurance companies, bank and bank trust departments, real estate title insurance and sales, government offices and agencies, the court system, human resources, and corporate legal departments.

PROGRAM OUTCOMES

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Synthesize various sources into a supportable legal conclusion.
- Demonstrate professionalism as a member of a legal team.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/legal-studiesparalegal>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE FOR ONLINE LEARNERS

While some of the courses may be offered online, students are required to take at least nine semester credits or the equivalent of legal specialty courses through traditional classroom instruction. This requirement may be satisfied through synchronous interactive video systems, as they are considered equivalent to traditional classroom instruction.

Lakeshore's Legal Studies/Paralegal program is approved by the American Bar Association.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Fall)		
10102160	Business Law 1	3
10110101	Introduction to Paralegalism and Legal Ethics	3
10110168	Criminal Law - Paralegal	3
10110135	Legal Technology	3
10801136	English Composition 1	3
		15
Term 2 (Spring)		
10110102	Civil Litigation 1	3
10110104	Legal Research	3
10110160	Employment Law - Paralegal	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10809172	Introduction to Diversity Studies	3
		15
Term 3 (Fall)		
10110103	Civil Litigation 2	3
10110105	Legal Writing	3
10110132	Personal Branding - Paralegal	1
10110130	Real Estate Law - Paralegal	3
10809122	Introduction to American Government	3
10809198	Introduction to Psychology	3
		16
Term 4 (Spring)		
10110107	Legal Aspects of Business Organizations	3
10110114	Administration of Estates	3
10110143	Paralegal Internship OR 10110145 Paralegal Studies	2
10110106	Family Law	3
10804189	Introductory Statistics	3
		14
		TOTAL 60

Term 1 (Fall)

10102160	Business Law 1	3
10110101	Introduction to Paralegalism and Legal Ethics	3
10110168	Criminal Law - Paralegal	3
10110135	Legal Technology	3
10801136	English Composition 1	3

15
Term 2 (Spring)

10110102	Civil Litigation 1	3
10110104	Legal Research	3
10110160	Employment Law - Paralegal	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
10809172	Introduction to Diversity Studies	3

15
Term 3 (Fall)

10110103	Civil Litigation 2	3
10110105	Legal Writing	3
10110132	Personal Branding - Paralegal	1
10110130	Real Estate Law - Paralegal	3
10809122	Introduction to American Government	3
10809198	Introduction to Psychology	3

16
Term 4 (Spring)

10110107	Legal Aspects of Business Organizations	3
10110114	Administration of Estates	3
10110143	Paralegal Internship OR 10110145 Paralegal Studies	2
10110106	Family Law	3
10804189	Introductory Statistics	3

14
TOTAL 60

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADMINISTRATION OF ESTATES...provides the learner with the skills to assist attorneys to administer estates, differentiate between probate and nonprobate property, contrast various forms of marital property, gather appropriate factual and financial information, select and draft appropriate forms to open an estate, prepare an inventory, draft a final accounting and documents to close an estate, draft tax documents, prepare powers of attorney and simple wills, and assist in the valid execution of estate planning documents. PREREQUISITE: 10110101 Intro to Paralegalism

BUSINESS LAW 1...provides the learner with the skills to summarize the American legal system; diagram the state/federal court systems; evaluate dispute resolution methods; sequence the civil litigation process; summarize the administrative agencies; differentiate civil and criminal law; apply theories of negligence, intentional tort, and product liability; summarize elements of a contract; assess the validity of a contract; assess third-party rights and available remedies; and summarize Article II of the UCC.

CIVIL LITIGATION 1...provides the learner with the skills to evaluate causes of action and defenses; conduct an initial client interview; perform an initial investigation; draft a summons and complaint, answer, counterclaim, cross complaint, motions and supporting documents, select appropriate discovery devices; draft interrogatories and responses; prepare for depositions; draft a Notice of deposition and Subpoenas; analyze fact patterns; and evaluate evidentiary objections. PREREQUISITE: 10110101 Intro to Paralegalism

CIVIL LITIGATION 2...provides the learner with the skill to evaluate and summarize depositions; evaluate evidentiary challenges; prepare a witness list; draft settlement documents; locate expert witnesses; prepare witnesses; prepare for presentation of evidence at trial; prepare a trial notebook; draft a Bill of Costs; prepare post trial motions; evaluate and research appellate issues. PREREQUISITE: 10110102 Civil Litigation 1 or CONDITION: 301102 Post-Bacc Legal Studies/Paralegal admission requirements met

CRIMINAL LAW-PARALEGAL...provides the learner with the skills to analyze state and federal criminal procedures, determine if a search and arrest is in accordance with the Fourth Amendment, analyze the Miranda rules, draft a criminal summons and complaint, determine possible defenses for a defendant, draft motions, analyze a criminal complaint and jury instructions for required elements, create demonstrative evidence, create a trial notebook, conduct a client interview, and contrast prosecution and defense roles. COREQUISITE: 10110101 Intro to Paralegalism

EMPLOYMENT LAW-PARALEGAL...provides the learner with the skills to analyze state and federal law governing employment relationships, job discrimination, sexual harassment, workplace privacy, labor standards and human resource management. PREREQUISITE: 10110101 Intro to Paralegalism

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

FAMILY LAW...provides the learner with the skills to conduct an initial client interview for a family law matter, including divorce and domestic violence; draft initial pleadings for divorce, financial family law documents, divorce discovery documents, and concluding documents in divorces; assess the need for post-divorce modification and enforcement; and outline factors involving child custody and support. PREREQUISITE: 10110101 Intro to Paralegalism

INTRODUCTION TO AMERICAN GOVERNMENT...introduces American political processes and institutions. It focuses on rights and responsibilities of citizens and the process of participatory democracy. Learners examine the complexity of the separation of powers and checks and balances. It explores the role of the media, interest groups, political parties and public opinion in the political process. It also explores the role of state and national government in our federal system. Discuss reading academic course support with your Counselor.

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PARALEGALISM AND LEGAL ETHICS...introduces the learner to the paralegal profession, including civil, criminal, and administrative procedure; state and federal judicial systems; legal research; case briefing; ethical rules that apply to paralegals; law office software; and substantive civil law.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

LEGAL ASPECTS OF BUSINESS ORGANIZATIONS...provides learners with the skills to analyze legal aspects of the formation, operation, and dissolution of sole proprietorships, partnerships, limited liability entities, and corporations; draft documents related to various business entities such as Certificates of Limited Partnership; Articles of Organization and Incorporation, Name Reservation Applications, Organizational Resolutions, Form SS-4 and 2553, Stock Certificates, Resolutions and Minutes, and Amendments and Articles of Dissolution. PREREQUISITE: 10110101 Intro to Paralegalism

LEGAL RESEARCH...provides the learner with the skills to differentiate between primary or secondary authority, locate statutes and constitutional provisions, locate case law, locate administrative regulations, locate secondary authority, use correct citation form, verify and update legal authority, formulate legal issues, use effective research strategies, evaluate solutions to legal problems, and use computer-assisted and internet legal research strategies. Some classes will be held off campus in a law library. PREREQUISITE: 10110101 Intro to Paralegalism

LEGAL TECHNOLOGY...provides learners with practical knowledge of the application of computers in the legal environment. This course consists of hands-on experience in the application of legal software and the internet to the current practice of law.

LEGAL WRITING...provides the learner with the skills to draft legal correspondence, operative legal documents, case briefs, and legal and office memoranda; analyze and synthesize legal authority; use correct citation form; draft a civil pleading, affidavit, trial brief, and appellate brief; and apply rules of civil procedure. PREREQUISITE: 10110104 Legal Research and (10801136 English Comp 1 or 10801195 Written Comm) or CONDITION: 301102 Post-Bacc Legal Studies/Paralegal admission requirements

PARALEGAL INTERNSHIP...enhances the participant's ability to perform the duties of a paralegal; to seek and obtain employment as a paralegal; apply paralegal skills in an actual workplace setting; to perform legal research and writing; and understand law office systems and administration. Students are responsible for seeking and obtaining an internship position for a minimum of 144 hours in a legal environment under the supervision of an attorney or other qualified professional, completing an internship agreement and e-portfolio, maintaining a work log and obtaining approval from the internship instructor. COREQUISITE: 10110105 Legal Writing

PERSONAL BRANDING-PARALEGAL...prepares the student to prepare an electronic portfolio, to develop a career plan, write a resume, create a cover letter, prepare for an interview, search for work on the internet, adapt a resume for an electronic scan, and post a resume and cover letter on the internet.

REAL ESTATE LAW - PARALEGAL...provides learner with the skills to analyze types of real estate ownership; analyze the effect of the Marital Property Act on real estate; determine the requirements of listing contracts; draft legal descriptions; draft an offer to purchase; negotiate a real property sale; prepare financing documents; compare abstracting and title insurance; record deeds; compare land contracts; summarize foreclosure procedure; draft closing documents; compare landlord and tenant rights and responsibilities. COREQUISITE: 10110101 Intro to Paralegalism and Legal Ethics

SPEECH...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. Discuss reading academic course support with your Counselor.

ABOUT THE PROGRAM

Introduces the learner to animal health, diseases, and immune systems, genotypic effects, and selection. Provides an understanding of livestock anatomy, endocrinology, and factors that influence reproduction performance. Also introduces the student to financial impacts of running a successful agribusiness or farm operation, which includes a basic understanding of business management practices, and public policies.

PROGRAM OUTCOMES

- Apply genetic applications and methods of mating selection
- Apply the understanding of reproduction and fertility to reproduction performance
- Apply and know the common diseases of domestic livestock and related intervention practices
- Prepare for Artificial Insemination Certification seminar/exam (*additional vendor fee will be assessed if this option is chosen*)

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/agribusiness-livestock-basic>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Credits transfer to Lakeshore's Agriculture Management Technician Technical Diploma, which can be completed with one additional year of part-time classes. Students may then enter the second year of the associate degree, Agribusiness Science & Technology.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Fall)		
10006200	Introduction to Animal Science*	3
10006202	Ag Employability and Professionalism*	3
		6
Term 2 (Spring)		
10006206	Livestock Production Systems & Management*	2
		2
		TOTAL 8

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

AG EMPLOYABILITY AND PROFESSIONALISM...prepares the student for a career by covering personality assessments, advocacy, networking, job shadowing, stress management, career exploration, problem solving, and business etiquette. It also emphasizes leadership and conflict resolution skills through UWEX Employer of Choice certification. The culmination is the creation of a portfolio showcasing their preparedness for industry.

INTRODUCTION TO ANIMAL SCIENCE ...provides animal science fundamentals including animal health, animal environments, anatomy and physiology, genetics and reproduction, animal feedstuffs, and animal-related safety.

LIVESTOCK PRODUCTION SYSTEMS AND MANAGEMENT...engages the student in the exploration and study of a variety of livestock management systems including feeding arrangements, health, marketing considerations, the use of computer systems, personnel issues, and financial impacts of management decisions. **PREREQUISITE:** 10006114 Intro to Animal Science or 10091102 Dairy Cattle Mgmt or **COREQUISITE:** 10091200 Intro to Dairy Cattle Mgmt

Program Number 50-420-2
4-Year Contract
Work Hours (including related instruction): 8000
Related Instruction Hours: 432 • Night School Hours: 8

ABOUT APPRENTICESHIP

Apprenticeships are employer-sponsored training programs. You must have a contract before being invited to school. A special application process is used for these programs. Please contact the Apprenticeship Office for the proper forms. Apprenticeship means you earn while you learn. If you want a career in a skilled trade, apprenticeship is the best way to get there. You'll combine on-the-job training with on-campus learning—you'll have the best of both worlds when it comes to learning the skills you need to get ahead. And even better, you'll earn a paycheck while you learn those skills.

ABOUT THE CAREER

Machines allow industry to produce large quantities of materials quickly, precisely, and cost-effectively. But without high-skilled operators, the machines are useless. That's where you come in. The Machinist Apprenticeship program is an employer-sponsored, hands-on training program in which you'll learn all phases of the machinist occupation. If you're interested in working with mechanical equipment and following precise plans to produce materials of the highest quality, becoming a journey-level machinist may be the perfect career for you.

CAREERS

Graduates of Lakeshore's Machinist Apprenticeship program work as journey-level machinists in a variety of industrial settings.

INDUSTRIAL APPRENTICE APPLICATION REQUIREMENTS

- Determined by employer
- Wisconsin Apprentice Contract

PROGRAM OUTCOMES

- Inspect parts and material.
- Apply knowledge of milling machine operations, including manual and/or CNC controlled.
- Apply principles of drilling machine operations, including manual and/or CNC controlled.
- Compare turning machine operations, including manual and/or CNC controlled.
- Compare cut-off machine operations, including manual and/or CNC controlled.
- Apply metallurgical principles to materials and work processes.
- Compare practices for assembling parts per specifications.

APPROXIMATE COSTS

Contact the Lakeshore Apprenticeship Office or visit www.lakeshore.edu/apprenticeship for detailed information.

SPECIAL NOTE

You must have a sponsoring employer and contract before attending school.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

Catalog No.	Class Title	Credit(s)
Term 1		
50420714	Engineering Drawings for Machine Trades Apprentice 1	1
50420713	Precision Measurement for Machine Tool Trades	1
		2
Term 2		
50420734	Mathematics for Machinist Apprentice 1	1
50420715	Mechanical Hardware and Hand Tools for Machine Trades Apprentice	0.5
50420720	Materials and Cut-Off Machines for Machine Trades	0.5
		2
Term 3		
50420721	Math for Machine Trades 2	0.5
50420722	Engineering Drawings for Machine Trades 2	0.5
50420718	Drilling Machines for Machine Trades Apprentice	0.5
50420717	Milling Machines for Machine Trades Apprentice	0.5
		2
Term 4		
50420724	CNC Programming and Planning for Machine Trades	1
50420716	Turning Machines for Machine Trades Apprentice	0.5
50420723	Intro to CAM for Machine Tools Trades Apprentice	0.5
		2
Term 5		
50420725	Basic CAD/CAM for Machine Trades Apprentice	1
50420726	Jig and Fixture Design for Machine Trades Apprentice	0.5
50420719	Grinding Machines for Machine Trades Apprentice	0.5
		2
Term 6		
50420733	CNC Operations for Machine Tool Trades Apprentice	1
50420727	Geometric Design and Tolerancing for Machine Trades	0.5
50420731	Metallurgy for Machine Trades Apprentices	0.5
		2
		TOTAL 12

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with the Apprenticeship Office for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BASIC CAD/CAM FOR MACHINE TRADES APPRENTICE... is designed to provide concepts and techniques used in computer-aided design (CAD) and computer-aided manufacturing (CAM) as part of their related instruction. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

CNC OPERATIONS FOR MACHINE TOOL TRADES APPRENTICE... will examine CNC related operations and safety. Course competencies include classifying types of equipment, comparing CNC tooling, setup, and work holding operations. Additional CNC programming skill development is included in the course. CNC controls and communications are explored as well. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

CNC PROGRAMMING AND PLANNING FOR MACHINE TRADES... is a classroom introduction to CNC programming for apprentices, with a focus on CNC turning and milling centers. Apprentices will create set up sheets, develop tool lists, calculate speeds and feeds, assign tool offsets and write CNC program. CONDITION: 504393 Tool & Die Apprentice or 504202 Machinist Apprentice prog requirements met

DRILLING MACHINES FOR MACHINE TRADES APPRENTICE... focuses on the safety, terminology, construction and operations of drilling machines in the metal-working industry. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

ENGINEERING DRAWINGS FOR MACHINE TRADES APPRENTICE 1... will acquaint the apprentice with the interpretation of engineering prints and other technical and manufacturing documentation. The primary focus of the course will be on that part of manufacturing most closely related to machining and tooling. Background information is provided relative to the process used to create and finish the product or piece part on the prints being studied. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

ENGINEERING DRAWINGS FOR MACHINE TRADES 2... prepares the learner to interpret manufacturing prints to extract detailed information about threads, sections, auxiliary views, fasteners, surface finishes, welding symbols, assembly, geometric location, and tolerances. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

GEOMETRIC DESIGN AND TOLERANCING FOR MACHINE TRADES... will acquaint the apprentice with the skills to interpret the geometric dimensions and tolerances found on engineering drawings and in other industrial documents. Instruction concentrates on interpreting the symbols, identifying tolerance zones and determining ways to check parts for conformity to the specified geometric controls. Reference is made to ASME Y14.5M• 1994. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

GRINDING MACHINES FOR MACHINE TRADES APPRENTICE... focuses on the safety, terminology, construction, and operation of grinding machines in the metal working industry. It instructs apprentices in the use of traditional grinding machines and the attachments and accessories frequently encountered in manufacturing operations that use the common grinding processes. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

INTRO TO CAM FOR MACHINE TOOLS TRADES APPRENTICE... is widely used in industry for creating G&M code programs for CNC machines. In this course the learner will explore the Mastercam interface. You will be determining the proper post processors for the work being done. Create and edit basic geometry. Create and edit tool paths for basic operations. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

JIG AND FIXTURE DESIGN FOR MACHINE TRADES APPRENTICE... introduces the apprentice to the concepts of jig and fixture design as part of their apprentice related instruction. Topics include the basic elements of tool design, jig and fixture application, and the actual design of tooling. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATERIALS AND CUTOFF MACHINES FOR MACHINE TRADES... prepares the learner to identify metal composition and classification, follow cutoff machine tool safety rules, operate horizontal cutoff machine tools, and operate vertical machine tools. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATH FOR MACHINE TRADES 2... prepares the learner to interpret symbols used in algebraic expressions, solve equations by the rearrangement of formulas, use formulas, solve unknown angles using angular principles, and solve for the angles and length of sides in right triangles. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATHEMATICS FOR MACHINIST APPRENTICE 1... provides applied mathematics instruction from a review of basic arithmetic; basic algebra; applications based on geometry; right triangle trigonometry and oblique angle trigonometry; and compound angles. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MECHANICAL HARDWARE & HAND TOOLS FOR MACHINE TRADES APPRENTICE... provides instruction for the apprentice in the recognition, selection, and operation of mechanical hardware and hand tools. Apprentices are taught to use outside sources to select correct component or tool sizes, characteristics, and operating parameters. Apprentices will sharpen drills and single point cutting tools. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program reqs met

METALLURGY FOR MACHINE TRADES APPRENTICES... prepares the learner to interpret the properties of ferrous and non-ferrous materials as well as how to heat treat and test the hardness of ferrous materials. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MILLING MACHINES FOR MACHINE TRADES APPRENTICE... will instruct apprentices on the basic principles of vertical and horizontal milling machines for the machine tool trade. Instruction includes safety, basic parts and functions of the machines, work holding devices, tooling requirements, and feeds and speeds. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

PRECISION MEASUREMENT FOR MACHINE TOOL TRADES... is designed to acquaint the apprentice with the measurement systems and tools most frequently used in layout and machining processes. Learning outcomes relate to semi-precision through super-precision measuring tools and equipment combined with opportunities to investigate new technologies. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

TURNING MACHINES FOR MACHINE TRADES APPRENTICE... will acquaint the apprentice with the terminology, methods, and operations for turning machines used in the metal-working industry. Apprentices will learn to perform calculations needed to operate turning machines including speed and feed calculations. Apprentices will make calculations necessary to setup a turning machine for screw threads and taper operations. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

**Program Number 31-462-2
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

Machines are important in our lives—directly or indirectly. Broken or inefficient machines slow the pace of manufacturing and, ultimately, profits. To remain competitive in today's fast-paced industrial/manufacturing environment, equipment needs to be maintained to run at peak performance. If you like to troubleshoot problems, put theory into practice, to work hands-on, and have interests in mechanical processes, a career in industrial maintenance is your key to success.

PROGRAM OUTCOMES

- Demonstrate safe work procedures.
- Install industrial equipment.
- Maintain industrial equipment.
- Troubleshoot industrial equipment.
- Repair industrial equipment.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/maintenance-mechanic>

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Students may need to supply their own safety glasses and welding gloves.
- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

- Millwright Apprenticeship
- Electro-Mechanical Maintenance Technician
- Electro-Mechanical Automation Technology

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1

10804113	College Technical Math 1A	3
10462207	Tools and Measurement*	1
10462209	Maintenance Introduction*	1
10462211	Maintenance Print Reading*	2
10462127	Bearings and Lubrication	2
10420294	Machine Tool Introduction*	2
10442100	Safety and Welding Fundamentals*	1
10457203	Maintenance Fabrication*	1
10462215	Layout and Rigging*	1
		14

Term 2

10620255	Hydraulics and Pneumatics*	3
10462117	Power Transmission	3
10462123	Pumps, Fluid/Air Handling	2
10462121	Troubleshooting and Machine Repair	3
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
10801196	Oral/Interpersonal Communication	3
		16

TOTAL 30

*CBE delivery only

**Calculus 1 is designed for students planning to transition to a 4-year college following Lakeshore program completion in place of 10804113 College Technical Math 1A.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BEARINGS AND LUBRICATION...prepares the learner to properly identify, remove, install, and maintain both plain and rolling element bearings used with either a radial or axial load, including ball, cylindrical roller, tapered roller, linear, and thrust bearings; use manufacturers' resources for proper usage and life of bearings; and look at proper types, properties, and application methods of lubrication. PREREQUISITE: 10462109 Maintenance Intro or 31462309 Industrial Maintenance Intro or COREQUISITES: 10804113 College Tech Math 1A and 10462209 Maintenance Intro

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

HYDRAULICS AND PNEUMATICS...prepares the learner to identify hydraulic and pneumatic component symbols and terms, adjust a pressure relief valve, analyze the operation of a pilot operated relief valve; analyze Pascal's law; evaluate flow, velocity, work and power in industrial hydraulic and pneumatic circuits; analyze meter-in, meter-out, and bypass flow control circuits; identify basic hydraulic and pneumatic control valves; and assemble hydraulic circuits. COREQUISITE: 10804113 College Tech Math 1A

LAYOUT AND RIGGING...prepares the learner to perform layout skills for industrial maintenance to include machine layout, proper rigging, installation, and leveling with emphasis on baseline layout, machine rigging and installation, machine leveling, and alignment procedures. PREREQUISITE: 10462109 Maintenance Introduction or COREQUISITE: 10462209 Maintenance Introduction

MACHINE TOOL INTRODUCTION...prepares the learner with the skills to identify basic types of machining processes, follow standard shop safety rules, use semi-precision and precision measuring tools, perform workpiece layout procedures, identify metal composition and classification, follow cutoff machine safety rules, operate vertical and horizontal cutoff machines, follow sensitive drill press safety rules, identify drill press components, interpret attributes of hole-producing tools, and operate a sensitive drill press.

MAINTENANCE FABRICATION...introduces the learner to various types of structural steel, sheet metal, and pipe, and prepares the learner to perform fabrication from assembly prints, including cutting, welding, bending, straightening, and repair. PREREQUISITE: 31442346 Industrial Maintenance Intro to Welding or 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals

MAINTENANCE INTRODUCTION...prepares the learner to apply basic safety, mechanics, force, friction, work, and energy; learn terminology related to maintenance; introduction to threaded and non-threaded fasteners and concrete anchoring; learn to use precision measuring tools; introduction to single-phase and three-phase motor wiring. PREREQUISITE: 31462325 Maintenance Tools and Measurement or 10462107 Tools and Measurement or COREQUISITE: 10462207 Tools and Measurement

MAINTENANCE PRINT READING...prepares the learner to read prints; make isometric sketches; interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

MANUAL LATHE OPERATION...prepares the learner to perform lathe facing, turning, hole producing and threading operations safely.

MANUAL MILL OPERATION...prepares the learner to perform squaring, slot milling and hole producing using a vertical mill machine safely.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

POWER TRANSMISSION...introduces the learner to belt, chain, and gear drives used in industrial maintenance applications, including v-belts, flat belts, timing belts, conveyor chains, roller chains, bevel gears, worm gears, helical gears, spur gears, couplings, and alignment with emphasis on identification, installation, repair, and maintenance. COREQUISITE: 10462127 Bearings and Lubrication or PREREQUISITE: 10462125 Bearings and Lubrication

PUMPS, FLUID/AIR HANDLING...prepares the learner to identify, install, repair, and maintain common pumps and plumbing applications, including centrifugal pumps, diaphragm pumps, packing and seals, tubing, and installing hose and piping used with fluid and air handling. PREREQUISITES: 10620155 Hydraulics and Pneumatics and 10462119 Power Transmission or COREQUISITES: 10620255 Hydraulics and Pneumatics and 10462117 Power Transmission and 10804113 College Technical Math 1A

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

TOOLS AND MEASUREMENT...prepares the learner to use hand tools, precision measuring instruments, and torque tools.

TROUBLESHOOTING AND MACHINE REPAIR...prepares the learner to perform essential troubleshooting, repair, and preventive maintenance of various machine tools and installations used in industrial maintenance and to integrate the skills learned in the other maintenance courses to perform complete repair of machine tools. PREREQUISITE: 10462119 Power Transmission or COREQUISITES: 10462117 Power Transmission and 10462123 Pumps, Fluid/Air Handling and PREREQUISITE: 10462115 Layout and Rigging or COREQUISITE: 10462125 Layout and Rigging

Program Number 50-423-1
4-Year Contract
Work Hours (including related instruction): 8320
Related Instruction Hours: 576 • Night School Hours: 8

ABOUT APPRENTICESHIP

Apprenticeships are employer-sponsored training programs. You must have a contract before being invited to school. A special application process is used for these programs. Please contact the Apprenticeship Office for the proper forms. Apprenticeship means you earn while you learn. If you want a career in a skilled trade, apprenticeship is the best way to get there. You'll combine on-the-job training with on-campus learning—you'll have the best of both worlds when it comes to learning the skills you need to get ahead. And even better, you'll earn a paycheck while you learn those skills.

ABOUT THE CAREER

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. This program provides the related instruction portion for this trade's apprenticeship.

CAREERS

Graduates of Lakeshore's Maintenance Mechanic/Millwright Apprenticeship program work as journey-level maintenance mechanics/millwrights in a variety of industrial and organizational settings.

INDUSTRIAL APPRENTICE APPLICATION REQUIREMENTS

- Determined by employer
- Wisconsin Apprentice Contract

PROGRAM OUTCOMES

- Demonstrate proper rigging techniques.
- Select an appropriate power transmission system for a given application.
- Identify suitable pumps for given applications.
- Recommend bearings for given applications.
- Plan for fabricating parts and assemblies according to specifications.
- Apply operational and troubleshooting principles to fluid power systems.
- Lay out an equipment installation plan.
- Plan maintenance schedules for a given system.

APPROXIMATE COSTS

Contact the Lakeshore Apprenticeship Office or visit www.lakeshore.edu/apprenticeship for detailed information.

SPECIAL NOTE

You must have a sponsoring employer and contract before attending school.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

Catalog No.	Class Title	Credit(s)
Term 1		
50423710	Math for MMMP	1
50423713	Precision Measurements for MMMP	0.5
50423717	Electricity for MMMP	0.5
		2
Term 2		
50423711	Print Reading for MMMP	1
50423740	Mechanical Fastening and Safety for MMMP	1
		2
Term 3		
50423741	Equipment Installation for MMMP	1
50423714	Rigging for MMMP	1
		2
Term 4		
50423738	Sheet Metal and Structural Steel for MMMP	0.75
50423716	Metallurgy for MMMP	0.5
50423715	Welding for MMMP	0.75
		2
Term 5		
50423742	Power Transmission Principles for MMMP	0.5
50423743	Power Transmission Drives for MMMP	1.5
		2
Term 6		
50423731	Couplings and Alignment for MMMP	0.5
50423744	Bearings and Lubrication for MMMP	1
50423724	Preventative and Predictive Maintenance for MMMP	0.5
		2
Term 7		
50423720	Pipefitting and Valves for MMMP	0.75
50423722	Packings, Seals, and Gaskets for MMMP	0.5
50423732	Pumps for MMMP	0.75
		2
Term 8		
50423721	Hydraulic Systems for MMMP	1
50423745	Pneumatic Systems for MMMP	1
		2
		TOTAL 16

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with the Apprenticeship Office for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BEARINGS AND LUBRICATION FOR MMMP...examines bearing types and applications, and compares various equipment bearings. Apprentices will develop skills related to bearing inspection, selection, removal, mounting, and diagnosing bearing failures. Apprentices will also examine the types, principles, and applications of bearing and machine lubricants and lubricating systems. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

COUPLINGS AND ALIGNMENT FOR MMMP...compares different coupling types and examines common misalignment problems. Apprentices will develop skills related to inspecting, troubleshooting, lubricating, and preparing couplings for removal and installation by using dial indicators and laser aligners. This course will also discuss types and principles of clutches and brakes. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

ELECTRICITY FOR MMMP...examines basic electrical terms and theory. Apprentices will learn motor wiring, multimeter use as well as lockout tagout as it applies to electricity. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

EQUIPMENT INSTALLATION FOR MMMP...provides knowledge regarding common practice procedures for the layout of equipment installations, planning for moving equipment, and methods for setting and leveling equipment. This class will also examine the principles of concrete as well as anchoring of equipment in concrete. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

HYDRAULIC SYSTEMS FOR MMMP...provides instruction to apprentices concerning many aspects of inspecting, servicing, and troubleshooting hydraulic systems and components. Apprentices will learn safety related issues and be taught proper safety procedures for working with hydraulic systems and components. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

MATH FOR MMMP...examines math concepts as they relate to millwrights and machine maintenance. Apprentices will develop skills related to converting fractions to decimals; using both standard and metric systems; applying basic algebra to solving problems; computing area, volume, mass, and torque; using trigonometry; and using math charts, tables and references in support of common work processes. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

MECHANICAL FASTENING AND SAFETY FOR MMMP...examines safety as it relates to hand and power tools and explores the theory and application of torque in the MMMP Trades. Apprentices will compare fasteners and their uses, analyze fastener failures, and install various mechanical fasteners. In addition, apprentices will compare adhesives and sealant types and applications, develop skills related to applying them in repair applications, interpreting SDS information, and handling hazardous materials. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

METALLURGY FOR MMMP...develops apprentice skills regarding metallurgical concepts. Apprentices will compare various metals and their applications, apply metallurgical techniques to work processes, test metals for hardness, and examine heat treating applications. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PACKINGS, SEALS, AND GASKETS FOR MMMP...will examine packings, seals, and gaskets and compare materials and applications. The skills in layout, cutting, inspecting, removing, and installing these components will be developed. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PIPEFITTING AND VALVES FOR MMMP...introduces apprentices to principles, application and types of pipe, materials, fittings, tubing, and valves, and develops skills related to layout, installation, and maintenance. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PNEUMATIC SYSTEMS FOR MMMP...provides instruction to apprentices concerning many aspects of inspecting, servicing, and troubleshooting pneumatic systems and components. Concepts of compressed air systems and vacuum systems will also be evaluated. Apprentices will learn safety related issues and be taught proper safety procedures for working with pneumatic systems and components and examine preventive maintenance techniques commonly used on the job. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

POWER TRANSMISSION DRIVES FOR MMMP...examines drive transmission systems and applications, including gear drives, chain drives, belt drives, and conveyor systems. Apprentices will compare different types of gear drive systems and components, chain drive systems and components, belt drive systems and components, as well as different types of conveyors and their related components. Apprentices will develop skills necessary for inspecting, troubleshooting, removing, selecting, and installing components used in the various mechanical drive transmission systems. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

POWER TRANSMISSION PRINCIPLES FOR MMMP...examines the physics and principles of simple machines and how those principles are used in the development of the skills necessary for inspecting mechanical power transmission systems and troubleshooting mechanical drive systems. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PRECISION MEASUREMENTS FOR MMMP...develops apprentice skills in precision measurement. Types of measuring instruments will be compared and then measuring skills using tapes, steel rules, micrometers, calipers, indicators, and gauges will be developed. CONDITION: 504231 Millwright Appr or 504641 Maint Tech Appr reqs met

PREVENTIVE AND PREDICTIVE MAINTENANCE FOR MMMP...examines both preventive and predictive maintenance concepts as they apply to millwright work processes and machine maintenance including vibration and lubrication analysis. Apprentices will develop skills related to assessing machine conditions and faults based on both preventative and predictive maintenance. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PRINT READING FOR MMMP...explores reading prints commonly used by millwrights and machine maintenance workers. Course competencies include comparing types of prints, interpreting structural drawings, identifying parts from prints, and developing apprentice sketching drawing skills. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

PUMPS FOR MMMP...compares different pump types including centrifugal, diaphragm, gear, vane and their applications. Apprentices will complete a field inspection of pumps and learn how to troubleshoot, remove, overhaul, and install and perform preventative maintenance on pumps. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

RIGGING FOR MMMP...will compare types of rigging equipment and their uses; determine safe loads, rig & crib loads, and move a load with cranes and hoists, including signaling. Will also cover usage and the safety of ladders and scaffolding. PREREQS: 504423170 Math for MMMP, 50423713 Precision Meas MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mech Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

SHEET METAL AND STRUCTURAL STEEL FOR MMMP...compares types of sheet metal and tools used by the trade. Apprentices will develop skills related to fabricating sheet metal and structural steel, including layout, bending and forming, as well as erecting structural steel. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

WELDING FOR MMMP...compares common welding processes and develops apprentice skills related to welding, cutting, heating and using oxy-gas. Welding with arc, MIG and TIG is included, along with common cutting and joining techniques. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

Program Number 50-464-1
5-Year Contract

Work Hours (including related instruction): 10,000
Related Instruction: 1,296 hours • Night School: 8 hours

ABOUT APPRENTICESHIP

Apprenticeships are employer-sponsored training programs. You must have a contract before being invited to school. A special application process is used for these programs. Please contact the Apprenticeship Office for the proper forms. Apprenticeship means you earn while you learn. If you want a career in a skilled trade, apprenticeship is the best way to get there. You'll combine on-the-job training with on-campus learning—you'll have the best of both worlds when it comes to learning the skills you need to get ahead. And even better, you'll earn a paycheck while you learn those skills.

ABOUT THE CAREER

Maintenance Technicians work in industrial manufacturing and safely perform mechanical and electrical duties to keep machines, equipment, or the structure of a facility in repair. The Maintenance Technician Apprenticeship program is employer sponsored. This program combines the on-the-job hands-on training with related training at the technical college. Some hands-on training is used to reinforce the related training. Thus, skills are developed to help the technician keep machines and equipment operating and productive. If you like to maintain, repair, and troubleshoot problems and put theory to work, a career as a maintenance technician may be your ticket to success.

CAREERS

Graduates of Lakeshore's Maintenance Technician Apprenticeship program work as journey-level maintenance technicians in a variety of industrial and organizational settings.

INDUSTRIAL APPRENTICE APPLICATION REQUIREMENTS

- Determined by employer
- Wisconsin Apprentice Contract

PROGRAM OUTCOMES

- Demonstrate proper rigging techniques.
- Select an appropriate power transmission system for a given application.
- Identify suitable pumps for given applications.
- Recommend bearings for given applications.
- Plan for fabricating parts and assemblies according to specifications.
- Apply operational and troubleshooting principles to fluid power systems.
- Lay out an equipment installation plan.
- Plan maintenance schedules for a given system.
- Apply AC and DC theory to an industrial setting.
- Apply the National Electric Code requirements to industrial equipment and facilities.
- Apply operational and troubleshooting principles to a transformer installation.
- Maintain electric motors and motor controls.
- Test solid-state electronic system components.
- Apply operational and troubleshooting principles to power systems & variable speed drives.
- Apply operational and troubleshooting principles to programmable logic controllers and automation equipment.
- Apply operational and troubleshooting principles to fluid power systems.
- Interpret industrial equipment drawings and electrical prints.
- Communicate trade and occupational-related information effectively.

APPROXIMATE COSTS

Contact the Lakeshore Apprenticeship Office or visit www.lakeshore.edu/apprenticeship for detailed information.

SPECIAL NOTE

You must have a sponsoring employer and contract before attending school.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

*Curriculum and program acceptance requirements are subject to change.
Program start dates vary; check with the Apprenticeship Office for details.
The tuition and fees are approximate based on 2025-2026 rates and are
subject to change prior to the start of the academic year.*

Catalog No.	Class Title	Credit(s)
Term 1		
50423710	Math for MMMP	1
50423713	Precision Measurements for MMMP	0.5
50423717	Electricity for MMMP	0.5
50413750	DC Electricity for IE Part 1	1
50413773	Safety and Print Reading for IE	0.5
50413762	Industrial Electrician Motor Controls 1	1
50413752	Code 1: Intro to the NEC	0.5
Term 2		
50423711	Print Reading for MMMP	1
50423740	Mechanical Fastening and Safety for MMMP	1
50413774	DC Electricity for IE Part 2	1
50413763	Industrial Electrician Motor Controls 2	1
50413756	Code 2: Cords/Cables and Conductors	0.5
Term 3		
50423741	Equipment Installation for MMMP	1
50423714	Rigging for MMMP	1
50413751	AC Electricity for IE Part 1	1
50413764	Industrial Electrician Motor Controls 3	1
50413757	Code 3: Enclosures and Raceways	0.5
Term 4		
50423738	Sheet Metal and Structural Steel for MMMP	0.75
50423716	Metallurgy for MMMP	0.50
50423715	Welding for MMMP	0.75
50413775	AC Electricity for IE Part 2	1
50413769	IE Programmable Logic Controllers 1	1
50413753	Code 4: OCPD and Electrical Device	0.5
Term 5		
50423742	Power Transmission Principles for MMMP	0.5
50423743	Power Transmission Drives for MMMP	1.5
50413760	Industrial Electrician Transformers	1
50413770	IE Programmable Logic Controllers 2	1
50413759	Code 5: Transformers	0.5
Term 6		
50423731	Couplings and Alignment for MMMP	0.5
50423744	Bearings and Lubrication for MMMP	1
50423724	Preventative and Predictive Maintenance for MMMP	0.5
50413761	IE Motors and Generators	1
50413771	IE Programmable Logic Controllers 3	1
50413758	Code 6: Motors and Generators	0.5
Term 7		
50423720	Pipefitting and Valves for MMMP	0.75
50423722	Packings, Seals, and Gaskets for MMMP	0.5
50423732	Pumps for MMMP	0.75
50413768	IE Solid State Electronics	2
50413767	Fluid Power Systems for IE - Hydraulics	0.5
50413766	Fluid Power Systems for IE- Pneumatics	0.5
Term 8		
50423721	Hydraulic Systems for MMMP	1
50423745	Pneumatic Systems for MMMP	1
50413765	Power Systems & Variable Speed Drives for IE	2
50413776	Code 7: Grounding and Bonding	0.5
50413772	Alternative Energy Systems	0.5
TOTAL 37.5		

AC ELECTRICITY FOR IE PART 1...introduces 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 the modern industrial electric systems. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maintenance Tech Apprentice reqs met

AC ELECTRICITY FOR IE PART 2...introduces 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 the modern industrial electric systems. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maintenance Tech Apprentice reqs met

ALTERNATIVE ENERGY SYSTEMS FOR...examines new and emerging technologies influenced by alternative energy trends which are impacting work processes today and in the future. The course introduces apprentices to alternative energy systems related knowledge and skills. 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

BEARINGS AND LUBRICATION FOR MMMP...examines bearing types and applications, and compares various equipment bearings. Apprentices will develop skills related to bearing inspection, selection, removal, mounting, and diagnosing bearing failures. Apprentices will also examine the types, principles, and applications of bearing and machine lubricants and lubricating systems. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

CODE 1: INTRO TO THE NEC...introduces the apprentice to the layout and purpose of the National Electric Code (NEC). It also strives to teach the apprentice proper methodology to research a code question and correctly interpret what they are reading. Apprentices will research the structure of the NEC and define the requirements of the code that are common to all electrical installations. In addition, apprentices will examine the installation requirements for fire pumps, emergency systems and fire alarms. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice reqs met

CODE 2: CORDS/CABLES AND CONDUCTORS...examines course five of eight, article 300 of the NEC and wiring methods for industrial electrical applications. In addition, apprentices will determine sizing requirements for cords and cables for installations common to industrial facilities. Finally, the course will identify code requirements for equipment installations in hazardous locations. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Tech Apprentice reqs met

CODE 3: ENCLOSURES AND RACEWAYS...examines course six of eight covering selection of proper conductors and raceways for industrial electrical installations as required by the NEC and other electrical codes. In addition, course competencies will include examining the installation requirements for data and communication cables. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 4: OCPD AND ELECTRICAL DEVICE...introduces the industrial electrical apprentice how to plan for the installation of overcurrent protection devices and how to select the proper boxes, cabinets and conduits for industrial electrical codes. This is the second of 8 course modules on the NEC. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 5: TRANSFORMERS...examines course eight of eight which 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 6: MOTORS AND GENERATORS...examines course seven of eight which 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

CODE 7: GROUNDING AND BONDING...examines the application of grounding to industrial electrical situations as required by the NEC and other electrical codes. Apprentices will complete their review of this portion of the NEC and examine additional related electrical codes in effect across Wisconsin. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

COUPLINGS AND ALIGNMENT FOR MMMP...compares different coupling types and examines common misalignment problems. Apprentices will develop skills related to inspecting, troubleshooting, lubricating, and preparing couplings for removal and installation by using dial indicators and laser aligners. This course will also discuss types and principles of clutches and brakes. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

DC ELECTRICITY FOR IE PART 1...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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

DC ELECTRICITY FOR IE PART 2...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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

ELECTRICITY FOR MMMP...examines basic electrical terms and theory. Apprentices will learn motor wiring, multimeter use as well as lockout tagout as it applies to electricity. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

EQUIPMENT INSTALLATION FOR MMMP...provides knowledge regarding common practice procedures for the layout of equipment installations, planning for moving equipment, and methods for setting and leveling equipment. This class will also examine the principles of concrete as well as anchoring of equipment in concrete. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

FLUID POWER SYSTEMS FOR IE - HYDRAULICS...examines hydraulics course 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. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maint Tech Apprentice reqs met

FLUID POWER SYSTEMS FOR IE - PNEUMATICS...examines pneumatics customized for industrial electrician apprentices who deal with fluid power systems. This course will relate the basics of pneumatic theory and pneumatic components. Safety and the interrelationship between hydraulic power with electrical control is emphasized. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

HYDRAULIC SYSTEMS FOR MMMP...provides instruction to apprentices concerning many aspects of inspecting, servicing, and troubleshooting hydraulic systems and components. Apprentices will learn safety related issues and be taught proper safety procedures for working with hydraulic systems and components. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

IE MOTORS AND GENERATORS...introduces the industrial electrician apprentices to explore motor controls. This course introduces concepts, terminology, and safety. In addition, this is designed to give the Industrial Electrician Apprentice the knowledge required by industry to maintain electric motors and generators. This course material will cover DC motors and generators, single-phase and three-phase motors, as well as alternators. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

IE PROGRAMMABLE LOGIC CONTROLLERS 1...designed to teach the fundamentals of programmable logic controller and its programming software. The first course of 3 will introduce terminology, concepts, print reading and safety. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

IE PROGRAMMABLE LOGIC CONTROLLERS 2...examines second of three courses for industrial electrician apprentices. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice reqs met

IE PROGRAMMABLE LOGIC CONTROLLERS 3...examines third course of three for industrial electrician apprentices. PLC applications and assessment projects are planned. CONDITION: 504131 Ind Electrician Appr or 504641 Main Tech Appr reqs met

IE SOLID STATE ELECTRONICS...provides apprentice with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identification, and operating characteristics of solid-state devices are investigated. The apprentice builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective component are applied. Replacement of printed circuit board components is performed. Also examined is the effect of temperature on devices. CONDITION: 504131 Ind Electrician Apprentice or 504641 Maintenance Technician Apprentice reqs met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 1...introduces learner through the fundamentals of electric motor control. Will learn to recognize and draw the basic symbols, the language of motor controls, and how to apply these symbols into current industrial format. Will also learn to draw ladder and wiring diagrams. 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 2...examines second course of three and examines motor controls applicable to the industrial electrician trade. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN MOTOR CONTROLS 3...examines third of three courses examining motor controls applicable to the industrial electrician trade. Applications and assessment activities are intended in this course. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

INDUSTRIAL ELECTRICIAN TRANSFORMERS...introduces Industrial Electrician Apprentice 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

MATH FOR MMMP...examines math concepts as they relate to millwrights and machine maintenance. Apprentices will develop skills related to converting fractions to decimals; using both standard and metric systems; applying basic algebra to solving problems; computing area, volume, mass, and torque; using trigonometry; and using math charts, tables and references in support of common work processes. CONDITION: 504231 Millwright Appr or 504641 Maint Tech Apprentice requirements met

MECHANICAL FASTENING AND SAFETY FOR MMMP...examines safety as it relates to hand and power tools and explores the theory and application of torque in the MMMP Trades. Apprentices will compare fasteners and their uses, analyze fastener failures, and install various mechanical fasteners. In addition, apprentices will compare adhesives and sealant types and applications, develop skills related to applying them in repair applications, interpreting SDS information, and handling hazardous materials. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

METALLURGY FOR MMMP...develops apprentice skills regarding metallurgical concepts. Apprentices will compare various metals and their applications, apply metallurgical techniques to work processes, test metals for hardness, and examine heat treating applications. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PACKINGS, SEALS, AND GASKETS FOR MMMP...will examine packings, seals, and gaskets and compare materials and applications. Skills in layout, cutting, inspecting, removing, and installing these components will be developed. PREREQS: 504423170 Math for MMMP, 50423713 Prec Meas MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mech Fastng & Sfty MMMP or 50423712 Fastnrs MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PIPEFITTING AND VALVES FOR MMMP...introduces apprentices to principles, application and types of pipe, materials, fittings, tubing, and valves, and develops skills related to layout, installation, and maintenance. PREREQ: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mech Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PNEUMATIC SYSTEMS FOR MMMP...provides instruction to apprentices concerning many aspects of inspecting, servicing, and troubleshooting pneumatic systems and components. The concepts of compressed air systems and vacuum systems will also be evaluated. Learn safety related issues and taught proper safety procedures for working with pneumatic systems and components and examine preventive maintenance techniques commonly used on the job. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mech Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

POWER SYSTEMS AND VARIABLE SPEED DRIVES FOR IE...provides opportunity for students to learn about power systems and variable speed drives (VSD's). Topics include electricity, electronics, power transmissions, motor operations, AC and DC motor drives, servo and stepper drives, peripherals and communication. Will also explore closed loop control, feedback devices, and drive maintenance and the troubleshooting of VSD's. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

POWER TRANSMISSION DRIVES FOR MMMP...examines drive transmission systems and their applications, including gear drives, chain drives, belt drives, and conveyor systems. Apprentices will compare different types of gear drive systems and components, chain drive systems and components, belt drive systems and components, as well as different types of conveyors and their related components. Apprentices will develop skills necessary for inspecting, troubleshooting, removing, selecting, and installing components used in the various mechanical drive transmission systems. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

POWER TRANSMISSION PRINCIPLES FOR MMMP...examines the physics and principles of simple machines and how those principles are used in the development of the skills necessary for inspecting mechanical power transmission systems and troubleshooting mechanical drive systems. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PRECISION MEASUREMENTS FOR MMMP...develops apprentice skills in precision measurement. Types of measuring instruments will be compared and then measuring skills using tapes, steel rules, micrometers, calipers, indicators, and gauges will be developed. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

PREVENTIVE AND PREDICTIVE MAINTENANCE FOR MMMP...examines both preventive and predictive maintenance concepts as they apply to millwright work processes and machine maintenance including vibration and lubrication analysis. Apprentices will develop skills related to assessing machine conditions and faults based on both preventative and predictive maintenance. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

PRINT READING FOR MMMP...explores reading prints commonly used by millwrights and machine maintenance workers. Course competencies include comparing types of prints, interpreting structural drawings, identifying parts from prints, and developing apprentice sketching drawing skills. CONDITION: 504231 Millwright Apprentice or 504641 Maintenance Technician Apprentice requirements met

PUMPS FOR MMMP...compares different pump types including centrifugal, diaphragm, gear, vane and their applications. Apprentices will complete a field inspection of pumps and learn how to troubleshoot, remove, overhaul, and install and perform preventative maintenance on pumps. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

RIGGING FOR MMMP...compare types of rigging equipment and uses; determine safe loads, rig and crib loads, move a load with cranes and hoists, including signaling. Also cover usage and the safety of ladders and scaffolding. PREREQS: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mech Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

SAFETY AND PRINT READING FOR IE...acquaints the apprentice 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. CONDITION: 504131 Industrial Electrician Apprentice or 504641 Maintenance Technician Apprentice requirements met

SHEET METAL AND STRUCTURAL STEEL FOR MMMP...compares types of sheet metal and tools used by the trade. Apprentices will develop skills related to fabricating sheet metal and structural steel, including layout, bending and forming, as well as erecting structural steel. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

WELDING FOR MMMP...compares common welding processes and develops apprentice skills related to welding, cutting, heating and using oxy-gas. Welding with arc, MIG and TIG is included, along with common cutting and joining techniques. PREREQUISITES: 504423170 Math for MMMP, 50423713 Precision Measure MMMP, 50423717 Electricity MMMP, 50423711 Print Read MMMP and (50423740 Mechanical Fastening & Safety MMMP or 50423712 Fasteners MMMP Trades and 50423723 Adhesives & Sealants MMMP Trades)

Program Number 10-623-3
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Manufacturing Engineering Technology program prepares students to work in the manufacturing sector assisting engineering and management in the design and development of new products and in the improvement of production processes.

PROGRAM OUTCOMES

- Characterize how lean culture and tools can help an organization achieve operational excellence.
- Apply proper engineering principles in design.
- Utilize computer - aided applications in design and manufacture of products and processes.
- Demonstrate the principles of material selection and application.
- Apply automation principles for design and control of manufacturing processes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/manufacturing-engineering-technology>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

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CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10664110	Introduction to Mechatronics*	2
10804113	College Technical Math 1A OR 10804198 Calculus 1** (4 cr)	3
10103121	Excel - Level 1*	1
10196189	Team Building and Problem Solving*	3
10606208	3D Design-SolidWorks 1*	2
10620224	Microcontroller Programming*	1
10606204	Manufacturing Processes and Materials*	2
		14
Term 2		
10664100	Introduction to Industrial Control Systems*	2
10664120	Industrial Internet of Things*	2
10606234	Statics*	2
10620255	Hydraulics and Pneumatics*	3
10620238	Programmable Controllers - Allen Bradley*	3
10801136	English Composition 1	3
		15
Term 3		
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
10196188	Project Management*	3
10449114	Safety in the Workplace*	3
10620168	Robotics Introduction	2
		16
Term 4		
10462211	Maintenance Print Reading* OR 10623123 Blueprint Reading and Metrology* (3 cr)	2
10623270	Manufacturing Cost Analysis*	3
10620171	Robotics Advanced	2
10809144	Macroeconomics OR 10809143 Microeconomics OR 10809196 Introduction to Sociology (3 cr)	3
10809198	Introduction to Psychology	3
10801196	Oral/Interpersonal Communication	3
		16
		TOTAL 61

*CBE delivery only

**Calculus 1 is designed for students planning to transition to a 4-year college following Lakeshore program completion.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

3D DESIGN-SOLIDWORKS 1...introduces the students to the concepts and commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, and add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of the parametric solid models and best practices to ensure robust engineering designs.

COLLEGE TECHNICAL MATHEMATICS 1A...prepares the student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HYDRAULICS AND PNEUMATICS...prepares the learner to identify hydraulic and pneumatic component symbols and terms, adjust a pressure relief valve, analyze the operation of a pilot operated relief valve; analyze Pascal's law; evaluate flow, velocity, work and power in industrial hydraulic and pneumatic circuits; analyze meter-in, meter-out, and bypass flow control circuits; identify basic hydraulic and pneumatic control valves; and assemble hydraulic circuits. COREQUISITE: 10804113 College Tech Math 1A

INDUSTRIAL INTERNET OF THINGS...introduces learners 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 data captured. COREQUISITE: 10664110 Introduction to Mechatronics or CONDITION: 106314 Manufacturing IT

INTRODUCTION TO INDUSTRIAL CONTROL SYSTEMS...introduces learners to basic concepts of industrial computer-controlled systems. The learner explores various types of programming using robots and PLCs and participates in lab experiments designed to introduce programming principles, electronic inputs and outputs (analog and digital), 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. COREQUISITE: 10664110 Introduction to Mechatronics

INTRODUCTION TO MECHATRONICS...introduces learners 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.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POKS, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. COREQUISITE: 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides the student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

MAINTENANCE PRINT READING...prepares the learner to read prints; make isometric sketches; interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

MANUFACTURING COST ANALYSIS...covers cost estimating and financial analysis techniques employed in typical manufacturing and processing industries. Topics include product material and labor costing, justification of expenditures and capital equipment, make vs buy analysis, and inventory costs. Also provides an understanding of soft costs, budgeting, and understanding cost behavior.

MANUFACTURING PROCESSES AND MATERIALS...introduces the learner to various manufacturing processes (casting/molding, injection molding, sheet metal forming/die cutting); machining processes (milling, turning, and drilling); assembly processes (welding, fasteners); and advanced manufacturing technology (3D printing, laser sintering, laser cutting). The learner will also learn how to properly use and read dial and digital micrometers; dial, digital and vernier calipers.

MICROCONTROLLER PROGRAMMING...introduces the learner to concepts in basic digital programming, programming logic, electronic components, and Digital and Analog I/O.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PROGRAMMABLE CONTROLLERS - ALLEN BRADLEY...prepares the learner to understand basic PLC structure and terminology; learn to create and troubleshoot basic PLC programs using the RSLOGIX 500 software and the RSLINX communication software; become familiar with communicating with programming SLC-500 PLCs. This course is highly computer based. Class may qualify for 64 hours of Continuing Education Units (CEUs) for Electricians.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

ROBOTICS ADVANCED...introduces students to adv robot programming commands to include use of Fanuc IRvision on both Fanuc Robotic arm and Delta Robots. Once a student completes both Robotic Introduction and Robotics Advanced they will be well prepared to take the Fanuc Certification test by NOCTI. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians. PREREQ: 10620168 Robotics Introduction.

ROBOTICS INTRODUCTION...introduces the student to robotic axes, movement control, navigating the teach pendant, robotic frames, basic programming commands such as conditional branching, wait and call instructions. Class may qualify for 48 hours of Continuing Education Units (CEUs) for Electricians.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

STATICS...introduces the forces on and in structures that are at rest utilizing SolidWorks. Forces, vectors, resultants, moments, couples, equilibrium, free-body diagrams, friction, centroids, and centers of gravity, and moments of inertia are covered. PREREQUISITE: 10804113 College Tech Math 1A or 10804115 College Technical Math 1 or 10804198 Calculus 1 or 10804118 Intermediate Algebra with Apps

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

Program Number 10-623-5
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Manufacturing Management is a unique associate degree program designed by local industry to meet the needs of the workplace through a combination of supply chain, quality, lean, leadership, and supervisory skills. Graduates of this program are prepared to provide leadership in manufacturing and service industries. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Plan the operations of a business across functional areas.
- Organize resources to achieve the goals of the organization
- Direct individuals and/or processes to meet organizational goals.
- Control business processes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

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- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/manufacturing-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

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Catalog No.	Class Title	Credit(s)
Term 1		
10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10623118	Lean Manufacturing Overview*	3
10196189	Team Building and Problem Solving*	3
10623123	Blueprint Reading and Metrology* OR 10606206 Tolerancing and GD&T*	3
10116109	Career Planning and Networking*	1
		12
Term 2		
10182131	Supply Chain Management*	3
10196188	Project Management*	3
10801136	English Composition 1	3
10809144	Macroeconomics	3
10809198	Introduction to Psychology	3
		15
Term 3		
10804189	Introductory Statistics	3
10196107	Principles of Management*	3
10101155	Accounting for Professionals*	3
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
		17
Term 4		
10196193	Human Resource Management*	3
10449114	Safety in the Workplace*	3
10182110	Negotiations*	3
10623193	ISO 9001 Internal Auditor*	3
10196129	Portfolio Assessment-Manufacturing Management*	1
10801190	Speech OR 10801196 Oral/Interpersonal Communication	3
		16
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING FOR PROFESSIONALS...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

BLUEPRINT READING AND METROLOGY...provides knowledge and skill in the understanding of quality measurement, quality measurement devices and their proper application. Quality measurement topics include precision, accuracy, control of variation, gage R/R, calibration techniques and blueprint/specification reading.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HUMAN RESOURCE MANAGEMENT...applies the skills/tools necessary to effectively value and apply employees' abilities and needs to organization goals. Learners will demonstrate the application of the supervisor's role in contemporary human resources management, impacts of EEOC, writing job descriptions, recruitment, selection, conducting job interviews, orientation, developing policies/procedures, training, performance management, employee counseling/development, and effective use of compensation and benefit strategies.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

ISO 9001 INTERNAL AUDITOR...is designed to introduce participants to the current ISO 9001 standard. The course is structured to provide a detailed review of the standards, how to document procedures, and how to perform audits. Students will practice preparation for and conducting audits in a local business. Successful completion of this course qualifies the student to receive the ISO 9001 Internal Auditor certificate (19-623-8).

LEAN MANUFACTURING OVERVIEW...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POKA YOKO, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. COREQUISITE: 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NEGOTIATIONS...is an exciting introduction into negotiations where the following topics will be discussed: nature of negotiations, framing, strategy, integrated negotiations, distributed negotiations, communication, perception, bias, leverage, ethics, global negotiations, and managing difficult negotiations. It is a must course for students desiring to exceed in business.

PORTFOLIO ASSESSMENT-MANUFACTURING MANAGEMENT...prepares the student to identify what they have learned throughout the program, write career goals, re-examine their resume, research and collect project samples of their achievements, and analyze their achievements within the college core abilities.

PRINCIPLES OF MANAGEMENT...will enable students to develop short and long range plans to effectively accomplish organizational goals. Through the use of terminology, exercises, and case studies, students will be able to give a critical appraisal of real life situations involving organizing, staffing, and motivating others. The student will also learn tools to aid in problem solving, value in diversity, and coping with change.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

SPEECH...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. Discuss reading academic course support with your Counselor.

SUPPLY CHAIN MANAGEMENT...has been developed to provide a basic understanding of the planning and control of materials into, through, and out of organizations. In addition, those who want to become certified by APICS need a fundamentals course to learn about the material planning and control system. This course will provide a basis for further study leading to certification.

TEAMBUILDING AND PROBLEM SOLVING...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, developing alternative solutions, solution implementation, and evaluation.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

ABOUT THE PROGRAM

Mechanical design and engineering technicians help develop and test products, calculate strength and cost of materials, make drawings to scale, and work on prototypes and product improvement. Students work on acquiring high-level drafting skills and utilize a variety of Computer-Aided Drafting (CAD) software. They learn to construct and revise engineering working drawings and tooling drawings; research and apply information for parts and materials; and specify appropriate tolerances, materials, and other engineering data. Mechanical designers work on teams that focus on continuous improvement, Six Sigma initiatives, and lean manufacturing efforts.

PROGRAM OUTCOMES

- Prepare detail and assembly drawings for documentation of mechanical components and products.
- Create CAD geometry, parts and assemblies.
- Design mechanical components and products.
- Analyze mechanical engineering problems.
- Select purchased parts.

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This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

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CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10606201	2D Design-AutoCAD*	2
10606208	3D Design-SolidWorks 1*	2
31442385	Weld Print 1-Print Fundamentals*	1
10606100	2D Design Standards*	1
10606204	Manufacturing Processes and Materials*	2
10606202	Product Design & Rapid Prototyping*	2
10804113	College Technical Math 1A OR 10804198 Calculus 1** (4 cr)	3
10801196	Oral/Interpersonal Communication	3
		16
Term 2		
10606206	Tolerancing and GD&T*	3
10606234	Statics*	2
10620212	Design Applications*	2
10606209	3D Design-SolidWorks 2-Part Drawings*	2
10606210	3D Design-SolidWorks 3-Assembly & Drawings*	2
10103121	Excel - Level 1*	1
10806154	General Physics 1	4
		16
Term 3		
10606218	Kinematics*	3
10606219	Strength of Materials*	3
10606217	Component Design*	2
10606220	Reverse Engineering*	2
10606211	3D Design-SolidWorks 4-Advanced*	2
10620130	Mechanical Drive Systems	3
		15
Term 4		
10606290	Design for Manufacture and Assembly (DFMA)*	2
10606298	Engineering Technology Applications*	4
10801136	English Composition 1	3
10809196	Introduction to Sociology OR 10809144 Macroeconomics OR 10809143 Microeconomics	3
10809198	Introduction to Psychology	3
		15
		TOTAL 62

*CBE delivery only

**Calculus 1 is designed for students planning to transition to a 4-year college following Lakeshore program completion.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

2D DESIGN STANDARDS...develops skills for creating engineering designs through the application of standards and procedures. Principles covered include view selection, orthographic projection, section and auxiliary views, and their utilization in working drawings. These skills will be reinforced using AutoCAD as the main software platform.

2D DESIGN-AUTOCAD...provides the learner with the best practice skills to utilize AutoCAD drawing editor, viewing commands; apply coordinate entry methods, AutoCAD file commands; utilize draw commands, modify commands; create and edit text, prints & plots; apply geometric construction to solve a drawing problem; utilize selection sets, duplicating modify commands, layers & objects properties, blocks; apply principles of orthographic and multi view projection.

3D DESIGN-SOLIDWORKS 1...introduces the students to the concepts and commands of parametric solid modeling. Students create sketches and add relationships to the sketch segments, extrude the sketches to create models, and add features such as fillets, cut extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of the parametric solid models and best practices to ensure robust engineering designs.

3D DESIGN-SOLIDWORKS 2-PART DRAWINGS...introduces students to the process of creating 2D documentation from the 3D models and adding details to those drawings. This includes projection views, section views, auxiliary views, and annotation applications. PREREQUISITE: 10606108 SolidWorks1-Parametric Modeling or COREQUISITE: 10606208 3D Design-SolidWorks 1

3D DESIGN-SOLIDWORKS 3-ASSEMBLY & DRAWINGS...continues the path of 2D documentation in SolidWorks with an emphasis on assemblies and drawings. The students will learn assembly creation (top-down vs bottom-up), adding fasteners, drawing creation, BOM creation, cut lists and other best practices. PREREQUISITE: 10606109 SolidWorks 2-Modeling/Details for Designers or COREQUISITE: 10606209 3D Design-SolidWorks 2-Part Drawings

3D DESIGN-SOLIDWORKS 4-ADVANCED...introduces students to advanced modeling and design techniques for part design in sheet metal, weldments, castings, and mold design. PREREQUISITE: 10606110 SolidWorks 3-Working Drawings for Designers or COREQUISITE: 10606210 3D Design-SolidWorks 3-Assembly & Drawings

COLLEGE TECHNICAL MATHEMATICS 1A...prepares student to solve linear, quadratic, and relational equations; graph; formula rearrangement; solve systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the application of skills to technical problems. Discuss math academic course support with your Counselor.

COMPONENT DESIGN...introduces the student to the various components found on machinery, including shafts, bearings, power transmissions, gears, and the selection of standard machine elements from manufacturers' catalogs, and the use of SolidWorks to understand the assembly of those components in your design. PREREQUISITE: 10606110 SolidWorks 3-Working Drawings for Designers or COREQUISITE: 10606210 3D Design-SolidWorks 3-Assembly & Drawings

DESIGN APPLICATIONS...reinforces basic design principles and best practices. Students will learn basic design principles of CNC, fabrication and fixtures then subject those designs to the "professionals" for a design review/approval process. PREREQUISITE: 10606108 SolidWorks 1-Parametric Modeling or COREQUISITE: 10606208 3D Design-SolidWorks 1

DESIGN FOR MANUFACTURE AND ASSEMBLY (DFMA)...introduces learners to and will apply the concept of Design for Manufacturing and Assembly (DFMA) to an industrial assembly. DFMA is an engineering methodology that focuses on reducing time-to-market and the total production cost by prioritizing both the ease of manufacture for the product's parts and the simplified assembly of those parts into the final product. PREREQS: 10606211 3D Design-SolidWorks 4-Adv or 10606111 SolidWorks-Adv Modeling and 10606218 Kinematics and 10606219 Strength of Materials and 10606210 3D Design-SolidWorks 3-Assembly & Drawings and 10606202 Product Design & Rapid Prototyping

ENGINEERING TECHNOLOGY APPLICATIONS...applies the knowledge and skills gained throughout the Mechanical Design and Engineering Technology program. This is a capstone course in which the learner will create a project portfolio that will showcase a full set of working drawings to produce an industrial assembly and all the design calculations to ensure function and lifecycle requirements. The learner will create a physical, working prototype in the MDET Fab Lab as part of this capstone project. PREREQUISITES: 10606211 3D Design-SolidWorks 4-Adv or 10606111 SolidWorks-Adv Modeling and 10606218 Kinematics and 10606219 Strength of Materials and 10606210 3D Design-SolidWorks 3-Assembly & Drawings and 10606202 Product Design & Rapid Prototyping

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

GENERAL PHYSICS 1...presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversions and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves. PREREQUISITE: 10804113 College Tech Math 1A. Discuss math academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

KINEMATICS...equips students with the essential skills to identify the motions needed to achieve design objectives. SolidWorks will be utilized for calculating these motions. PREREQUISITE: 10804113 College Tech Math 1A or 10804115 College Technical Math 1 or 10804198 Calculus 1 or 10804118 Intermediate Algebra with Apps

MANUFACTURING PROCESSES AND MATERIALS...introduces the learner to various manufacturing processes (casting/molding, injection molding, sheet metal forming/die cutting); machining processes (milling, turning, and drilling); assembly processes (welding, fasteners); and advanced manufacturing technology (3D printing, laser sintering, laser cutting). The learner will also learn how to properly use and read dial and digital micrometers; dial, digital and vernier calipers.

MECHANICAL DRIVE SYSTEMS...prepares the learner to use tools and fasteners safely; identify belt and chain drive components; install and adjust belt and chain drives; apply bearing and lubrication information; perform coupling alignment using straight edge, feeler gauge, and dial indicator and laser methods; identify various gear drives; calculate gear ratios; and analyze first-, second-, and third-class levers.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PRODUCT DESIGN AND RAPID PROTOTYPING...introduces students to product design and rapid prototyping methods. Students will discover the product design process, then utilizing the various equipment available in the MDET program's Fab Lab, produce an actual product they designed. PREREQUISITE: 10606108 SolidWorks 1-Parametric Modeling or COREQUISITE: 10606208 3D Design-SolidWorks 1

REVERSE ENGINEERING...prepares students to take an existing item, measure it, design it, and reproduce that part in our MDET Fab Lab. Students will also be introduced to a reverse engineering scanner system and software, used for reverse engineering applications in the SolidWorks 3D modeling environment. PREREQUISITE: 10606102 Product Design & Rapid Prototyping or COREQUISITE: 10606202 Product Design & Rapid Prototyping

STATICS...introduces the forces on and in structures that are at rest utilizing SolidWorks. Forces, vectors, resultants, moments, couples, equilibrium, free-body diagrams, friction, centroids, and centers of gravity, and moments of inertia are covered. PREREQUISITE: 10804113 College Tech Math 1A or 10804115 College Technical Math 1 or 10804198 Calculus 1 or 10804118 Intermediate Algebra with Apps

STRENGTH OF MATERIALS...provides the learner with the skills to identify and calculate centers of gravity, moments of inertia, and stresses induced in force-bearing elements for the purpose of sizing the material in that element, specifically studying shear, axial, bending, torsional, and combined stresses. PREREQUISITE: 10606234 Statics or 10606134 Statics

TOLERANCING AND GD&T...provides the learner with the skills to apply and interpret tolerancing standards for both rectangular and geometric tolerancing (ASME 14.5M-2018) on part drawings, including form, profile, orientation, runout, and positional tolerances. Additionally, the learning will design mating parts and tolerance stack ups with and without GD&T.

WELD PRINT 1-PRINT FUNDAMENTALS...prepares the learner to interpret manufacturing drawing by applying orthographic projection principles, by recognizing types of lines used in print reading and how manufacturing prints are dimensioned. Develop print reading strategies by locating the bill of materials, title blocks, and revision blocks. Learners will be introduced to the AWS welding symbols and how they relate to manufacturing drawing.

Program Number 31-509-1
Technical Diploma • Two Terms (30 weeks)

ABOUT THE PROGRAM

The Medical Assistant program prepares individuals to assist providers in their offices or other medical settings. Medical assistants perform a wide range of duties. The medical assistant is responsible for medical and surgical asepsis, obtaining vital signs, assisting providers with examinations and surgery, performing ECGs, and administering medications. The business/administrative duties include patient reception, appointment scheduling, record keeping, insurance processing, electronic communication and transcription and microcomputer applications. Laboratory functions include specimen collection and processing and performance of CLIA waived laboratory tests. If you want a career that places you at the heart of healthcare, medical assisting may be just what you are looking for. This is a blended program (online and face-to-face components).

PROGRAM OUTCOMES

- Perform medical office administrative functions.
- Provide patient care in accordance with regulations, policies, laws, and patient rights.
- Perform medical laboratory procedures.
- Demonstrate professionalism in a health care setting.
- Demonstrate safety and emergency practices in a health care setting.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

- Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.
- Medical Assistant graduates may bridge into the evening Licensed Practical Nursing program (LPN) by becoming a Certified Medical Assistant, having 3,000 hours worked in the field, and meeting all pre-reqs for the PN program.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/medical-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- The Medical Assistant program is accredited by the Accrediting Bureau of Health Education Schools (ABHES).
- CPR must be completed before the start of Practicum and must be current throughout.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

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Catalog No.	Class Title	Credit(s)
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Term 1

31501309	Medical Terminology Part 1*	1
31501310	Medical Terminology Part 2*	1
31501311	Medical Terminology Part 3*	1
31501104	Contemporary Healthcare Practices	2
31501307	Digital Literacy for Healthcare	2
31509301	Medical Assistant Administrative Procedures	2
31509302	Human Body in Health & Disease	3
31509303	Medical Assistant Laboratory Procedures 1	2
31509304	Medical Assistant Clinical Procedures 1	4
		18

Term 2

10501102	Health Insurance and Reimbursement OR 31509307 Medical Office Insurance & Finance (2 cr)	3
31509305	Medical Assistant Laboratory Procedures 2**	2
31509306	Medical Assistant Clinical Procedures 2**	3
31509308	Pharmacology for Allied Health**	2
31509309	Medical Law, Ethics & Professionalism**	2
31509310	Medical Assistant Practicum**	3
		15

TOTAL 33

*CBE delivery only

**8 week classes

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

CONTEMPORARY HEALTHCARE PRACTICES...an introduction to contemporary healthcare practices for students interested in a career serving diverse healthcare communities. Learners explore the essential skills required for equitable and inclusive person-centered interactions. Learners examine various health communities, mindful practices, professionalism, problem solving, and patient confidentiality.

DIGITAL LITERACY FOR HEALTHCARE...focuses on 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.

HUMAN BODY IN HEALTH & DISEASE...students learn to recognize human body structure and function in health and disease states. Students explore the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of diseases commonly diagnosed and treated in the medical office setting. COREQUISITE: 31501302 or 10501101 Medical Terminology or 31501309 Med Term Part 1 and 31501310 Med Term Part 2 and 31501311 Med Term Part 3 and Reading placement assessment equivalent

MEDICAL ASSISTANT ADMINISTRATIVE PROCEDURES...introduces medical assistant students to office management, business administration, and the electronic medical record (EMR) in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. CONDITION: Reading placement assessment and 315091 Medical Assistant program requirements met and COREQUISITE: 31501307 or 10501107 Digital Literacy for Healthcare

MEDICAL ASSISTANT CLINICAL PROCEDURES 1...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. Learner explores communication principles and psychology theories related to patient care. COREQUISITE: 31509302 Human Body in Hlth & Disease and 31509303 Med Assist Lab Proc 1 & CONDITION: Reading placement assessment and 315091 Med Assist program requirements

MEDICAL ASSISTANT CLINICAL PROCEDURES 2...prepares medical assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, performing an electrocardiogram, assisting with respiratory testing, coaching patients, and assisting with emergency situations in an ambulatory care setting. Students learn preventive care and principles of nutrition. PREREQUISITES: 31509304 Med Asst Clin Proc 1, 31509303 Med Asst Lab Proc 1, 31501309 Med Term Pt 1, 31501310 Med Term Pt 2, 31501311 Med Term Pt 3, & 31501307 Dig Lit; COREQS: 31509305 Med Asst Lab Proc 2, 31509308 Pharm Allied Hlth, & 31509310 Med Asst Prac

MEDICAL ASSISTANT LAB PROCEDURES 1...introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform Clinical Laboratory Improvement Amendment (CLIA) waived routine laboratory procedures commonly performed in the ambulatory care setting. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology and urinalysis testing. COREQUISITE: 31509304 Medical Assistant Clinical Procedures 1 and CONDITION: Reading placement assessment and 315091 Medical Assistant program requirements met

MEDICAL ASSISTANT LAB PROCEDURES 2...prepares students to perform phlebotomy and Clinical Laboratory Improvement Amendment (CLIA) waived hematology, chemistry, immunology and laboratory procedures commonly performed by medical assistants in the ambulatory care setting. PREREQUISITES: 31509303 Med Asst Lab Proc 1, 31509304 Med Asst Clin Proc 1, 31501307 Dig Lit Hlth, 31501309 Med Term Pt1, 31501310 Med Term Pt2, & 31501311 Med Term Pt3 and COREQUISITES: 31509306 Med Asst Clin Proc 2, 31509308 Pharm for Allied Hlth, & 31509310 Med Asst Pract

MEDICAL ASSISTANT PRACTICUM...requires medical assistant students to integrate and apply knowledge and skills from all previous medical assistant courses in acute ambulatory health 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 is a supervised, unpaid, clinical experience. This 216-hour clinical experience begins 3 days/week mid-semester and may extend beyond the date of graduation. Student's CPR and First Aid certification must be current throughout the entire Practicum. All other program courses must be passed with grade C or better to enroll in this course. COND: 315091 Med Ast; PRERQ: 31509301 MA-Adm Prc, 31501104 Cont Healthcare Practices, 31509302 Human Body Hlth Disease; CORQ: 31509306 MA Clin Proc 2, 31509305 MA Lab Proc 2, 31509308 Phrm-Allied Hlth, 10501102 Hlth Ins/Reimb, 31509309 Med/Ethcs/Prof

MEDICAL LAW, ETHICS & PROFESSIONALISM...prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of ambulatory healthcare, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity. CONDITION: 315091 Medical Assistant program requirements met

MEDICAL OFFICE INSURANCE & FINANCE...introduces learners to health insurance and finance in the medical office. Students learn to perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Learners use medical coding and managed care terminology to perform insurance-related duties. COREQUISITES: 31501309 Med Term Pt 1, 31501310 Med Term Pt 2, & 31501311 Med Term Pt 1, or 10501101 or 10806105 Med Term, & 31509302 Human Body in Health & Disease, & 10501107 Computing for Healthcare and CONDITION: 315091 Medical Assistant

MEDICAL TERMINOLOGY PART 1...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of integumentary, respiratory, and urinary systems, as well as systemic and surgical terminology.

MEDICAL TERMINOLOGY PART 2...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of reproductive systems, cardiovascular system, and the lymphatic and immune systems as well as systemic and surgical terminology. COREQUISITE: 31501309 Medical Terminology Part 1

MEDICAL TERMINOLOGY PART 3...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of digestive, skeletal, muscular, sensory, nervous, and endocrine as well as systemic and surgical terminology. COREQUISITE: 31501310 Medical Terminology Part 2

PHARMACOLOGY FOR ALLIED HEALTH...introduces students to medication classification, basic pharmacology principles, and supplements. Students apply basic pharmacodynamics to identify common medications and calculate dosages in preparation for medication administration. COREQUISITES: 31509310 Medical Assistant Practicum and 31509305 Medical Assistant Lab Procedures 2 and PREREQUISITE: 31509302 Human Body in Health/Disease

Program Number 31-530-3
Technical Diploma • Two Terms

ABOUT THE PROGRAM

The Medical Coder program allows students to work at their own pace to prepare students for employment as entry level coding specialists in health care facilities such as hospitals, clinics, physician practice groups, surgery centers, long-term care facilities, and home healthcare agencies. Medical coders are also employed in consulting firms, coding and billing services, insurance companies, governmental agencies, and computer software companies. The medical coder reviews medical documentation provided by physicians and other health care providers and translates this into numerical codes. The coders assign and sequence diagnostic and procedural codes using universally recognized coding systems. Several uses of coded data are for payment of health care claims, statistics, and medical research.

PROGRAM OUTCOMES

- Assign diagnostic and procedure codes using the ICD coding system.
- Assign procedure codes using the HCPCS/CPT coding system.
- Adhere to security/privacy/confidentiality policies.
- Use computers to process information.
- Support data collection and reimbursement system.
- Communicate in a professional manner.
- Model professional behaviors, ethics, and appearance.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/medical-coder>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

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Catalog No.	Class Title	Credit(s)
Term 1		
31501309	Medical Terminology Part 1	1
31501310	Medical Terminology Part 2	1
31501311	Medical Terminology Part 3	1
31501307	Digital Literacy for Healthcare	2
10530182	Human Diseases for Health Professions	3
10806189	Basic Anatomy	3
10530141	Introduction to the Healthcare System	1
10530142	Introduction to the Medical Record	1
10530143	Medical Record Processes	1
10103101	Access - Level 1	1
		15

Term 2		
10530133	ICD Diagnosis Coding Part 1	1
10530134	ICD Diagnosis Coding Part 2	1
10530135	ICD Diagnosis Coding Part 3	1
10530136	Introduction to PCS Coding	1
10530137	Application of PCS Coding	1
10530130	CPT Coding Part 1	1
10530131	CPT Coding Part 2	1
10530132	CPT Coding Part 3	1
10530138	Healthcare Revenue Mgmt: Payment Methodologies	1
10530139	Healthcare Revenue Mgmt: Revenue Compliance	1
10530140	Healthcare Revenue Mgmt: Revenue Cycle	1
10530188	Intermediate Coding Part 1	1
10530189	Intermediate Coding Part 2	1
10530190	Intermediate Coding Part 3	1
10530147	HIM/Coding Practicum Part 1	1
10530148	HIM/Coding Practicum Part 2	1
		16

TOTAL 31

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCESS - LEVEL 1...introduces students to the process of creating a database, building and populating a table, establishing table relationships, and creating queries, forms, and reports.

APPLICATION OF PCS CODING...prepares the learner to assign ICD-PCS procedure codes as they apply to all of the body systems and miscellaneous procedures. COREQUISITE: 10530136 Introduction to PCS Coding

BASIC ANATOMY...examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems. Discuss reading academic course support with your Counselor.

CPT CODING PART 1...prepares the learner to apply the rules of CPT Medical Coding as they relate to the format and conventions, evaluation and management, medicine, and ancillary services (lab/x-ray) and HCSPS. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

CPT CODING PART 2...prepares the learner to apply the rules of CPT Medical Coding as they relate to digestive, urinary, reproductive, neurologic, and sensory systems. COREQUISITE: 10530130 CPT Coding Part 1

CPT CODING PART 3...prepares the learner to apply the rules of CPT Medical Coding as they relate to the integumentary, musculoskeletal, circulator, respiratory systems, and anesthesia. COREQUISITE: 10530131 CPT Coding Part 2

DIGITAL LITERACY FOR HEALTHCARE...focuses on 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.

HC REV MANAGEMENT: PAYMENT METHODOLOGIES...prepares the learner to compare government and non-government payers and payment methodologies.

HC REV MANAGEMENT: REVENUE COMPLIANCE...prepares the learner to apply various payment methodologies while ensuring compliance with regulations and future trends. COREQUISITE: 10530138 HC Revenue Mgmt Payment Methodologies

HC REV MANAGEMENT: REVENUE CYCLE...prepares the learner to conduct activities of and manage the revenue cycle. COREQUISITE: 10530139 HC Revenue Mgmt Revenue Compliance

HIM/CODING PRACTICUM PART 1...prepares the learner to evaluate the Patient Registration, Medical Coding, and Medical Claims process in a clinical setting. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

HIM/CODING PRACTICUM PART 2...prepares the learner to complete a Resume Preparation, Interview Process and Portfolio Project. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

HUMAN DISEASES FOR HEALTH PROFESSIONALS...prepares learners to interpret clinical documentation that they will encounter in a variety of healthcare settings. Emphasis is placed on understanding the common disorders and diseases of each body system to include the etiology (cause), signs and symptoms, diagnostic tests and results, and medical treatments and surgical procedures. COREQUISITES: 10501101 Medical Terminology or 10501117 Medical Terminology Part 3 or 31501311 Medical Terminology Part 3

ICD DIAGNOSIS CODING PART 1...prepares the learner to examine the rules of ICD classification systems and assign ICD diagnosis codes to infectious, endocrine, metabolic, digestive, respiratory systems, injuries, poisonings, and signs/symptoms. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

ICD DIAGNOSIS CODING PART 2...prepares the learner to assign ICD diagnosis codes as they relate to neoplasms, nervous, eye, ear, genitourinary, pregnancy, perinatal, and congenital disorders. COREQUISITE: 10530133 ICD Diagnosis Coding Part 1

ICD DIAGNOSIS CODING PART 3...prepares the learner to assign ICD diagnosis codes as they relate to blood, circulatory, behavioral/mental health, skin, musculoskeletal diseases, and miscellaneous factors influencing health care. COREQUISITE: 10530133 ICD Diagnosis Coding Part 1

INTERMEDIATE CODING PART 1...prepares the learner to utilize automated coding systems to complete entry level coding scenarios. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

INTERMEDIATE CODING PART 2...prepares the learner to utilize automated coding systems to complete intermediate coding scenarios. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

INTERMEDIATE CODING PART 3...prepares the learner to utilize automated coding systems to complete advanced coding scenarios. COREQUISITES: 10530131 CPT Coding Part 2, 10530132 CPT Coding Part 3, 10530134 ICD Diagnosis Coding Part 2, 10530135 ICD Diagnosis Coding Part 3, 10530137 Application of PCS Coding

INTRODUCTION TO PCS CODING...prepares the learner to examine the rules of the ICD-PCS procedure coding classification system and assign codes that describe the root operation of the PCS classification system. PREREQUISITES: 10501117 or 31501311 Medical Terminology Part 3, 10530182 Human Diseases for Health Professions, and 10806189 Basic Anatomy

INTRODUCTION TO THE HC SYSTEM...prepares the learner to evaluate various influences on the healthcare system such as external forces, types of organizations, and roles and responsibilities of healthcare providers. COREQUISITE: 10501107 or 31501307 Digital Literacy for Healthcare

INTRODUCTION TO THE MEDICAL RECORD...prepares the learner to demonstrate professional ethical standards while examining data collection tools and information governance. COREQUISITE: 10530141 Intro to the Healthcare System

MEDICAL RECORDS PROCESSES...prepares the learner to perform medical record processes and examine data sources while maintaining quality standards. COREQUISITE: 10530142 Intro to the Medical Record

MEDICAL TERMINOLOGY PART 1...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of integumentary, respiratory, and urinary systems, as well as systemic and surgical terminology.

MEDICAL TERMINOLOGY PART 2...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of reproductive systems, cardiovascular system, and the lymphatic and immune systems as well as systemic and surgical terminology. COREQUISITE: 31501309 Medical Terminology Part 1

MEDICAL TERMINOLOGY PART 3...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of digestive, skeletal, muscular, sensory, nervous, and endocrine as well as systemic and surgical terminology. COREQUISITE: 31501310 Medical Terminology Part 2

**Program Number 30-543-1
Technical Diploma • One Term**

ABOUT THE PROGRAM

The Nursing Assistant program prepares students for potential employment as nursing assistants. The program also prepares students for other health-related programs. 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.

PROGRAM OUTCOMES

- Communicate effectively with clients, family and co-workers.
- Protect rights of clients.
- Demonstrate ethical and legal responsibilities.
- Work cooperatively in a team environment.
- Provide holistic, safe care to diverse populations.
- Demonstrate reporting and documentation.
- Assist clients with rehabilitation and restorative care.
- Provide safe care for clients with acute and chronic health conditions.
- Complete educational requirements for the WI NA competency evaluation.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/nursing-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

SPECIAL NOTE

- The Nursing Assistant program meets state and federal requirements for training and testing. Upon completion, the graduate will be eligible to sit for the State of Wisconsin Nursing Assistant Competency Examination. The Nursing Assistant program is open to eligible individuals including high school students who are at least 16 years of age or older. This program is not eligible for financial aid.
- Lakeshore's Nursing Assistant program courses prepare students to obtain state certification to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
	Term 1	
30543300	Nursing Assistant	2

TOTAL 2

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

NURSING ASSISTANT...is designed to prepare learners for employment in home care agencies, nursing homes, and hospitals. Learners are supervised by qualified nurses in classroom, lab, and clinical areas. Classes are presented by means of online and face to face instruction. Lab and clinical activities are scheduled at designated locations in Manitowoc and Sheboygan counties. CONDITION: 305431 Nursing Assistant Admission requirements met

Program Number 10-543-1
Associate Degree in Applied Science • Seven Terms
ABOUT THE PROGRAM

If you're ill or injured, it's comforting to know you're in the care of highly skilled, well-educated healthcare professionals. At the core of that healthcare team are registered nurses whose mission is to assess and care for the ill and injured as well as to maintain health and prevent illness of individuals across the lifespan. If you work well under pressure; like math, science, communications, and problem solving; are independent; and have a strong desire to work with and help people—success may be yours as a registered nurse.

PROGRAM OUTCOMES

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing standards.
- Communicate comprehensive information using multiple sources in nursing practice.
- Integrate theoretical knowledge to support decision making.
- Integrate the nursing process into patient care across diverse population.
- Function as a healthcare team member to provide safe and effective care.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores. Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/nursing-associate-degree>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- High school Chemistry may fulfill General Chemistry requirement.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Lakeshore's Nursing—Associate Degree program is accredited by the Accreditation Commission for Education in Nursing, 3390 Peachtree Road N.E., Suite 1400, Atlanta, GA 30326. 404-975-5000 Fax 404-975-5020. www.acenursing.org

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10806177	General Anatomy & Physiology	4
10809198	Introduction to Psychology	3
10801136	English Composition 1	3
		10
Term 2		
10806179	Advanced Anatomy & Physiology	4
10801196	Oral/Interpersonal Communications	3
10809188	Developmental Psychology	3
		10
Term 3		
10806197	Microbiology	4
10809172	Introduction to Diversity Studies OR 10809196 Introduction to Sociology	3
		7
Term 4		
10543101	Nursing Fundamentals	2
10543102	Nursing Skills	3
10543103	Nursing Pharmacology	2
10543104	Nursing Intro Clinical Practice	2
		9
Term 5		
10543105	Nursing Health Alterations	3
10543106	Nursing Health Promotion	3
10543107	Nursing Clinical Care Across the Lifespan	2
10543108	Intro to Clinical Care Management	2
		10
Term 6		
10543109	Nursing Complex Health Alterations 1	3
10543110	Mental Health & Community Concepts	2
10543111	Nursing Intermediate Clinical Practice	3
10543112	Nursing Advanced Skills	1
		9
Term 7		
10543113	Nursing Complex Health Alterations 2	3
10543114	Nursing Management & Professional Concepts	2
10543115	Nursing Advanced Clinical Practice	3
10543116	Nursing Clinical Transition	2
		10
		TOTAL 65

Recommended Support

10543124	Virtual Clinical for 2nd Semester Nursing	1
10543125	Virtual Clinical for 3rd Semester Nursing	1

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

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. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuro-muscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course. **PREREQUISITE:** 10806177 General Anatomy & Physiology or equivalent. Discuss reading academic course support with your Counselor.

DEVELOPMENTAL PSYCHOLOGY...introduces the student to 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. Discuss reading academic course support with your Counselor.

ENGLISH COMPOSITION 1...designed 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. Discuss reading and writing academic course support with Counselor.

GENERAL ANATOMY AND PHYSIOLOGY...examines basic concepts of human anatomy & physiology as relate to health sciences. Using a body systems approach, course emphasizes the interrelationships between structure & function at the gross and microscopic levels of organization of the entire human body. Intended to prepare health care professionals who apply basic concepts of whole body anatomy & physiology to informed decision-making and professional communication w/colleagues and patients. **PREREQUISITE:** 10806134 General Chemistry or equivalent. Discuss reading academic course support with your Counselor.

INTRO TO CLINICAL CARE MANAGEMENT...applies nursing concepts and therapeutic nursing interventions to groups of clients across the lifespan. It also provides an introduction to leadership, management, and teambuilding. Course requires a minimum grade of "C" or better. **CONDITION:** 105431 Nursing - Associate Degree enrollment requirements met and **COREQUISITE:** 10543105 Nursing Health Alterations

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. Discuss reading academic course support with your Counselor

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

MENTAL HEALTH & COMMUNITY CONCEPTS...will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed across the lifespan. 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, and economically diverse individuals and groups. Student must have completed all second semester courses. Course requires minimum grade of "C" or better. **PREREQ:** 10543105 Nrsrg Hlth Alt, 10543106 Nrsrg Hlth Promo, 10543107 Clin Care Lifespan, 10543108 Intro Clin Care Mgt, and **CONDITION:** 105431 Nursing-Assoc Degree enrllmnt req met

MICROBIOLOGY...introduces learner to examine microbial structure, metabolism, genetics, growth and relationship between humans and microorganisms. Addresses disease production, epidemiology, host defense mechanisms and the medical impact of microbes. Examines role of microbes in the environment, industry, and biotechnology. **PREREQUISITE:** 10806177 General Anatomy and Physiology or equivalent. Discuss reading academic course support with your Counselor.

NURSING ADVANCED CLINICAL PRACTICE...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. Student must have completed third semester courses. Course requires a minimum grade of "C" or better. **COREQUISITE:** 10543113 Nursing Complex Health Alterations II and **CONDITION:** 105431 Nursing - Associate Degree enrollment requirements met

NURSING ADVANCED SKILLS...focuses on the development of advanced clinical skills across the lifespan. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion. This course requires a minimum grade of "C" or better. **PREREQ:** 10543105 Nrsrg Hlth Alt, 10543106 Nrsrg Hlth Promotion, 10543107 Clin Care Across Lifespan, 10543108 Intro Clin Care Mgmt, and **CONDITION:** 105431 Nursing-Assoc Degree enrollment requirements met

NURSING CLINICAL CARE ACROSS THE LIFESPAN...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. Student must have completed all first semester courses. Course requires a minimum grade "C" or better. **CONDITION:** 105431 Nursing-Assoc Degree enrollment reqs met and **COREQ:** 10543106 Nursing Health Prom

NURSING CLINICAL TRANSITION...integrates all knowledge learned in the previous courses in transitioning to the role of the graduate nurse. The course promotes relatively independent clinical decisions, delegation, and works collaboratively with others to achieve client and organizational outcomes. Continued professional development is fostered. Student must have completed all third semester courses. Course requires a minimum grade of "C" or better. **COREQUISITE:** 10543115 Nrsrg Advanced Clinical Practice and 10543114 Nursing Management Concepts and 10543113 Nursing Complex Health Alterations II and **CONDITION:** 105431 Nursing - Associate Degree enrollment requirements met

NURSING COMPLEX HEALTH ALTERATIONS I...prepares the learner to provide and evaluate care for patients across the lifespan with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as patients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. Student must have completed all second semester courses. Course requires a minimum grade of "C" or better. **PREREQ:** 10543105 Nrsrg Hlth Alt, 10543106 Nrsrg Hlth Promotion, 10543107 Clin Care Across Lifespan, 10543108 Intro Clin Care Mgmt and **CONDITION:** 105431 Nursing-Assoc Degree enrollment req met

NURSING COMPLEX HEALTH ALTERATIONS II...prepares the learner to provide and evaluate care for patients across the lifespan with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary, reproductive systems and shock-burns and trauma. The learner will also focus on management of care for patients with high-risk perinatal conditions and high-risk newborns. This course requires a minimum grade of "C" or better. **PREREQUISITE:** 10543109 Nrsrg Complex Hlth Alt 1 and 10543112 Nrsrg Adv Skills and 10543110 Nrsrg Mental Hlth Comm Concepts and 10543111Nrsrg Intern Clin Prac and **CONDITION:** 105431 Nursing-Associate Degree enrollment requirements met

NURSING FUNDAMENTALS...focuses on basic nursing concepts to provide evidenced-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. This course requires a minimum grade of "C" or better. **COREQ:** 10806177 or 10806177OL or 10806177SA Gen Anatomy and Physiology, 10801195 Written Comm or 10801195OL Written Comm-Onl and **CONDITION:** 105431 Nursing-Assc Degree

NURSING HEALTH ALTERATIONS...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 evidence-based nursing interventions. It will also introduce concepts of leadership and management. Course requires a minimum grade of "C" or better. **PREREQUISITE:** 10543101 Nrsrg Fund and 10543102 Nrsrg Skills and 10543103 Nrsrg Pharm and 10543104 Nrsrg: Intro to Clin Practice and **CONDITION:** 105431 Nursing-Associate Degree enrollment requirements met

NURSING HEALTH PROMOTION...focuses on topics related to health promotion in for individuals and families throughout the 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. Course requires a minimum grade of "C" or better. **PREREQ:** 10543101 Nrsrg Fundamentals, 10543102 Nrsrg Skills, 10543103 Nrsrg Pharmacology, 10543104 Nrsrg Intro Clinical Prac, and **CONDITION:** 105431 Nrsrg-Associate Degree enrollment requirements met

NURSING INTERMEDIATE CLINICAL PRACTICE...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 across the lifespan and priorities. Using the nursing process students will experience adapting nursing practice to meet the needs of clients with diverse needs and backgrounds. Student must have completed all second semester courses. Course requires a minimum grade of "C" or better. **COREQUISITE:** 10543112 Nursing Advanced Skills and 10543109 Nursing Complex Health Alterations I and 10543110 Nursing Mental Health Community Concepts and **CONDITION:** 105431 Nursing - Associate Degree enrollment requirements met

NURSING INTRO CLINICAL PRACTICE...is an introductory clinical course that 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. Student needs to be enrolled in the Nursing program. Course requires a minimum grade of "C" or better. **CONDITION:** 105431 Nursing-Associate Degree Enrollment req met and **COREQUISITE:** 10543101 Nursing Fundamentals and 10543102 Nursing Skills and 10543103 Nursing Pharmacology

NURSING MANAGEMENT & PROFESSIONAL CONCEPTS...covers nursing management and professional issues related to the role of the registered nurse. Emphasis is placed on preparing for practice as a registered nurse. This course requires a minimum grade of "C" or better. **PREREQUISITE:** 10543109 Nrsrg Complex Hlth Alterations 1 and 10543112 Nursing Advanced Skills and 10543110 Nrsrg Mental Hlth Comm Concepts and 10543111 Nrsrg Intern Clin Practice and **CONDITION:** Nursing-Associate Degree enrollment requirements met

NURSING PHARMACOLOGY...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. Student must be enrolled in the Nursing program. Course requires a minimum grade of "C" or better. **CONDITION:** 105431 Nursing-Associate Degree enrollment reqs met and **COREQ:** 10806177 or 10806177OL or 10806177SA Gen Anat & Phys

NURSING SKILLS...focuses on 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 current health history and basic physical assessment skills using a body systems approach. This course requires a minimum grade of "C" or better. **CONDITION:** 105431 Nursing-Associate Degree enrollment reqs met and **COREQUISITE:** 10806177 or 10806177OL or 10806177SA Gen Anatomy and Physiology

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

Program Number 31-106-1
Technical Diploma • Two Terms

ABOUT THE PROGRAM

Today's businesses realize it takes efficiency and effectiveness on the part of the office staff to be successful. If your ideal work environment includes using high-tech equipment, working well with people, being organized and attentive to detail, and handling a variety of different tasks, a career as an office assistant may be a satisfying choice. This program is offered in a Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Perform accurate workplace communications.
- Use technology skills for business tasks.
- Perform routine office procedures.
- Demonstrate professionalism and effective workplace relationships.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
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 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/business-management-administration/office-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

RELATED PROGRAMS

Administrative Professional Associate Degree

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10801136	English Composition 1	3
10103191	Word - Level 1*	1
10103192	Word - Level 2*	1
10106101	Document Formatting*	1
10106132	Keyboard Speedbuilding*	1
10103161	PowerPoint - Level 1*	1
10106202	Computers and the Internet*	1
10103121	Excel - Level 1*	1
10103122	Excel - Level 2*	1
10106200	Intro to Filing Systems*	1
10106201	Applying Filing Systems*	1
10106203	Basic Office Equipment*	1
		14
Term 2		
10801198	Speech	3
10106204	Professionalism and Work Skills*	1
10106205	Interacting with Others in the Workplace*	1
10106207	Web 2.0 for Business*	1
10106209	Introduction to Business Writing*	1
10106206	Leadership and Ethics*	1
10106208	HTML, CSS, and Web Design*	1
10106210	Intermediate Business Writing*	1
10103101	Access - Level 1*	1
10116109	Career Planning and Networking*	1
10106211	Business Writing Applications*	1
		13
		TOTAL 27

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCESS - LEVEL 1...introduces students to the process of creating a database, building and populating a table, establishing table relationships, and creating queries, forms, and reports.

APPLYING FILING SYSTEMS...applies the rules for paper and electronic filing systems; charge-out procedures, retention schedules, and transfer methods.

BASIC OFFICE EQUIPMENT...prepares the learner to work in office setting. The learner will be exposed to typical hardware found and software used in the office environment and gain the skills needed to be efficient on the job.

BUSINESS WRITING APPLICATION...develop transcription and composition skills to create and process business documents.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

COMPUTERS AND THE INTERNET...provides the learner with introductory knowledge and skills related to operating a computer on a network and computer storage and processing, digital security, privacy, and threats; computer components; storage; and procedures that prepare you to work alongside administrative leaders via real-world business scenarios. The learner will also evaluate internet service providers.

DOCUMENT FORMATTING...prepares the learner to keyboard and format business memorandums, letters and reports, and other business documents. Emphasis will be placed on proofreading and editing skills.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

EXCEL - LEVEL 2...will explore Excel tables and charts, working with multiple worksheets and workbooks at once, creating applications and rules, protecting worksheets and workbooks and learning about macros and comments. COREQUISITE: 10103121 Excel – Level 1

HTML, CSS, AND WEB DESIGN...prepares the learner to write and modify code to create a simple business website and custom HTML emails.

INTERACTING WITH OTHERS...prepares the learner to identify different communication styles and strategies while working in a diverse environment. Learners will examine exemplary customer service skills.

INTERMEDIATE BUSINESS WRITING...refine and apply writing skills within the professional workplace. Proofread and edit business documents for appropriate content and clarity.

INTRO TO BUSINESS WRITING...develop writing skills with a focus on effective communication within the professional workplace. Review grammar, punctuation, and word usage skills.

INTRODUCTION TO FILING SYSTEMS...introduces the fundamentals of managing the record and information life cycle; charge-out procedures; retention schedules; transfer methods; control measurements; imaging systems and information security.

KEYBOARD SPEEDBUILDING...prepares the learner with the skills to keyboard text with speed and accuracy using the “touch” method.

LEADERSHIP AND ETHICS...prepares the learner to deal with conflict in the workplace while maintaining ethical standards. The learner will also identify leadership styles in the workplace.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

PROFESSIONALISM AND WORK SKILLS...prepares the learner to communicate effectively while developing and discussing critical work skills such as time and stress management, critical thinking, listening, and organization.

SPEECH...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. Discuss reading academic course support with your Counselor.

WEB 2.0 FOR BUSINESS...provides a basic understanding of the web as well as the tools used to create blogs, web videos, and social media accounts for business use. Reviews social web tools and components.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

WORD - LEVEL 2...introduces the student to multi-column documents, templates, and the mail merge feature while applying WordArt, themes, styles, quick parts, and other advanced document formatting features. COREQUISITE: 10103191 Word - Level 1

**Program Number 61-106-6
Certificate • 13 credits**
ABOUT THE PROGRAM

Businesses depend on high-quality, accurate information. If you value organization, care about details, and understand the importance of clear communication and current technology skills, developing those talents with the Office Technology certificate may be just what you need to succeed. This program is offered in a Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Model professionalism in the workplace.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/office-technology>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10103191	Word - Level 1*	1
10103192	Word - Level 2*	1
10106101	Document Formatting*	1
10106132	Keyboard Speedbuilding*	1
10106202	Computers and the Internet*	1
10103121	Excel - Level 1*	1
10103161	PowerPoint - Level 1*	1
10106203	Basic Office Equipment*	1
		8
Term 2		
10106204	Professionalism and Work Skills*	1
10106205	Interacting with Others in the Workplace*	1
10106207	Web 2.0 for Business*	1
10106206	Leadership and Ethics*	1
10106208	HTML, CSS, and Web Design*	1
		5
		TOTAL 13

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BASIC OFFICE EQUIPMENT...prepares the learner to work in office setting. The learner will be exposed to typical hardware found and software used in the office environment and gain the skills needed to be efficient on the job.

COMPUTERS AND THE INTERNET...provides the learner with introductory knowledge and skills related to operating a computer on a network and computer storage and processing, digital security, privacy, and threats; computer components; storage; and procedures that prepare you to work alongside administrative leaders via real-world business scenarios. The learner will also evaluate internet service providers.

DOCUMENT FORMATTING...prepares the learner to keyboard and format business memorandums, letters and reports, and other business documents. Emphasis will be placed on proofreading and editing skills.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

HTML, CSS, AND WEB DESIGN...prepares the learner to write and modify code to create a simple business website and custom HTML emails.

INTERACTING WITH OTHERS...prepares the learner to identify different communication styles and strategies while working in a diverse environment. Learners will examine exemplary customer service skills.

KEYBOARD SPEEDBUILDING...prepares the learner with the skills to keyboard text with speed and accuracy using the "touch" method.

LEADERSHIP AND ETHICS...prepares the learner to deal with conflict in the workplace while maintaining ethical standards. The learner will also identify leadership styles in the workplace.

POWERPOINT - LEVEL 1...introduces the student to the program by planning and creating a presentation, adding media and special effects, and applying advanced formatting to objects.

PROFESSIONALISM AND WORK SKILLS...prepares the learner to communicate effectively while developing and discussing critical work skills such as time and stress management, critical thinking, listening, and organization.

WEB 2.0 FOR BUSINESS...provides a basic understanding of the web as well as the tools used to create blogs, web videos, and social media accounts for business use. Reviews social web tools and components.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

WORD - LEVEL 2...introduces the student to multi-column documents, templates, and the mail merge feature while applying WordArt, themes, styles, quick parts, and other advanced document formatting features. COREQUISITE: 10103191 Word - Level 1

Program Number 10-531-1
Associate Degree in Applied Science • Varies

ABOUT THE PROGRAM

Life can bring about unfortunate events of medical or traumatic emergency; a Paramedic is a highly trained and skilled medical professional ready to assist those in need. Paramedics integrate Advanced Life Support treatment measures into the challenging acute care environment. The Associate Degree Paramedic (ADP) is the individual that has exceeded minimum professional requirements and has furthered their education beyond the entry level technical diploma to gain additional knowledge and capabilities to better serve their region.

PROGRAM OUTCOMES

- Prepare for incident response and EMS operations.
- Integrate pathophysiological principles and assessment findings to provide appropriate patient care.
- Demonstrate paramedic skills associated with established standards and procedures for a variety of patient encounters.
- Communicate effectively with others.
- Demonstrate professional behavior.
- Meet state and national competency listed for paramedic certification(s).

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/paramedic-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Students successfully completing Terms 1, 2, and 3 coursework of the program are able to sit for the National Registry Paramedic exam. The remaining general education and science courses can be completed afterwards to complete the Associate Degree requirements for graduation. The Lakeshore College Paramedic Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). 25400 US Highway 19 N., Suite 158, Clearwater, FL 33756. Phone: 727-210-2350. Web: www.caahep.org.
- Lakeshore College's Paramedic Technician program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Term 1 (Spring)

10531911	EMS Fundamental	2
10531912	Paramedic Medical Principles	4
10531913	Advanced Patient Assessment Principles	3
10531914	Advanced Pre-Hospital Pharmacology	3
10531915	Paramedic Respiratory Management	2
10531916	Paramedic Cardiology 1	1
10531926	Paramedic Essentials 1	1
10531930	Paramedic Clinical 1	1
		17

Term 2 (Summer)

10531932	Paramedic Cardiology 2	3
10531918	Advanced Emergency Resuscitation	1
10531922	EMS Operations	1
10531928	Paramedic Clinical 2	2
10531927	Paramedic Essentials 2	1
		8

Term 3 (Fall)

10531919	Medical Emergencies	4
10531920	Paramedic Trauma	3
10531921	Special Patient Populations	3
10531923	Paramedic Capstone	1
10531933	Paramedic Essentials 3	1
10531929	Paramedic Field Clinical	2
10531931	Paramedic Internship	1
		15

Term 4

10804107	College Mathematics	3
10806177	General Anatomy & Physiology	4
10801195	Written Communication	3
10809198	Introduction to Psychology	3
		13

Term 5

10806179	Advanced Anatomy & Physiology	4
10801196	Oral/Interpersonal Communication	3
		7

TOTAL 60

To contact CoAEMSP:
8301 Lakeview Parkway
Suite 111-312
Rowlett, TX 75088
214-703-8445
Fax 214-703-8992
www.coaemsp.org

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

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. Instructional delivery within a classroom and laboratory setting. Experimentation within a science lab will include analysis of cellular metabolism, the individual components of body systems such as the nervous, neuromuscular, cardiovascular, and urinary. Continued examination of homeostatic mechanisms and their relationship to fluid, electrolyte, acid-base balance and blood. Integration of genetics to human reproduction and development are also included in this course. **PREREQUISITE:** 10806177 General Anatomy & Physiology or equivalent. Discuss reading academic course support with your Counselor.

ADVANCED EMERGENCY RESUSCITATION...provides ACLS and PALS knowledge and skills preparing the 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 with intervention to prevent respiratory and/or cardiac arrest if possible. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531916 Paramedic Cardiology

ADVANCED PATIENT ASSESSMENT PRINCIPLES...provides knowledge of scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531912 Paramedic Medical Principles

ADVANCED PRE-HOSPITAL PHARMACOLOGY...provides student with comprehensive knowledge of pharmacology required to formulate and administer a pharmacological treatment plan intended to mitigate emergencies and improve the health of the patient. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531913 Advanced Patient Assessment Principles

COLLEGE MATHEMATICS...is designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. Discuss math academic course support with your Counselor.

EMS FUNDAMENTAL...provides comprehensive knowledge of EMS systems, safety, well-being, legal issues and ethical issues with intended outcome of improving EMS personnel, patients and the community. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **PREREQUISITES:** 10531102 EMT Basic or 30531301 EMT Part 1 or EMT WI License

EMS OPERATIONS...provides the knowledge of operational roles and responsibilities to ensure patient, public and EMS personnel safety. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531918 Advanced Emergency Resuscitation

GENERAL ANATOMY AND PHYSIOLOGY...examines 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. **PREREQUISITE:** 10806134 General Chemistry or equivalent. Discuss reading academic course support with your Counselor.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

MEDICAL EMERGENCIES...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531918 Advanced Emergency Resuscitation

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PARAMEDIC CAPSTONE...provides the final opportunity to incorporate knowledge and skills through labs and scenario-based practice and evaluations prior to taking the NREMT written and practical exams. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531922 EMS Operations

PARAMEDIC CARDIOLOGY 1...provides the principles of cardiovascular anatomy, physiology, epidemiology, and pathophysiology to formulate a field impression and a plan for a patient with a cardiovascular complaint. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531915 Paramedic Respiratory Management

PARAMEDIC CARDIOLOGY 2...continues the paramedic's knowledge of cardiology. Incorporates basic and advanced electrocardiogram rhythm interpretation as well as introduces students to Advanced Cardiovascular Life Support (ACLS).

PARAMEDIC CLINICAL 1...allows paramedics their first experiences providing advanced level skills and assessments on patients in a healthcare setting. Students will be assigned to an area hospital to begin their clinical training and meeting their assigned clinical competencies. Activities may include rotations within hospital emergency departments, operating rooms, intensive care units, and/or rotations with lab or respiratory staff. **COREQUISITE:** 10531911 EMS Fundamentals and **CONDITION:** 105311 Paramedic Tech or 105312 Fire Medic or 315311 EMT Paramedic program admission requirements met

PARAMEDIC CLINICAL 2...provides student with the opportunity to enhance their learning through the skills practice in a health care environment experience with actual patients under the supervision of approved preceptors or high-fidelity human patient simulator. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531930 Paramedic Clinical 1

PARAMEDIC ESSENTIALS 1...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will apply assessment and skill knowledge while demonstrating paramedic level skills in a variety of scenarios and environments.

PARAMEDIC ESSENTIALS 2...reinforces student learning through practice of paramedicine in a controlled supervised environment utilizing hands on skills performed on simulated live patients and high-fidelity manikins and anatomy models. The student will evaluate patient presentations in short scenarios, formulate and reassess treatment plans while performing skills need to carry out patient treatments. Students will participate in learning and demonstrate first responder health and wellbeing during this section. **CONDITION:** 105311 Paramedic Technician or 105312 Fire Medic or 315311 EMT Paramedic program admission requirements met

PARAMEDIC ESSENTIALS 3...provides a continued growth in patient assessment, treatment plans and skills working toward the mastery of paramedic level patient care. The focus of this sections will include complete patient care, team management, responder health and wellbeing, and daily operations. Students will demonstrate mastery of knowledge and skills in classroom activities and extended scenarios.

PARAMEDIC FIELD CLINICAL...provides student with the opportunity to enhance their learning through the practice in the prehospital environment with actual patients under the supervision of approved preceptors. Students will be assigned to an area Paramedic ambulance service provider to incorporate their previously acquired capabilities into prehospital patient care. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531918 Advanced Emergency Resuscitation

PARAMEDIC INTERNSHIP...demonstrates to paramedic students their team leadership capabilities while assessing, formulating treatments plans, and delegating tasks to their EMS team members. Students will be assigned to an area paramedic ambulance service to complete requirements during this capstone field internship.

PARAMEDIC MEDICAL PRINCIPLES...provides the knowledge of anatomy, physiology and pathophysiology of major human systems while also introducing the students to shock, immunology and bleeding. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531911 EMS Fundamentals

PARAMEDIC RESPIRATORY MANAGEMENT...provides specific knowledge pertaining to the respiratory system and to ensure the student is prepared to formulate a field impression and implement a comprehensive treatment plan for a respiratory complaint. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531914 Advanced Prehospital Pharmacology

PARAMEDIC TRAUMA...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for an acutely injured patient. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met

SPECIAL PATIENT POPULATIONS...provides the student the skills to integrate assessment findings with principles of anatomy, physiology, epidemiology and pathophysiology to formulate a field impression and implement a treatment plan for patient with special needs. **CONDITION:** 105311 Paramedic Technician or 315311 EMT Paramedic or 105312 Fire Medic program requirements met and **COREQUISITE:** 10531920 Paramedic Trauma

WRITTEN COMMUNICATION...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents. **COREQUISITE:** Writing placement assessment or equivalent AND Reading placement assessment or equivalent

Program Number 61-509-2
Certificate • 7 credits

ABOUT THE PROGRAM

The Patient Services Specialist Certificate prepares students to perform medical support duties using specific knowledge of medical terminology, customer service, and technology within a hospital, clinic, or laboratory. Duties may include scheduling appointments, billing patients, compiling and recording medical charts, reports and correspondence as well as schedule and confirm patient diagnostic appointments, surgeries, or medical consultations.

PROGRAM OUTCOMES

- Communicate professionally with clients, families and co-workers
- Perform basic computer functions utilized in the healthcare setting
- Demonstrate understanding of medical terminology and the language of medicine

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/patient-services-specialist>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

CONTACT

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Catalog No.	Class Title	Credit(s)
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COURSES

31501309	Medical Terminology Part 1*	1
31501310	Medical Terminology Part 2*	1
31501311	Medical Terminology Part 3*	1
31501104	Contemporary Healthcare Practices	2
31501307	Digital Literacy for Healthcare	2
		7

TOTAL 7

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

CONTEMPORARY HEALTHCARE PRACTICES...an introduction to contemporary healthcare practices for students interested in a career serving diverse healthcare communities. Learners explore the essential skills required for equitable and inclusive person-centered interactions. Learners examine various health communities, mindful practices, professionalism, problem solving, and patient confidentiality.

DIGITAL LITERACY FOR HEALTHCARE...focuses on 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.

MEDICAL TERMINOLOGY PART 1...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of integumentary, respiratory, and urinary systems, as well as systemic and surgical terminology.

MEDICAL TERMINOLOGY PART 2...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of reproductive systems, cardiovascular system, and the lymphatic and immune systems as well as systemic and surgical terminology. COREQUISITE: 31501309 Medical Terminology Part 1

MEDICAL TERMINOLOGY PART 3...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of digestive, skeletal, muscular, sensory, nervous, and endocrine as well as systemic and surgical terminology. COREQUISITE: 31501310 Medical Terminology Part 2

**Program Number 30-110-2
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

Paralegals work under the supervision of lawyers in a range of tasks—researching the law; preparing for hearings; interviewing clients and witnesses; and preparing legal documents and other legal correspondence. Paralegals cannot give legal advice or represent clients in court. If you are detail-oriented, organized, strong in communication, and enjoy researching and analyzing facts, you might find a career as a paralegal very rewarding. This credential is appropriate for those persons who already have earned a bachelor's degree.

PROGRAM OUTCOMES

- Apply ethical principles in a legal environment.
- Process legal documents.
- Perform legal research.
- Synthesize various sources into a supportable legal conclusion.
- Demonstrate professionalism as a member of a legal team.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/law-public-safety-security/post-baccalaureate-legal-studiesparalegal>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE FOR ONLINE LEARNERS

While some of the courses may be offered online, students are required to take at least nine semester credits or the equivalent of legal specialty courses through traditional classroom instruction. This requirement may be satisfied through synchronous interactive video systems, as they are considered equivalent to traditional classroom instruction.

CONTACT

Lakeshore College Recruiter
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Catalog No.	Class Title	Credit(s)
Term 1 (Spring)		
10110101	Introduction to Paralegalism and Legal Ethics	3
10110102	Civil Litigation 1	3
10110106	Family Law	3
10110104	Legal Research	3
		12
Term 2 (Fall)		
10110168	Criminal Law - Paralegal	3
10110103	Civil Litigation 2	3
10110105	Legal Writing	3
10110132	Personal Branding - Paralegal	1
10110143	Paralegal Internship	2
		12
		TOTAL 24

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

CIVIL LITIGATION 1...provides the learner with the skills to evaluate causes of action and defenses; conduct an initial client interview; perform an initial investigation; draft a summons and complaint, answer, counterclaim, cross complaint, motions and supporting documents, select appropriate discovery devices; draft interrogatories and responses; prepare for depositions; draft a Notice of deposition and Subpoenas; analyze fact patterns; and evaluate evidentiary objections. PREREQUISITE: 10110101 Intro to Paralegalism

CIVIL LITIGATION 2...provides the learner with the skill to evaluate and summarize depositions; evaluate evidentiary challenges; prepare a witness list; draft settlement documents; locate expert witnesses; prepare witnesses; prepare for presentation of evidence at trial; prepare a trial notebook; draft a Bill of Costs; prepare post trial motions; evaluate and research appellate issues. PREREQUISITE: 10110102 Civil Litigation 1 or CONDITION: 301102 Post-Bacc Legal Studies/Paralegal admission requirements met

CRIMINAL LAW-PARALEGAL...provides the learner with the skills to analyze state and federal criminal procedures, determine if a search and arrest is in accordance with the Fourth Amendment, analyze the Miranda rules, draft a criminal summons and complaint, determine possible defenses for a defendant, draft motions, analyze a criminal complaint and jury instructions for required elements, create demonstrative evidence, create a trial notebook, conduct a client interview, and contrast prosecution and defense roles. COREQUISITE: 10110101 Intro to Paralegalism

FAMILY LAW...provides the learner with the skills to conduct an initial client interview for a family law matter, including divorce and domestic violence; draft initial pleadings for divorce, financial family law documents, divorce discovery documents, and concluding documents in divorces; assess the need for post-divorce modification and enforcement; and outline factors involving child custody and support. PREREQUISITE: 10110101 Intro to Paralegalism

INTRODUCTION TO PARALEGALISM AND LEGAL ETHICS...introduces the learner to the paralegal profession, including civil, criminal, and administrative procedure; state and federal judicial systems; legal research; case briefing; ethical rules that apply to paralegals; law office software; and substantive civil law.

LEGAL RESEARCH...provides the learner with the skills to differentiate between primary or secondary authority, locate statutes and constitutional provisions, locate case law, locate administrative regulations, locate secondary authority, use correct citation form, verify and update legal authority, formulate legal issues, use effective research strategies, evaluate solutions to legal problems, and use computer-assisted and internet legal research strategies. Some classes will be held off campus in a law library. PREREQUISITE: 10110101 Intro to Paralegalism

LEGAL WRITING...provides the learner with the skills to draft legal correspondence, operative legal documents, case briefs, and legal and office memoranda; analyze and synthesize legal authority; use correct citation form; draft a civil pleading, affidavit, trial brief, and appellate brief; and apply rules of civil procedure. PREREQUISITE: 10110104 Legal Research and (10801136 English Comp 1 or 10801195 Written Comm) or CONDITION: 301102 Post-Bacc Legal Studies/Paralegal admission reqs met

PARALEGAL INTERNSHIP...enhances the participant's ability to perform the duties of a paralegal; to seek and obtain employment as a paralegal; apply paralegal skills in an actual workplace setting; to perform legal research and writing; and understand law office systems and administration. Students are responsible for seeking and obtaining an internship position for a minimum of 144 hours in a legal environment under the supervision of an attorney or other qualified professional, completing an internship agreement and e-portfolio, maintaining a work log and obtaining approval from the internship instructor. COREQUISITE: 10110105 Legal Writing

PERSONAL BRANDING-PARALEGAL...prepares the student to prepare an electronic portfolio, to develop a career plan, write a resume, create a cover letter, prepare for an interview, search for work on the internet, adapt a resume for an electronic scan, and post a resume and cover letter on the internet.

**Program Number 31-543-1
Technical Diploma • Five Terms**
ABOUT THE PROGRAM

If you're ill or injured, it's comforting to know you're in the care of highly skilled, well-educated healthcare professionals. If you work well under pressure; like math, science, communications, and problem solving; are independent; and have a strong desire to work with and help people—a career as a practical nurse may be the choice for you.

PROGRAM OUTCOMES

- Integrate Practical Nursing identity reflecting integrity, responsibility, and nursing standards.
- Communicate basic information using multiple sources in nursing practice.
- Utilize theoretical knowledge to participate in decision making.
- Apply the nursing process to basic client care across diverse populations.
- Function as a healthcare team member to provide safe and effective care.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer. Graduates may bridge into the Associate Degree Nursing (ADN) program by passing the PN-NCLEX and completing pre-reqs for the ADN program. The bridge pathway consists of two 1-credit courses (Bridge Skills and Bridge Clinical) taken over the summer. Students would then start the 6th semester ADN courses in fall.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores. Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/practical-nursing>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- To complete the clinical portion of this program, site specific health and immunization documentation will be required.
- Classes may run 4 afternoon/evenings per week and some Fridays and/or Saturdays.
- In order to facilitate the evening hours, the theory classes will extend to a 17 week semester in the final term of the program.
- This program has been approved by the Wisconsin Board of Nursing.
- Lakeshore's Practical Nursing program is accredited by the Accreditation Commission for Education in Nursing, 3390 Peachtree Road N.E., Suite 1400, Atlanta, GA 30326, 404-975-5000 Fax 404-975-5020. www.acenursing.org

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1 (Fall)		
31809188	Developmental Psychology	3
31801136	English Composition 1	3
		6
Term 2 (Spring)		
31509302	Human Body in Health and Disease OR 31806177 General Anatomy & Physiology (4 cr)	3
31801196	Oral/Interpersonal Communications	3
		6
Term 3 (Summer)		
31543301	Nursing Fundamentals	2
		2
Term 4 (Fall)		
31543302	Nursing Skills	3
31543303	Nursing Pharmacology	2
31543304	Nursing Intro Clinical Practice	2
		7
Term 5 (Spring)		
31543305	Nursing Health Alterations*	3
31543306	Nursing Health Promotion*	3
31543307	Nursing Clinical Care Across the Lifespan	2
31543308	Intro to Clinical Care Management	2
		10
		TOTAL 31

*Begins prior to start of semester.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

DEVELOPMENTAL PSYCHOLOGY...introduces the student to 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. Discuss reading academic course support with your Counselor.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

HUMAN BODY IN HEALTH & DISEASE...students learn to recognize human body structure and function in health and disease states. Students explore the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis, and prevention of diseases commonly diagnosed and treated in the medical office setting. COREQUISITE: 31501302 or 10501101 Medical Terminology and Reading placement assessment equivalent

INTRO TO CLINICAL CARE MANAGEMENT...applies nursing concepts and therapeutic nursing interventions to groups of clients across the lifespan. It also provides an introduction to leadership, management, and teambuilding. Student must have completed all first semester and general education courses. Course requires a minimum grade of "C" or better. COREQUISITE: 31543305 Nursing Health Alterations and CONDITION: 315431 Practical Nursing admission requirements met

NURSING CLINICAL CARE ACROSS THE LIFESPAN...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. Student must have completed all first semester and general education courses. Course requires a minimum grade of "C" or better. Some Friday day/evening hours are required. COREQUISITE: 31543306 Nursing Health Promotion and CONDITION: 315431 Practical Nursing admission requirements met

NURSING FUNDAMENTALS...focuses on basic nursing concepts to provide evidenced-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. This course requires a minimum grade of "C" or better. PREREQUISITES: 31806177 Gen A & P or 31509302 Hum Body Hlth Disease, 31809188 Developmental Psych, 31801196 Oral/Interpersonal Comm, 31801195 Written Comm and CONDITION: 315431 Practical Nursing admission requirements met

NURSING HEALTH ALTERATIONS...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 evidence-based nursing interventions. It will also introduce concepts of leadership and management. Course requires a minimum grade of "C" or better. PREREQUISITES: 31543301 Nursing Fundamentals and 31543302 Nursing Skills, 31543303 Nursing Pharmacology, and 31543304 Nursing: Intro to Clinical Practice and CONDITION: 315431 Practical Nursing admission requirements met

NURSING HEALTH PROMOTION...focuses on topics related to health promotion for individuals and families throughout the 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. Course requires a minimum grade of "C" or better. PREREQUISITES: 31543301 Nursing Fundamentals, 31543302 Nursing Skills, 31543303 Nursing Pharmacology, and 31543304 Nursing: Intro to Clinical Practice and CONDITION: 315431 Practical Nursing admission requirements met

NURSING INTRO CLINICAL PRACTICE...is an introductory clinical course that 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. Student needs to be admitted to the Practical Nursing program. Course requires a minimum grade of "C" or better. CONDITION: 315431 Practical Nursing Admissions Requirements Met; and COREQUISITE: 31543301 Nursing Fundamentals and 31543302 Nursing Skills and 31543303 Nursing Pharmacology

NURSING PHARMACOLOGY...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. Student must be admitted to the Practical Nursing program. Course requires a minimum grade of "C" or better. PREREQUISITES: 31806177 Gen A & P or 31509302 Hum Body Hlth Disease, 31809188 Developmental Psych, 31801196 Oral/Interpersonal Comm, 31801195 Written Comm and CONDITION: 315431 Practical Nursing admission requirements met

NURSING SKILLS...focuses on 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. This course requires a minimum grade of "C" or better. Some Saturday hours are required. PREREQUISITES: 31806177 Gen A & P or 31509302 Hum Body Hlth Disease, 31809188 Developmental Psych, 31801196 Oral/Interpersonal Comm, 31801195 Written Comm and CONDITION: 315431 Practical Nursing admission requirements met

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

**Program Number 31-420-1
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

Learn Machining and Computer Numerical Control (CNC) at your own pace, through hands-on learning. Just about every product that you use in your daily activities is the result of a machine tool manufacturing process. If you like hands-on work, are detail-oriented, and are able to develop and follow through on work instructions, a career in machine tool operation offers you lifelong opportunities.

PROGRAM OUTCOMES

- Apply basic safety practices in the machine shop.
- Interpret industrial/engineering drawings.
- Apply precision measuring methods to part inspection.
- Perform basic machine tool equipment set-up and operation
- Perform programming, set-up and operation of CNC Machine Tools.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/precision-machining-technology>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- This program offers flexible start dates throughout the year.

RELATED PROGRAMS

- CNC Automation Technician Technical Diploma
- Machinist Apprenticeship
- Tool & Die Apprenticeship

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
31442350	Metal Manufacturing Processes*	1
31420330	Precision Measuring*	1
31420385	Orthographic Projection Print*	1
31420325	Manufacturing Math*	1
31420338	Drills and Saws*	1
31420340	Manual Lathe Operation*	1
31420350	Manual Mill Operation*	1
31420386	GD&T Intro*	1
31420326	Manufacturing Applied Math*	1
31444301	G&M Code Programming*	1
31444303	CNC Machining Operation*	1
31444309	CNC Turning Operation*	1
31420359	Heat Treat and Precision Grinding*	1
		13
Term 2		
31801361	Interpersonal Skills	1
31801360	Workplace Fundamentals	1
31444307	Mill-2D Using CAM*	1
31420353	ProtoTrak Mill-Squaring Programming*	1
31420354	ProtoTrak Mill-Slot and Hole Programming*	1
31444311	CNC Turning-Turning and Cut Off Setup*	1
31444313	CNC Turning-Hole Producing Setup/Threading*	1
31444315	CNC Machining-Facing and End Milling Setup*	1
31444317	CNC Machining-Hole/Slot/Engraving Setup*	1
31444321	CNC Turning 2D Using CAM*	1
31420361	Complex Print Drawings*	1
31420362	Advanced Precision Measuring*	1
31420363	GD&T-Inspection *	1
		13
		TOTAL 26

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED PRECISION MEASURING...prepares the learner to inspect using the following: precision measuring tools, surface finish measuring tools, GD&T form tolerances, GD&T orientation tolerances, GD&T profile and runout tolerances, and GD&T location tolerances, and examine basic CMM programming and operation principles.

CNC MACHINING OPERATION...prepares the learner to follow Computer Numerical Control (CNC) machining center machine tool safety rules, identify components, apply coordinate systems, load programs into the machining center, load cutting tools, enter offsets for tools and workpiece, and operate a CNC machining center.

CNC MACHINING-FACING AND END MILLING SETUP...prepares the learner to follow Computer Numerical Control (CNC) machining center safety rules, apply coordinate systems, identify components and tooling, and setup and operate a CNC machining center.

CNC MACHINING-HOLE/SLOT/ENGRAVING SETUP...prepares the learner to apply additional tooling and setup and operation techniques to the CNC machining center including, end-milling tools to obtain size, drilling, tapping and engraving tooling.

CNC TURNING 2D USING CAM...provides the learner with skills to construct and modify geometry, create toolpaths for CNC turning operations and develop operator documents using Computer Aided Manufacturing software (CAM).

CNC TURNING OPERATION...prepares the learner to follow Computer Numerical Control (CNC) turning center machine tool safety rules, identify components, apply coordinate systems, load programs into the machining center, load cutting tools, enter offsets for tools and workpiece, and operate a CNC turning center.

CNC TURNING-HOLE PRODUCING SETUP/THREADING...prepares the learner to apply additional tooling and setup and operation techniques to the CNC turning center including drilling, tapping and internal boring.

CNC TURNING-TURNING AND CUT OFF SETUP...prepares the learner to apply additional tooling and setup and operation techniques to the CNC turning center including drilling, tapping and internal boring.

COMPLEX PRINT DRAWINGS...enhances the learner's ability to interpret complex part drawings answering questions specifically related to: projection type and violations of true projection, positional dimensioning, geometric dimensioning and tolerancing, screw thread types and threaded fasteners, workpiece material types and structural shapes, pin fasteners, springs, and worm gears. COREQUISITE: 31420386 GD&T Intro

DRILLS AND SAWS...prepares the learner to interpret the attributes of hole-producing tools, follow drilling machine safety rules, identify components, operate sensitive drilling machine, identify metal composition and classification, follow cutoff safety rules, operate horizontal and vertical cutoff machines.

G&M CODE PROGRAMMING...will have the learner demonstrate an understanding of Computer Numerical Control (CNC) systems, interpret positions in the coordinate system, prepare a cutting tool list, prepare a machining process list, identify, and use common G&M codes, and prepare G&M part programs for machining centers. A basic understanding of cutters used on the mills is necessary to be successful in this class.

GD&T INSPECTION...prepares the learner to inspect Geometric Dimensioning and Tolerancing (GD&T) part features. This course also introduces the student to the latest measuring technology including Coordinate Measuring Machine (CMM) and 3D scanning.

GD&T INTRO...prepares the learner to read prints; make isometric sketches; interpret orthographic projection drawings to include sections, auxiliary views, threads, fasteners, surface finishes, geometric dimensions, tolerancing, and assembly prints. COREQUISITE: 31420385 Orthographic Projection Print

HEAT TREAT AND PRECISION GRINDING...prepares the learner to interpret the properties of ferrous materials, heat treat ferrous material, test the hardness of ferrous materials, and interpret the properties of non-ferrous materials.

INTERPERSONAL SKILLS...prepares the learner to model interpersonal skills, ethics and diversity.

MANUAL LATHE OPERATION...prepares the learner to perform lathe facing, turning, hole producing and threading operations safely.

MANUAL MILL OPERATION...prepares the learner to perform squaring, slot milling and hole producing using a vertical mill machine safely.

MANUFACTURING APPLIED MATH...prepares the learner with the necessary skills to use scientific calculators for the application of algebra, geometry, and trigonometry. COREQUISITE: 31420325 Manufacturing Math

MANUFACTURING MATH...prepares the learner to use scientific calculators for the applications of common fraction and mixed number problems, decimal problems, inch and metric conversion problems, basic percentage problems, powers and roots, and pre-algebra problems.

METAL MANUFACTURING PROCESSES...prepares the learner to communicate using proper terminology that is used in industry as it pertains to the use of hand/power tools and measurement. The learner will demonstrate good safety practices while in a workplace environment, demonstrate the proper use of hand and power tools. The learner will complete steel fabrications using hand/power tools and classify and install industrial fasteners. The learner will be introduced to material handling operations by using the overhead crane and forklift.

MILL-2D USING CAM...provides the learner with skills to: explore Computer Aided Manufacturing (CAM) software environment, construct 2-D geometry, modify existing geometry, create 2-D toolpaths for hole producing, profiling, and pocketing, modify toolpaths using operations manager, transform existing toolpaths and create CNC Machine Operator documents.

ORTHOGRAPHIC PROJECTION PRINT...prepares the learner to read prints, make isometric sketches, interpret orthographic projection drawings, to include sections, surface finishes, and tolerancing.

PRECISION MEASURING...prepares the learner to use semi-precision and precision measuring instruments and measurement techniques and use a surface plate as a basis for precision measurements.

PROTOTRAK MILL-SLOT AND HOLE PROGRAMMING...prepares the learner to select cutting tools, set up, program, and operate conversationally programmed vertical mills. Operations to include pockets, angles and position drill and programs. COREQUISITE: 31420353 ProtoTrak Mill-Squaring Programming

PROTOTRAK MILL-SQUARING PROGRAMMING...prepares the learner to select cutting tools, set up, program, and operate conversationally programmed vertical mills. Operations to include face mill, mill slots programs.

WORKPLACE FUNDAMENTALS...prepares the learner to incorporate problem solving, creativity and communication skills into daily workplace habits.

Program Number 10-623-2
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Quality Assurance is a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. In simple business terms, quality assurance is the difference between success and failure. If you believe in the idea of "quality in, quality out," and you want to play a vital role in helping an organization achieve success through quality, Lakeshore's Quality Assurance Technician program is the way to realize your goal. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Define the operations of a business across functional areas.
- Measure the current state of an organization's quality system.
- Analyze data and processes to meet organizational goals.
- Improve the quality system and processes.
- Control business processes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/quality-assurance-technician>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
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Catalog No.	Class Title	Credit(s)
Term 1		
10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10623118	Lean Manufacturing Overview*	3
10623101	Quality Concepts*	3
10623123	Blueprint Reading and Metrology* OR 10606206 Tolerancing and GD&T*	3
10116109	Career Planning and Networking*	1
		12
Term 2		
10182131	Supply Chain Management*	3
10196188	Project Management*	3
10801136	English Composition 1	3
10809144	Macroeconomics	3
10809198	Introduction to Psychology	3
		15
Term 3		
10804189	Introductory Statistics	3
10182102	Service Operations Management*	3
10101155	Accounting for Professionals*	3
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
		17
Term 4		
10623112	Lean Six Sigma - Implementation*	3
10623114	Lean Six Sigma Tools - Black Belt*	4
10182110	Negotiations*	3
10623193	ISO 9001 Internal Auditor*	3
10801198	Speech OR 10801196 Oral/Interpersonal Communication	3
		16
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING FOR PROFESSIONALS...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

BLUEPRINT READING AND METROLOGY...provides knowledge and skill in the understanding of quality measurement, quality measurement devices and their proper application. Quality measurement topics include precision, accuracy, control of variation, gage R/R, calibration techniques and blueprint/specification reading.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

ISO 9001 INTERNAL AUDITOR...is designed to introduce participants to the current ISO 9001 standard. The course is structured to provide a detailed review of the standards, how to document procedures, and how to perform audits. Students will practice preparation for and conducting audits in a local business. Successful completion of this course qualifies the student to receive the ISO 9001 Internal Auditor certificate (19-623-8).

LEAN MANUFACTURING OVERVIEW...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

LEAN SIX SIGMA - IMPLEMENTATION...introduces the student to the implementation of a Six Sigma project. Students apply the techniques used in prior Lean Six Sigma courses to a real problem in their place of employment. An emphasis is placed on team skills required to successfully implement the project. Skills demonstrated include project initiation, time management, and constraint management. Student final projects demonstrate their mastery of both DMAIC and Lean methodologies. COREQUISITE: 10623111 Lean Six Sigma-Improve & Control

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POUS, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. COREQUISITE: 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

LEAN SIX SIGMA TOOLS - BLACK BELT...provides the student with the knowledge to achieve Lean Six Sigma - Black Belt. Students demonstrate additional proficiency in high level statistical analysis including reliability, hypothesis testing, ANOVA, DOE, failure rates and MTBF. Project management through the DMAIC process is examined. Students learn how to "build quality in" at the design stage by use of the concepts of design for six sigma (DFSS). COREQUISITE: 10623112 Lean Six Sigma-Implementation

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NEGOTIATIONS...is an exciting introduction into negotiations where the following topics will be discussed: nature of negotiations, framing, strategy, integrated negotiations, distributed negotiations, communication, perception, bias, leverage, ethics, global negotiations, and managing difficult negotiations. It is a must course for students desiring to exceed in business.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

QUALITY CONCEPTS...provides an overview of quality systems, methods and analysis. Basic quality philosophies such as Deming's principles, continuous improvement, quality costs, supplier relations and inspection theory will be presented. The components of a basic quality system compatible with ISO 9000 and Six Sigma will be explored. Techniques such as pareto, trend analysis, histograms, cause and effect diagrams and corrective/preventive action techniques will be applied to the data in order to address problems and improve processes.

SERVICE OPERATIONS MANAGEMENT...introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP) and supply chain management concepts in the service sector.

SPEECH...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. Discuss reading academic course support with your Counselor.

SUPPLY CHAIN MANAGEMENT...has been developed to provide a basic understanding of the planning and control of materials into, through, and out of organizations. In addition, those who want to become certified by APICS need a fundamentals course to learn about the material planning and control system. This course will provide a basis for further study leading to certification.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

**Program Number 31-623-2
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

This technical diploma, Quality Process Improvement, provides you with the basic skills for quality assurance work. This credential 'ladders' up to the full two-year associate degree, Quality Assurance Technician. Quality Assurance is a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. In simple business terms, quality assurance is the difference between success and failure. If you believe in the idea of "quality in, quality out," and you want to play a vital role in helping an organization achieve success through quality, Lakeshore's Quality Process Improvement technical diploma is the way to get you started in this field. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Define the operations of a business across functional areas.
- Measure the current state of an organization's quality system.
- Analyze data and processes to meet organizational goals.
- Improve the quality system and processes.
- Control business processes.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/quality-process-improvement>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10623118	Lean Manufacturing Overview*	3
10623101	Quality Concepts*	3
10623123	Blueprint Reading and Metrology*	3
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
		17
Term 2		
10623112	Lean Six Sigma - Implementation*	3
10623193	ISO 9001 Internal Auditor*	3
10801136	English Composition 1	3
		9
		TOTAL 26

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BLUEPRINT READING AND METROLOGY...provides knowledge and skill in the understanding of quality measurement, quality measurement devices and their proper application. Quality measurement topics include precision, accuracy, control of variation, gage R/R, calibration techniques and blueprint/specification reading.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ISO 9001 INTERNAL AUDITOR...is designed to introduce participants to the current ISO 9001 standard. The course is structured to provide a detailed review of the standards, how to document procedures, and how to perform audits. Students will practice preparation for and conducting audits in a local business. Successful completion of this course qualifies the student to receive the ISO 9001 Internal Auditor certificate (19-623-8).

LEAN MANUFACTURING OVERVIEW...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

LEAN SIX SIGMA - IMPLEMENTATION...introduces the student to the implementation of a Six Sigma project. Students apply the techniques used in prior Lean Six Sigma courses to a real problem in their place of employment. An emphasis is placed on team skills required to successfully implement the project. Skills demonstrated include project initiation, time management, and constraint management. Student final projects demonstrate their mastery of both DMAIC and Lean methodologies. **COREQUISITE:** 10623111 Lean Six Sigma-Improve & Control

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POUS, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. **COREQUISITE:** 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides the student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

QUALITY CONCEPTS...provides an overview of quality systems, methods and analysis. Basic quality philosophies such as Deming's principles, continuous improvement, quality costs, supplier relations and inspection theory will be presented. The components of a basic quality system compatible with ISO 9000 and Six Sigma will be explored. Techniques such as pareto, trend analysis, histograms, cause and effect diagrams and corrective/preventive action techniques will be applied to the data in order to address problems and improve processes.

Program Number 10-526-1
Associate Degree in Applied Science • Six Terms

ABOUT THE PROGRAM

The program prepares individuals for a career as a radiographer in diagnostic imaging (x-ray). The radiographer produces images of the human body to aid healthcare providers in the diagnosis of injuries and diseases.

Graduates of the program are eligible to take the certification examination administered by the American Registry of Radiologic Technologists (ARRT) and may obtain employment in imaging departments to include hospitals, medical clinics, surgery centers, and private offices.

Program curriculum focuses on theory (textbook material) and application (hands-on clinical experience). The clinical experience will consist of rotations in a hospital and clinic setting where the students will work with practicing radiographers to learn the equipment and to become proficient in the field.

PROGRAM OUTCOMES

- Carryout the production and evaluation of radiographic images.
- Practice radiation safety principles.
- Provide quality patient care.
- Model professional and ethical behavior consistent with the A.R.R.T. Code of Ethics.
- Apply critical thinking and problem-solving skills in the practice of diagnostic radiography.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/health-science/radiography>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Lakeshore offers its Radiography program in cooperation with Nicole College and Gateway Technical College. As a radiography student, you will attend live video conference classes and take general studies classes at your local technical college.
- Lakeshore's Radiography program is accredited by The Joint Review Committee on Education in Radiologic Technology, 20 North Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182. Phone: 1.312.704.5300.
- To complete the clinical portion of this program, site specific health and immunization documentation will be required.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
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Prerequisite Courses Taken Before Term 1

10806134	General Chemistry	4
10806177	General Anatomy and Physiology	4
31501309	Medical Terminology Part 1*	1
31501310	Medical Terminology Part 2*	1
31501311	Medical Terminology Part 3*	1

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Term 1

10526149	Radiographic Procedures 1	5
10526158	Introduction to Radiography	3
10526159	Radiographic Imaging	3
10526168	Radiography Clinical 1	2

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Term 2 (Summer)

10526113	Radiography Clinical 2	3
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3

Term 3

10526230	Advanced Radiographic Imaging	2
10526191	Radiographic Procedures 2	5
10526166	Radiography Clinical 3	2
10801196	Oral/Interpersonal Communication	3

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Term 4

10526194	Imaging Equipment Operation	3
10526231	Imaging Modalities	2
10526117	Radiography Clinical 4	3
10526189	Radiographic Pathology	1
10809198	Introduction to Psychology	3

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Term 5 (Summer)

10526167	Radiography Clinical 5	3
10801136	English Composition 1	3

6

Term 6

10526174	ARRT Certification Seminar	2
10526195	Radiographic Image Analysis	2
10526197	Radiation Protection and Biology	3
10526198	Radiography Clinical 6	2
10809196	Introduction to Sociology	3

12

TOTAL 69

*CBE delivery only

Lakeshore College's Radiography program prepares students to obtain the required licensure to be employed/practice in the state of Wisconsin. The College does not guarantee its curriculum matches the requirements for preparation, examination, or licensure for other states.

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ADVANCED RADIOGRAPHIC IMAGING...explores factors that impact image acquisition, display, archiving and retrieval. Guidelines for selecting exposure factors and evaluating images within digital systems are discussed. Principles of digital system quality assurance and maintenance are presented. PREREQ: 10526159 Radiographic Imaging

ARRT CERTIFICATION SEMINAR...provides preparation for the national certifying 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. Successful completion of the Radiography program requirements is required to enroll in this course. PREREQUISITE: 10526190 Radiography Clinical 5 and CONDITION: 105261 Radiography admissions requirements met

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

GENERAL ANATOMY AND PHYSIOLOGY...examines 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. PREREQUISITE: 10806134 General Chemistry or equivalent. Discuss reading academic course support with your Counselor.

GENERAL CHEMISTRY...covers the fundamentals of chemistry. Topics include the metric system, problem-solving, periodic relationships, chemical reactions, chemical equilibrium, properties of water; acids, bases, and salts; and gas laws. COREQ: 78854773 Math Essntls for Chem or equiv. Discuss reading academic support with your Counselor.

IMAGING EQUIPMENT OPERATION...introduces radiography students 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. PREREQUISITE: 10526230 Advanced Radiographic Imaging and CONDITION: 105261 Radiography admissions requirements met

IMAGING MODALITIES...introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy. PREREQUISITES: 10526191 Radiographic Procedures 2 and CONDITION: 105261 Radiography admissions requirements met

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTION TO RADIOGRAPHY...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. PREREQUISITE: 31501309 Med Term Pt 1, 31501310 Med Term Pt 2, & 31501311 Med Term Pt 3 or 10501101 Medical Terminology and CONDITION: 105261 Radiography admissions requirements met

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. Discuss reading academic course support with your Counselor.

MEDICAL TERMINOLOGY PART 1...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of integumentary, respiratory, and urinary systems, as well as systemic and surgical terminology.

MEDICAL TERMINOLOGY PART 2...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of reproductive systems, cardiovascular system, and the lymphatic and immune systems as well as systemic and surgical terminology. COREQ: 31501309 Medical Term Pt 1

MEDICAL TERMINOLOGY PART 3...focuses on the component parts of medical terms: prefixes, suffixes, and word roots. Students practice formation, analysis, and reconstruction of terms. Emphasis on spelling, definition, and pronunciation. Introduction to operative, diagnostic, therapeutic, and symptomatic terminology of digestive, skeletal, muscular, sensory, nervous, and endocrine as well as systemic and surgical terminology. COREQUISITE: 31501310 Medical Terminology Part 2

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

RADIATION PROTECTION AND BIOLOGY...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. PREREQUISITE: 10526194 Imaging Equip Operation and CONDITION: 105261 Radiography admissions requirements met

RADIOGRAPHIC IMAGE ANALYSIS...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. CONDITION: 105261 Radiography admissions requirements met and PREREQUISITE: 10526194 Imaging Equipment Operation

RADIOGRAPHIC IMAGING...introduces radiography students to the process and components of imaging. Students determine the factors that affect image quality including contrast, receptor exposure, spatial resolution and distortion. PREREQUISITES: 10806174 General Chemistry or 10806143 General Chemistry and CONDITION: 105261 Radiography admission requirements met

RADIOGRAPHIC PATHOLOGY...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. CONDITION: 105261 Radiography admissions requirements met

RADIOGRAPHIC PROCEDURES 1...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. CONDITION: 105261 Radiography admissions requirements met and PREREQUISITES: 10806177 Gen Anatomy & Physiology or 10806177OL Gen Anatomy & Physiology

RADIOGRAPHIC PROCEDURES 2...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. PREREQUISITE: 10526149 Radiographic Procedures 1

RADIOGRAPHY CLINICAL 1...is a beginning level clinical course that 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. CONDITION: 105261 Radiography admissions requirements met and COREQUISITE: 10526149 Radio Proc 1, 10526158 Intro to Radio, 10526159 Radiographic Imaging, and PREREQUISITE: 10806177 Gen A&P or 10806196 A&P II

RADIOGRAPHY CLINICAL 2...second level clinical course that 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. COREQ: 10526168 Radiography Clinical 1

RADIOGRAPHY CLINICAL 3...is the third level clinical course which 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. PREREQ: 10526113 Radiographic Clinical 2

RADIOGRAPHY CLINICAL 4...is the fourth level clinical course that 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. PREREQUISITE: 10526166 Radiographic Clinical 3

RADIOGRAPHY CLINICAL 5...is the fifth level clinical course that 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. PREREQUISITE: 10526117 Radiographic Clinical 4

RADIOGRAPHY CLINICAL 6...is the final clinical course which 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. PREREQUISITE: 10526167 Radiography Clinical 5

Program Number 61-316-2
Certificate • 5 credits

ABOUT THE PROGRAM

Provides an introduction to the growing Culinary/Hospitality industry and prepare the learner for an entry level position in the hospital and restaurant industry. Students will learn how to serve food & beverages, assist other kitchen workers, maintain sanitation standards and work with diverse food inventories.

PROGRAM OUTCOMES

- Apply principles of safety and sanitation in food service operations.
- Demonstrate front of the house food service and customer service skills.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/academics/certificates/restaurant-service-essentials>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/financial-aid/tuition-and-fees for details.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10109112	Sanitation for Food Service	1
10109108	Dining Room and Beverage Service	2
10316101	Product Identification and Purchasing	2

TOTAL 5

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

DINING ROOM AND BEVERAGE SERVICE...introduces learners to dining room and beverage service including wine, spirits, beer, mixology, and non-alcoholic drinks. Helps learners refine their customer service and meal delivery skills through the study and application of proper, customer-oriented dining room service environments including etiquette, dining room safety, set-up, styles of table service, and menu knowledge skills. Concepts include histories of table service, psychology of the customer, and service sequence.

PRODUCT IDENTIFICATION AND PURCHASING...focuses on meat and fish grading, classification, and purchasing standards. The proper identification of food products, equipment, and purchasing strategies are covered. Through discussion of quality, use, safe handling, fabrication, and sustainability students will explore the products that are utilized in professional kitchens. Safety, sanitation, and cost control concepts are introduced.

SANITATION FOR FOOD SERVICE...provides face to face food safety training, testing and materials to food service managers. The Serv Safe Manager certification test is included and a passing score earns the Serv Safe Food Protection Manager Certification.

Program Number 31-182-1
Technical Diploma • Two Terms

ABOUT THE PROGRAM

This technical diploma, Supply Chain Assistant, provides you with the basic skills needed to perform entry level work in supply chain management. This credential 'ladders' up the associate degree credential, Supply Chain Management. Words such as logistics, purchasing, or material management all encompass part of a supply chain. Supply chains are led and managed by people who enjoy working with others and analyzing data. Without supply chain management, you could not get the products or services you need every day. If you want to be a part of an ever-changing and growing field, supply chain management is for you, and this introductory credential, the Supply Chain Assistant Technical Diploma, can help get you started. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Implement Supply Management practices in a global environment.
- Demonstrate operations management techniques across product and service industries.
- Analyze logistic interfaces and activities in a supply chain.
- Evaluate demand management techniques and customer service policies.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
 - College Orientation Overview
 - 1st Time Program Registration

**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/transportation-distribution-logistics/supply-chain-assistant>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

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Catalog No.	Class Title	Credit(s)
Term 1		
10182131	Supply Chain Management*	3
10182108	Purchasing*	3
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
10182122	Logistics*	3
		17
Term 2		
10182114	Enterprise Resource Planning and Control*	3
10623118	Lean Manufacturing Overview*	3
10182102	Service Operations Management*	3
10801136	English Composition 1	3
		12

TOTAL 29

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ENTERPRISE RESOURCE PLANNING AND CONTROL...prepares the participant to interpret material requirements planning reports, build a master production schedule, construct capacity plans, and understand sales and operations planning. The curriculum is developed from the American Production and Inventory Controls exam certification's domain of knowledge.

LEAN MANUFACTURING OVERVIEW...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POUS, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. **COREQUISITE:** 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides the student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

LOGISTICS...introduces the student to business logistics, including the efficient and effective flow of goods, services, and related information from the point of origin to the point of consumption and provides a summary of the role and importance of transportation and an overview of carriers, carrier management, and technology and strategies in logistics.

PURCHASING...introduces the participant to basic purchasing, quality specifications, inventory control, supplier selection, price aspects, research and measurement, negotiation, and global purchasing. This course is exciting for anyone interested in working in a challenging and rewarding purchasing and supply chain management career.

SERVICE OPERATIONS MANAGEMENT...introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP) and supply chain management concepts in the service sector.

SUPPLY CHAIN MANAGEMENT...has been developed to provide a basic understanding of the planning and control of materials into, through, and out of organizations. In addition, those who want to become certified by APICS need a fundamentals course to learn about the material planning and control system. This course will provide a basis for further study leading to certification.

Program Number 10-182-1
Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Supply chains are everywhere in every business, service, or hospital. Other terms you may know describe specific parts of a supply chain. Words such as logistics, purchasing, or material management all encompass only a part of a supply chain. Supply chains are led and managed by people who enjoy working with others and analyzing data. Without supply chain management, you could not get the products or services you need every day. If you want to be a part of an ever-changing and growing field, supply chain management is for you. This program is offered in a partial Competency-Based Education (CBE) format, which allows students to work at their own pace.

PROGRAM OUTCOMES

- Implement Supply Management practices in a global environment.
- Demonstrate operations management techniques across product and service industries.
- Analyze logistic interfaces and activities in a supply chain.
- Evaluate demand management techniques and customer service policies.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
- Complete the online Student Success Questionnaire.
- Complete Get Started at Lakeshore appointment:
 - Application Check-in
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**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/transportation-distribution-logistics/supply-chain-management>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.

CONTACT

Lakeshore College Recruiter
920.693.1366 • Recruitment@lakeshore.edu

Catalog No.	Class Title	Credit(s)
Term 1		
10103121	Excel - Level 1*	1
10103191	Word - Level 1*	1
10182131	Supply Chain Management*	3
10182108	Purchasing*	3
10182160	Global Supply Chain Management*	3
10116109	Career Planning and Networking*	1
10801136	English Composition 1	3
		15
Term 2		
10196188	Project Management*	3
10182114	Enterprise Resource Planning and Control*	3
10623118	Lean Manufacturing Overview*	3
10182102	Service Operations Management*	3
10804189	Introductory Statistics	3
		15
Term 3		
10623110	Lean Six Sigma - Measure and Analyze*	4
10623111	Lean Six Sigma - Improve & Control*	4
10182110	Negotiations*	3
10182122	Logistics*	3
10801196	Oral/Interpersonal Communication OR 10801198 Speech (3 cr)	3
		17
Term 4		
10101155	Accounting for Professionals*	3
10623193	ISO 9001 Internal Auditor*	3
10182107	Portfolio Assessment-Supply Chain*	1
10809144	Macroeconomics	3
10809198	Introduction to Psychology	3
		13
		TOTAL 60

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

ACCOUNTING FOR PROFESSIONALS...is the study of the information that can be interpreted from financial statements. Students analyze financial statements and apply managerial accounting concepts in an accelerated format.

CAREER PLANNING & NETWORKING...focuses on the process of researching and pursuing professional career opportunities. Students will develop resume and cover letter documentation to accurately reflect personal, academic, and professional accomplishments and the connection that these elements have to various positions with employers. Interviewing skills will be a significant aspect of this experience with a focus on interviews for potential internship opportunities.

ENGLISH COMPOSITION 1...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. Discuss reading and writing academic course support with your Counselor.

ENTERPRISE RESOURCE PLANNING AND CONTROL...prepares the participant to interpret material requirements planning reports, build a master production schedule, construct capacity plans, and understand sales and operations planning. The curriculum is developed from the American Production and Inventory Controls exam certification's domain of knowledge.

EXCEL - LEVEL 1...introduces the student to spreadsheet features such as creating, saving, editing, navigating, formatting worksheets; entering formulas and functions; working with charts; and developing multiple-sheet workbooks.

GLOBAL SUPPLY CHAIN MANAGEMENT...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.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. Discuss reading academic course support with your Counselor.

INTRODUCTORY STATISTICS...prepares students to 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. Discuss math and reading academic course support with your Counselor.

ISO 9001 INTERNAL AUDITOR...is designed to introduce participants to the current ISO 9001 standard. The course is structured to provide a detailed review of the standards, how to document procedures, and how to perform audits. Students will practice preparation for and conducting audits in a local business. Successful completion of this course qualifies the student to receive the ISO 9001 Internal Auditor certificate (19-623-8).

LEAN MANUFACTURING OVERVIEW...expands the learner's ability to develop skills to prioritize and sequence work, execute work plans, implement controls, and create and analyze performance evaluations. It allows the student to explore the execution of quality initiatives and continuous improvement plans in addition to the control and handling of inventories.

LEAN SIX SIGMA - IMPROVE & CONTROL...provides the student with the skills and tools to select and implement solutions to solve problems and improve processes. An emphasis is placed on the use of statistical techniques in solution selection including correlation, regression, and statistical process control. Lean manufacturing methods including SMED, POK, cellular manufacturing, mistake proofing, TPM, 5S and visual management are practiced. Students learn how to create a control plan. COREQUISITE: 10623110 Lean Six Sigma -Measure & Analyze

LEAN SIX SIGMA - MEASURE AND ANALYZE...provides the student with skills and tools to collect and analyze data to solve problems and improve processes within an organization. Various techniques for process mapping are explored including SIPOC, FMEA, VSM, standard work sheets, and spaghetti diagrams. Statistical tools are explored including probability, confidence intervals, measurement systems analysis, hypothesis testing, and TAKT time analysis to create and implement a data collection plan.

LOGISTICS...introduces the student to business logistics, including the efficient and effective flow of goods, services, and related information from the point of origin to the point of consumption and provides a summary of the role and importance of transportation and an overview of carriers, carrier management, and technology and strategies in logistics.

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 the macroeconomy is analyzed. Discuss reading academic course support with your Counselor.

NEGOTIATIONS...is an exciting introduction into negotiations where the following topics will be discussed: nature of negotiations, framing, strategy, integrated negotiations, distributed negotiations, communication, perception, bias, leverage, ethics, global negotiations, and managing difficult negotiations. It is a must course for students desiring to exceed in business.

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. Discuss reading academic course support with your Counselor.

PORTFOLIO ASSESSMENT-SUPPLY CHAIN...prepares the student to identify what they have learned through the supply chain program, write career goals, re-examine their resume, research and collect project samples of their achievements, and analyze their achievements within the college core abilities.

PROJECT MANAGEMENT...introduces the learner to explore the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change.

PURCHASING...introduces the participant to basic purchasing, quality specifications, inventory control, supplier selection, price aspects, research and measurement, negotiation, and global purchasing. This course is exciting for anyone interested in working in a challenging and rewarding purchasing and supply chain management career.

SERVICE OPERATIONS MANAGEMENT...introduces the student to the basic coverage of the concepts and current issues in service operation management. Topics include the value equation in operations management; understanding services; building the service system; operating the service system; enterprise resource management (ERP) and supply chain management concepts in the service sector.

SUPPLY CHAIN MANAGEMENT...has been developed to provide a basic understanding of the planning and control of materials into, through, and out of organizations. In addition, those who want to become certified by APICS need a fundamentals course to learn about the material planning and control system. This course will provide a basis for further study leading to certification.

WORD - LEVEL 1...introduces the student to word processing features such as creating, saving, editing, navigating, and formatting the content of multi-page documents.

Program Number 10-499-5
Associate Degree in Applied Science • Varies

ABOUT THE PROGRAM

In response to requests for academic recognition of registered apprenticeship training in the state of Wisconsin, the Wisconsin Technical College System provides a Technical Studies - Journeyworker Associate Degree in Applied Science. The Technical Studies - Journeyworker degree is designed to support lifelong learning and accelerate the achievement of individual career goals. Transferability of the Technical Studies portion of this 60-credit associate degree to four-year institutions will be based on the accepting institution's policies.

ADVANCEMENT AS A JOURNEYWORKER

As people embark on the path to Journeyworker status in a skilled trade, they often consider the attainment of that card the culmination of their career training. In many cases, this may very well be true. However, in other cases, the holder of a journeyworker card may ask, "What's next?" They may be interested in becoming a business owner or expanding their studies to the bachelor's degree level. There are any number of possible options as one builds a career in the skilled trades. If your career path takes you on a route where a degree beyond the journeyworker card is necessary, then this degree is designed for you.

DEGREE COMPLETION REQUIREMENTS

- Possess a Wisconsin Apprenticeship Completion Certificate issued by the Department of Workforce Development—Bureau of Apprenticeship Standards.
- Complete all WTCS apprentice-related technical instruction with a minimum course grade of C. Possession of the DWD—BAS Wisconsin Apprentice Completion Certificate with at least 400 hours of paid related instruction AND successful completion of all coursework fulfills the 39-credit minimum technical studies requirement of the Technical Studies—Journeyworker Associate Degree in Applied Science.
- Meet the WTCS Associate Degree in Applied Science requirement for a minimum of 15 credits of General Education and 6 additional credits of either general education electives or Associate degree level Technical Studies.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

ADMISSIONS AND FIRST SEMESTER ENROLLMENT STEPS

- Submit online application.
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**Submit high school transcripts, college transcripts, and test scores (optional, highly recommended). Official transcripts will be needed for transferring college credit(s) and for financial aid purposes.*

ACADEMIC PREPAREDNESS/FUTURE SEMESTER ENROLLMENT STEPS

If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/technical-studies-journeyworker>.

APPROXIMATE COSTS

\$152.85 per credit tuition (WI resident) plus \$9.17 per credit student activity fee. Material fee varies depending on course. Other fees vary by program. Visit lakeshore.edu/Financial-Aid/tuition-and-fees for details.

FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

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Catalog No.	Class Title	Credit(s)
Occupational Specific		
10499100	BAS/BAT Apprenticeship Completion	39
General Education (21 Credits)		
	Communication: 6 Credits Required	6
	Social Science: 3 Credits Required	3
	Behavioral Science: 3 Credits Required	3
	Math OR Science: 3 Credits Required	3
	General Education Electives or Associate Degree Level Technical Studies: 6 Credits Required	6

TOTAL 60

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

BAS/BAT APPRENTICESHIP COMPLETION...requires the completion of a BAS approved apprenticeship which includes a minimum of 400 hours of paid related instruction.

Program Number 50-439-3
5-Year Contract
Work Hours (including related instruction): 10,000
Related Instruction Hours: 576 • Night School Hours: 8

ABOUT APPRENTICESHIP

Apprenticeships are employer-sponsored training programs. You must have a contract before being invited to school. A special application process is used for these programs. Please contact the Apprenticeship Office for the proper forms. Apprenticeship means you earn while you learn. If you want a career in a skilled trade, apprenticeship is the best way to get there. You'll combine on-the-job training with on-campus learning—you'll have the best of both worlds when it comes to learning the skills you need to get ahead. And even better, you'll earn a paycheck while you learn those skills.

ABOUT THE CAREER

Tool and die makers are vital to the metal-working industry because they produce the tools, dies, and special grinding and holding devices used in mass production. The Tool and Die Apprenticeship program is an employer-sponsored, hands-on training program. If you like working with mechanical technology/ manufacturing processes and you value and can work with exacting precision, your talents fit perfectly with a career as a journey-level tool and die maker.

CAREERS

Graduates of Lakeshore's Tool and Die Apprenticeship program work as journey-level tool and die makers in a variety of manufacturing/industrial settings.

INDUSTRIAL APPRENTICE ACCEPTANCE REQUIREMENTS

- Determined by employer
- Wisconsin Apprentice Contract

PROGRAM OUTCOMES

- Inspect parts and material.
- Apply knowledge of milling machine operations, including manual and/or CNC controlled.
- Apply principles of drilling machine operations, including manual and/or CNC controlled.
- Compare turning machine operations, including manual and/or CNC controlled.
- Explore precision grinding machine operations including manual and/or CNC controlled.
- Compare cut-off machine operations, including manual and/or CNC controlled.
- Apply metallurgical principles to materials and work processes.
- Compare practices for assembling parts per specifications.
- Design jigs and fixtures.
- Summarize practices to produce dies for a variety of machining and manufacturing operations.

APPROXIMATE COSTS

Contact the Lakeshore Apprenticeship office or visit www.lakeshore.edu/apprenticeship for detailed information.

SPECIAL NOTE

You must have a sponsoring employer and a contract before attending school.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

*Curriculum and program acceptance requirements are subject to change.
Program start dates vary; check with the Apprenticeship Office for details.
The tuition and fees are approximate based on 2025-2026 rates and are
subject to change prior to the start of the academic year.*

Catalog No.	Class Title	Credit(s)
Term 1		
50420714	Engineering Drawings for Machine Trades Apprentice 1	1
50420713	Precision Measurement for Machine Tool Trades	1
		2
Term 2		
50420734	Mathematics for Machinist Apprentice 1	1
50420715	Mechanical Hardware and Hand Tools for Machine Trades Apprentice	0.5
50420720	Materials and Cut-Off Machines for Machine Trades	0.5
		2
Term 3		
50420721	Math for Machine Trades 2	0.5
50420722	Engineering Drawings for Machine Trades 2	0.5
50420718	Drilling Machines for Machine Trades Apprentice	0.5
50420717	Milling Machines for Machine Trades Apprentice	0.5
		2
Term 4		
50420724	CNC Programming and Planning for Machine Trades	1
50420716	Turning Machines for Machine Trades Apprentice	0.5
50420723	Intro to CAM for Machine Trades Apprentice	0.5
		2
Term 5		
50420725	Basic CAD/CAM for Machine Trades Apprentice	1
50420726	Jig and Fixture Design for Machine Trades Apprentice	0.5
50420719	Grinding Machines for Machine Trades Apprentice	0.5
		2
Term 6		
50420733	CNC Operations for Machine Tool Trades Apprentice	1
50420727	Geometric Design and Tolerancing for Machine Trades	0.5
50420731	Metallurgy for Machine Trades Apprentice	0.5
		2
Term 7		
50420732	Electrical Discharge Machining for Machine Trades	1
50420728	Basic Stamping Die-making for Machine Trades	1
		2
Term 8		
50420730	Stamping Die Design Applications for Machine Trades Apprentice	1
50420729	Mold Making for Machine Trades Apprentices	1
		2
		TOTAL 16

BASIC CAD/CAM FOR MACHINE TRADES APPRENTICE...is designed to provide concepts and techniques used in computer-aided design (CAD) and computer-aided manufacturing (CAM) as part of their related instruction. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

BASIC STAMPING DIEMAKING FOR MACHINE TRADES...introduces the basics of stamping diemaking. Topics include basic terminology, blanking, piercing, bending and related basic operations. In addition, learners will discover the basics of the theory and background knowledge related to stamping diemaking. CONDITION: 504393 Tool and Die Apprentice program requirements met

CNC OPERATIONS FOR MACHINE TOOL TRADES APPRENTICE...will examine CNC related operations and safety. Course competencies include classifying types of equipment, comparing CNC tooling, setup, and work holding operations. Additional CNC programming skill development is included in the course. CNC controls and communications are explored as well. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

CNC PROGRAMMING AND PLANNING FOR MACHINE TRADES...is a classroom introduction to CNC programming for apprentices, with a focus on CNC turning and milling centers. Apprentices will create set up sheets, develop tool lists, calculate speeds and feeds, assign tool offsets and write CNC program. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program reqs met

DRILLING MACHINES FOR MACHINE TRADES APPRENTICE...focuses on safety, terminology, construction and operations of drilling machines in the metal-working industry. CONDITION: 504393 Tool & Die Appr or 504202 Machinist Appr prog reqs met

ELECTRICAL DISCHARGE MACHINING FOR MACHINE...is designed to give a basic understanding of the theory and process of sinker and wire EDM in toolmaking. This course uses the EDM Technical Manual distributed by POCO Graphite, Inc., which contains the most current information available in industry. CONDITION: 504393 Tool and Die Apprentice program requirements met

ENGINEERING DRAWINGS FOR MACHINE TRADES APPRENTICE 1...will acquaint the apprentice with the interpretation of engineering prints and other technical and manufacturing documentation. The primary focus of the course will be on that part of manufacturing most closely related to machining and tooling. Background information is provided relative to the process used to create and finish the product or piece part on the prints being studied. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

ENGINEERING DRAWINGS FOR MACHINE TRADES 2...prepares the learner to interpret manufacturing prints to extract detailed information about threads, sections, auxiliary views, fasteners, surface finishes, welding symbols, assembly, geometric location, and tolerances. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

GEOMETRIC DESIGN AND TOLERANCING FOR MACHINE TRADES...will acquaint the apprentice with the skills to interpret the geometric dimensions and tolerances found on engineering drawings and in other industrial documents. Instruction concentrates on interpreting the symbols, identifying tolerance zones and determining ways to check parts for conformity to the specified geometric controls. Reference is made to ASME Y14.5M-1994. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

GRINDING MACHINES FOR MACHINE TRADES APPRENTICE...focuses on the safety, terminology, construction, and operation of grinding machines in the metal working industry. It instructs apprentices in the use of traditional grinding machines and the attachments and accessories frequently encountered in manufacturing operations that use the common grinding processes. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

INTRO TO CAM FOR MACHINE TOOLS TRADES APPRENTICE...is widely used in industry for creating G&M code programs for CNC machines. In this course the learner will explore the Mastercam interface. You will be determining the proper post processors for the work being done. Create and edit basic geometry. Create and edit tool paths for basic operations. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

JIG AND FIXTURE DESIGN FOR MACHINE TRADE APPRENTICE...introduces the apprentice to the concepts of jig and fixture design as part of their apprentice related instruction. Topics include the basic elements of tool design, jig and fixture application, and the actual design of tooling. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATERIALS AND CUTOFF MACHINES FOR MACHINE TRADES...prepares the learner to identify metal composition and classification, follow cutoff machine tool safety rules, operate horizontal cutoff machine tools, and operate vertical machine tools. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATH FOR MACHINE TRADES 2...prepares the learner to interpret symbols used in algebraic expressions, solve equations by the rearrangement of formulas, use formulas, solve unknown angles using angular principles, and solve for the angles and length of sides in right triangles. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MATHEMATICS FOR MACHINIST APPRENTICE 1...provides applied mathematics instruction from a review of basic arithmetic; basic algebra; applications based on geometry; right triangle trigonometry and oblique angle trigonometry; and compound angles. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MECHANICAL HARDWARE & HAND TOOLS FOR MACHINE TRADES APPRENTICE...provides instruction for the apprentice in the recognition, selection, and operation of mechanical hardware and hand tools. Apprentices are taught to use outside sources to select correct component or tool sizes, characteristics, and operating parameters. Apprentices will sharpen drills and single point cutting tools. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program reqs met

METALLURGY FOR MACHINE TRADES APPRENTICES...prepares the learner to interpret the properties of ferrous and non-ferrous materials as well as how to heat treat and test the hardness of ferrous materials. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MILLING MACHINES FOR MACHINE TRADES APPRENTICE...will instruct apprentices on the basic principles of vertical and horizontal milling machines for the machine tool trade. Instruction includes safety, basic parts and functions of the machines, work holding devices, tooling requirements, and feeds and speeds. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

MOLD MAKING FOR MACHINE TRADES APPRENTICES...introduces the apprentice to the basic mold die making process consisting of mold construction, components, and materials. CONDITION: 504393 Tool and Die Apprentice program requirements met

PRECISION MEASUREMENT FOR MACHINE TOOL TRADES...is designed to acquaint the apprentice with the measurement systems and tools most frequently used in layout and machining processes. Learning outcomes relate to semi-precision through super-precision measuring tools and equipment combined with opportunities to investigate new technologies. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

STAMPING DIE DESIGN APPLICATIONS FOR MACHINE TRADES APPRENTICE...provides the stamping die maker apprentice with the opportunity to design from part specifications two elementary stamping dies. This course provides instruction for the tool and die, stamping die and mold makers apprenticeship. CONDITION: 504393 Tool and Die Apprentice program requirements met

TURNING MACHINES FOR MACHINE TRADES APPRENTICE...will acquaint the apprentice with the terminology, methods, and operations for turning machines used in the metal-working industry. Apprentices will learn to perform calculations needed to operate turning machines including speed and feed calculations. Apprentices will make calculations necessary to setup a turning machine for screw threads and taper operations. CONDITION: 504393 Tool and Die Apprentice or 504202 Machinist Apprentice program requirements met

**Program Number 32-457-1
Technical Diploma • Two Terms**
ABOUT THE PROGRAM

Develop the skills you need to pursue a great career in metal fabrication and welding. In this program, the learner will discover the wonderful world of welding and fabrication through the use of the three major electrical welding processes: Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW). Learners will weld in all positions preparing you for a career in many fields of work, including manufacturing, shipbuilding, custom fabrication and pipe welding. Learners will perfect their welding technique on mild steel, stainless steel and aluminum with a thickness range of 16 gauge up to one inch thick. Learners will perfect their weld quality techniques by using visual inspection and destructive testing. Throughout this program, the learner will apply math and print reading to today's industry standards. In this technical diploma, learners will set up, program, and use metal cutting and forming equipment to produce steel fabrication to industry specifications. Learners will be introduced to Lean manufacturing by applying their welding and fabrication skills in an automated fabrication cell to include robotic welding.

PROGRAM OUTCOMES

- Demonstrate industry recognized safety practices.
- Form materials to detailed drawings.
- Cut materials to detailed drawings.
- Join materials to detailed drawings.
- Layout components/assemblies.
- Inspect product.

CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

Lakeshore credits transfer to over 30 universities. For more information visit lakeshore.edu/future-students/transfer.

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If applicable, complete program-specific academic preparedness requirements and enrollment steps prior to enrolling in occupational or core courses. Students will be notified if there is a program waitlist. View the college's program webpage for details: <https://lakeshore.edu/programs-and-courses/career-areas/manufacturing/welding-fabrication-technician>.

APPROXIMATE COSTS

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FINANCIAL AID

This program is eligible for financial aid. Visit lakeshore.edu/Financial-Aid for more information.

SPECIAL NOTE

- Learn when you want. Progress at your own pace. Receive personalized coaching and support. The full CBE definition may be found at lakeshore.edu/cbe.
- Welding program course content prepares students for numerous state and national certifications. None are required to complete the program; there are additional costs for testing/certification. The College does not guarantee its curriculum matches the requirements for preparation, examinations, or licensure for other states.

CONTACT

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Catalog No.	Class Title	Credit(s)
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Term 1

10442100	Safety and Welding Fundamentals*	1
31442351	Precision Measurement and Layout*	1
31442350	Metal Manufacturing Processes*	1
31442310	SMAW-Flat Position (Stick)*	1
31420325	Manufacturing Math*	1
31442308	Weld Examination*	1
31442320	GMAW-Flat Position (Wire/Mig)*	1
31442322	GMAW-Horizontal Position (Wire/Mig)*	1
31442385	Weld Print 1 Print Fundamentals*	1
31442324	Flux Core Arc-Flat/Horizontal Position*	1
31442312	SMAW-Horizontal Position (Stick)*	1
31442314	SMAW-Vertical Position (Stick)*	1
31442316	SMAW-Overhead Position (Stick)*	1
31442326	Flux Core Arc-Vertical/Overhead Position*	1
31442304	Welding Submerged Arc (SAW)*	1
31442330	GTAW Mild Steel Flat/Horizontal Position*	1
31442332	GTAW Mild Steel Out of Position (Heli-Arc/TIG)*	1
31442334	GTAW Stainless/Aluminum Horizontal Positions*	1
31442336	GTAW Stainless/Aluminum Out of Position*	1
31442343	Weld Print 2 Weld/Welding Symbols*	1
31442318	Pipe Welding Fundamentals*	1
31442340	Welding Advance Process 1*	1
31442342	Welding Advance Process 2*	1
31442357	Welding Fabrication Introduction*	2
31801361	Interpersonal Skills*	1
31801360	Workplace Fundamentals*	1

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Term 2

31442301	Pipe Welding 1-Flat/Horizontal Positions*	1
31442303	Pipe Welding 2-5F/5G Positions*	1
31442305	Pipe Welding 3-6F/6G Positions*	1
31442325	Advanced Pipe Welding Processes*	1
31442307	Advanced Precision Measurement and Layout*	1
31420338	Drills and Saws*	1
31420350	Manual Mill Operation*	1
31420340	Manual Lathe Operation*	1
31442309	Weld Print 3 for Fabricators*	1
31442337	Weld Inspection and Processes*	1
31442339	Metal Finishing*	1
31420326	Manufacturing Applied Math*	1
10606151	Mechanical Drafting 1*	2
31457331	Fabrication 1-Manual Equipment*	2
31457333	Fabrication 2-CNC Press Brake and Laser	2
31457343	Fabrication 3-CNC Set up and Programming	2
31457335	Fabrication Design and Application	2
10620167	Robotics-Teach Pendant/Controls*	1
10620179	Robotics-Editing Programs*	1
31442327	Robotic Welding 1*	1
31442329	Robotic Welding 2*	1
10449114	Safety in the Workplace*	1

27
TOTAL 54

*CBE delivery only

Curriculum and program acceptance requirements are subject to change. Program start dates vary; check with your academic counselor for details. The tuition and fees are approximate based on 2025-2026 rates and are subject to change prior to the start of the academic year.

Please see Industrial Welding for Term 1 course descriptions.

ADVANCED PIPE WELDING PROCESSES...instructs the learner to weld a piping spool project. They will layout, cut, grind, bevel, fit and pressure test. The spool project will be welded using the GTAW, SMAW, GMAW and the FCAW processes. The learner will have the opportunity to test for the state certification in the 6G pipe position. The learner will choose either the SMAW or the GMAW/FCAW welding processes. All welding will be completed using welding practices and will be in accordance with the AWS and ANSI steel code. COREQUISITE: 31442305 Pipe Welding 3-6F/6G Positions

ADVANCED PRECISION MEASUREMENT AND LAYOUT...provides the learner with the skills to: Use precision hand held measuring tools and the use of semi-precision measuring tools, and use of layout and measurement tools to fabricate steel projects. PREREQUISITE: 31442351 Precision Measurement and Layout

DRILLS AND SAWS...prepares the learner to interpret the attributes of hole-producing tools, follow drilling machine safety rules, identify components, operate sensitive drilling machine, identify metal composition and classification, follow cutoff safety rules, operate horizontal and vertical cutoff machines.

FABRICATION 1-MANUAL EQUIPMENT...teaches the basics of metal fabrication safety, production, measuring, hand tools, and layout. Learn how to use shears, forming, press brakes, box and pan brakes, and slip rollers. Learners will demonstrate proficiency in metal fabrication through related projects. COREQUISITES: 31442307 Adv Precision Measurement and Layout and 31442309 Weld Print 3 for Fabricators

FABRICATION 2-CNC PRESS BRAKE AND LASER...teaches the advanced process of forming product using automated and manual equipment. Demonstrate proficiency of forming by choice of tooling, calculations and sequence of forming. COREQUISITES: 10606151 Mechanical Drafting 1 and 31457331 Fabrication 1-Manual Equipment or PREREQUISITE: 31442331 Fabrication 1

FABRICATION 3-CNC SET UP AND PROGRAMMING...teaches the advanced processes of material processing using automated and manual equipment. Demonstrate proficiency of CNC programming for automated Laser cutting processes. Demonstrate proficiency in laser cutting by proper set-up and shutdown, cutting conditions, program processing and gas selection based on material. COREQUISITE: 31457333 Fabrication 2-CNC Press Brake and Laser

FABRICATION DESIGN AND APPLICATION...will have learners set-up, program, operate, weld, assemble, inspect, and finish/coat to complete metal fabrication projects and provide shop routings to demonstrate comprehension of process control in a manufacturing facility. Maintain safety in the shop for all operations with hand tools and machinery. COREQUISITE: 31457343 Fabrication 3-CNC Set up and Programming

MANUAL LATHE OPERATION...prepares the learner to perform lathe facing, turning, hole producing and threading operations safely.

MANUAL MILL OPERATION...prepares the learner to perform squaring, slot milling and hole producing using a vertical mill machine safely.

MANUFACTURING APPLIED MATH...prepares the learner with the necessary skills to use scientific calculators for the application of algebra, geometry, and trigonometry. COREQUISITE: 31420325 Manufacturing Math

MECHANICAL DRAFTING 1...provides the learner with the skills to utilize AutoCAD's drawing editor, viewing commands; apply coordinate entry methods, AutoCAD file commands; utilize draw commands, modify commands; create and edit text, prints & plots; apply geometric construction to solve a drawing problem; utilize selection sets, duplicating modify commands, layers & objects properties, blocks; apply principles of orthographic and multi view projection.

METAL FINISHING...provides learning so that the student will develop and demonstrate skills needed to properly finish weldments. Surface finish is an important element in any specification of steel or alloys regardless of the intended use. Students will demonstrate proficiency in grinding and finishing procedures within given tolerances for surface finish and flatness.

PIPE WELDING 1-FLAT/HORIZONTAL POSITIONS...will have learners producing quality pipe welds in the flat and horizontal positions. Pipe to Pipe and Socket welds will be made by using Gas Metal Arc Welding, Shielded Metal Arc Welding and the Gas Tungsten Arc Welding processes. Learners will use WPS's (welding procedure specifications sheet) of pipe welding for mild steel in accordance with various welding codes. COREQUISITES: 31442326 Flux Core Arc-Vertical/Overhead Position, 31442316 SMAW-Overhead Position (Stick), and 31442336 GTAW Stainless/Aluminum Out of Position

PIPE WELDING 2-5F/5G POSITIONS...will have learners weld pipe to pipe and socket welds in the 4F, 5F, and 5G positions. Pipe to Pipe and Socket welds will be made by using the Flux Core Arc Welding, Shield Metal Arc Welding and the Gas Tungsten Arc Welding processes. Learners will use WPS's (welding procedure specifications sheet) of pipe welding for mild steel in accordance with various welding codes. COREQUISITE: 31442301 Pipe Welding 1-Flat Horizontal Positions

PIPE WELDING 3-6F/6G POSITIONS...will teach learners to weld pipe to pipe and socket welds in the 6F and 6G positions. Pipe to Pipe and Socket welds will be made by using the Flux Core Arc Welding, Shield Metal Arc Welding and the Gas Tungsten Arc Welding processes. Learners will use WPS's (welding procedure specifications sheet) of pipe welding for mild steel in accordance with various welding codes. COREQUISITE: 31442303 Pipe Welding 2- 5F/5G Positions

ROBOTIC WELDING 1...prepares the learner to perform basic robotic welding skills on the five major joints used in industry, how to load weld programs for their welding joints, and demonstrate safety practices associated with robotic welding. PREREQUISITE: 31620335 Introduction to Robotics 2 or COREQUISITE: 10620167 Robotics-Teach Pendant/Controls

ROBOTIC WELDING 2...builds upon learner's knowledge and skill of the world of robotic welding. In this course, students will learn how to weld around pipe that is 2" in diameter and larger, V-grooves and creating fixtures for different welding joints that will be used during this credit. COREQUISITES: 31442327 Robotic Welding 1 and 10620179 Robotics-Editing Programs

ROBOTICS-EDITING PROGRAMS...teaches troubleshooting and repairing issues in a robot program. COREQUISITE: 10620167 Robotics-Teach Pendant/Controls

ROBOTICS-TEACH PENDANT/CONTROL...instructs students on using a teach pendant to control a robot. COREQUISITE: 10620179 Robotics-Editing Programs

SAFETY IN THE WORKPLACE...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, and risk analysis, issues of workplace violence, substance abuse, and health hazards, first aid and CPR, fire and electrical safety, emergency preparedness, and liaison with external agencies.

WELD INSPECTION AND PROCESSES...will teach welding metallurgy, metal properties and destructive testing. The learner will demonstrate proper evaluation of weld and base metal discontinuities. The learner will be introduced to VT and other NDE methods. COREQUISITE: 31442307 Adv Precision Measurement and Layout

WELD PRINT 3 FOR FABRICATORS...prepares the learner to recognize and use pipe welding symbols, dual dimensioning, analyze metric units and how they can impact print reading. Inspection and Testing by the use of destructive testing symbols, and non-destructive testing symbols, understanding the International Standards symbols for welding, interpret Geometric Dimensioning and Tolerancing characteristic and symbols. COREQUISITE: 31442343 Weld Print 2 Weld/Welding Symbols

FLUX CORE ARC - VERTICAL/OVERHEAD POSITION......teaches the learner to use safe shop work practices while creating welds in the vertical and overhead positions. Learners will create fillet and groove welds in vertical and overhead positions. Students will be introduced to pipe welding while using the FCAW welding process. COREQUISITE: 31442324 Flux Core Arc-Flat/Horizontal Position

FLUX CORE ARC-FLAT/HORIZONTAL (WIRE/MIG)...will have learners demonstrate safe shop working practices while welding fillet welds in flat and horizontal positions using the FCAW welding process. Learners will perform single bevel groove welds and V-groove welds in flat and horizontal positions using the FCAW, and will perform groove welds with and without backing material. COREQUISITE: 31442322 GMAW-Horizontal Position (Wire/Mig)

GMAW-FLAT POSITION (WIRE/MIG)...prepares the learner to demonstrate safe shop work practices; learners will perform set up and shut down of GMAW and MCAW equipment; weld mild steel using the GMAW and MCAW welding processes, and weld in the flat position using the GMAW process. PREREQUISITE: 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding

GMAW-HORIZONTAL POSITION (WIRE/MIG)...will use safe shop work practices while producing 3/4" fillet welds using the GMAW and MCAW welding processes and 1/4" fillet welds while welding tube to plate in the horizontal position. Learners will produce groove weldments in flat and horizontal positions, using .035 hard wire, .052 Metal Core and Metal electrode wires. COREQUISITE: 31442320 GMAW-Flat Position (Wire/Mig)

GTAW MILD STEEL FLAT/HORIZONTAL POSITION...teaches the learner to use safe shop work practices while creating welds in the flat and horizontal positions. Learners will create fillet and groove welds in flat and horizontal positions on mild steel while using the GTAW welding process. PREREQUISITE: 31442300 Welding Intro or COREQUISITES: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding

GTAW MILD STEEL OUT OF POSITION...teaches the learner to use safe shop work practices while creating welds in the vertical and overhead positions. Learners will create fillet and groove welds in vertical and overhead positions on mild steel while using the GTAW welding process; Learners will be introduced to the GTAW Pulse welding process while welding mild steel in the 2F position. COREQUISITE: 31442330 GTAW Mild Steel Flat/Horizontal Position

GTAW STAINLESS/ALUMINUM HORIZONTAL POSITIONS...teaches the learner to use safe shop work practices while creating welds in the flat and horizontal positions. Learners will create fillet and groove welds in flat and horizontal positions on Stainless Steel and Aluminum while using the GTAWP/GTAW welding process. The learner will also learn how to minimize oxidation in stainless steel during the welding process, welding thin SST in the 1G & 2G positions and proper food grade post weld cleanup to these joints. COREQUISITE: 31442332 GTAW Mild Steel Out of Position (Heli-Arc/TIG)

GTAW STAINLESS/ALUMINUM OUT OF POSITION...teaches the learner to use safe shop work practices while creating welds in the vertical and overhead positions. Learners will create fillet and groove welds in vertical and overhead positions on Stainless Steel and Aluminum while using the GTAWP/GTAW welding process. Learners will be introduced to a welding technique called "walking the cup" and will make fillet welds in the 1F position on 1/4" mild steel. COREQUISITE: 31442334 GTAW Stainless/Aluminum Horizontal Positions

INTERPERSONAL SKILLS...prepares the learner to model interpersonal skills, ethics and diversity.

MANUFACTURING MATH...prepares the learner to use scientific calculators for the applications of common fraction and mixed number problems, decimal problems, inch and metric conversion problems, basic percentage problems, powers and roots, and pre-algebra problems.

METAL MANUFACTURING PROCESSES...prepares the learner to communicate using proper terminology that is used in industry as it pertains to the use of hand/power tools and measurement. The learner will demonstrate good safety practices while in a workplace environment, demonstrate the proper use of hand and power tools. The learner will complete steel fabrications using hand/power tools and classify and install industrial fasteners. The learner will be introduced to material handling operations by using the overhead crane and forklift.

PIPE WELDING FUNDAMENTALS...teaches the learner to use safe shop work practices while creating welds as it pertains to pipe welding. The learner will weld circumferential padding plates and groove welds in the flat position. Students will make 1/4" and 3/8" fillets in the 2F position while using the SMAW, FCAW and GTAW welding processes. Learners will weld T, Y, K connection welds in the flat and horizontal positions while using the SMAW, GMAW, FCAW and GTAW welding processes. COREQUISITES: 31442326 Flux Core Arc-Vertical/Overhead Position, 31442316 SMAW-Overhead Position (Stick), and 31442336 GTAW Stainless/Aluminum Out of Position

PRECISION MEASUREMENT AND LAYOUT...prepares the learner to communicate proper measurement terminology that is used in industry; will develop safety practices for the workplace while using measuring equipment; proper use of measuring equipment and obtain measurement readings from Measuring equipment; layout steel fabrication using hand measuring devices and layout equipment. The learner will inspect and analyze a variety of steel fabrications while using measuring equipment.

SAFETY AND WELDING FUNDAMENTALS...introduces the learner to the world of welding, weld shop safety practices, welding terminology, and welding machine setup to industry standards. Learners will be introduced to the three major welding processes: SMAW, GMAW, and GTAW and will build skills welding with each process in the flat and horizontal positions while using the common welding joints found in industry. The learner will process material using the two major handheld cutting processes - Oxyfuel and PAC.

SMAW-FLAT POSITION (STICK)...prepares the learner to demonstrate safe shop work practices; make bead on plate welds on mild steel; make padding plate welds on mild steel; make fillet welds in 3/8" mild steel plate in the flat position; and make groove welds in mild steel plate. PREREQUISITE: 31442300 Welding Intro or COREQUISITE: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding.

SMAW-HORIZONTAL POSITION (STICK)...teaches the learner to use safe shop work practices while creating welds in the horizontal position; make horizontal padding plate welds on 1/2" mild steel with E7018 electrode; 1/4", 3/8" and 3/4" fillet welds in the horizontal position, 1/4" fillet welds on round and square tubing; perform Groove welds in the horizontal position. COREQUISITE: 31442310 SMAW-Flat Position (Stick)

SMAW-OVERHEAD POSITION (STICK)...teaches the learner to use safe shop work practices while creating welds in the overhead position. Learners will create fillet welds and groove welds in the overhead position. Learners will be introduced to pipe welding while using the SMAW welding process. COREQUISITE: 31442314 SMAW-Vert Position (Stick)

SMAW-VERTICAL POSITION (STICK)...teaches the learner to use safe shop work practices while creating welds in the vertical position; Students will experience the art of welding in the vertical position. To understand the vertical position, students will perform padding plates and fillet welds in the vertical position; Groove welds in the vertical position. Groove welds will be with and without backing. COREQUISITE: 31442312 SMAW-Horizontal Position (Stick)

WELD EXAMINATION...is a study of the basic principles of weld quality. Emphasis will be on identifying and testing ferrous and non-ferrous materials. Learners will be introduced to hardening of ferrous material using the Oxyfuel process. The learner will be introduced to the inspection process of welds through NDT (non-destructive testing) and DT (destructive testing).

WELD PRINT 1 PRINT FUNDAMENTALS...prepares the learner to interpret manufacturing drawing by applying orthographic projection principles, by recognizing types of lines used in print reading, and how manufacturing prints are dimensioned. Develop print reading strategies by locating the bill of materials, title blocks, and revision blocks. Learners will be introduced to the AWS welding symbols and how they relate to manufacturing drawing.

WELD PRINT 2 WELD/WELDING SYMBOLS...prepares the learner to indicate key elements of a welding drawing, identify common joint types and edge preparations, correlate welds with basic joint types, distinguish between the different types of welds and their respective symbols, identify the location of a weld with respect to the joint using the elements included on a print and explain the rules governing the use of the arrow, reference line, supplementary symbols, and combined welding symbols. COREQUISITE: 31442385 Weld Print 1 Print Fundamentals

WELDING ADVANCE PROCESS 1...the learner will demonstrate safe shop working practices while welding out of position. The learner will perform V-groove welds in the 3G and 4G position using the SMAW, FCAW and GTAW welding processes. Students will perform CAC cutting and be introduced to dye penetrant testing. Students will create intermittent fillet welds in the horizontal position using the GMAW welding processes. COREQUISITES: 31442326 Flux Core Arc-Vertical/Overhead Position, 31442316 SMAW-Overhead Position (Stick), and 31442336 GTAW Stainless/Aluminum Out of Position

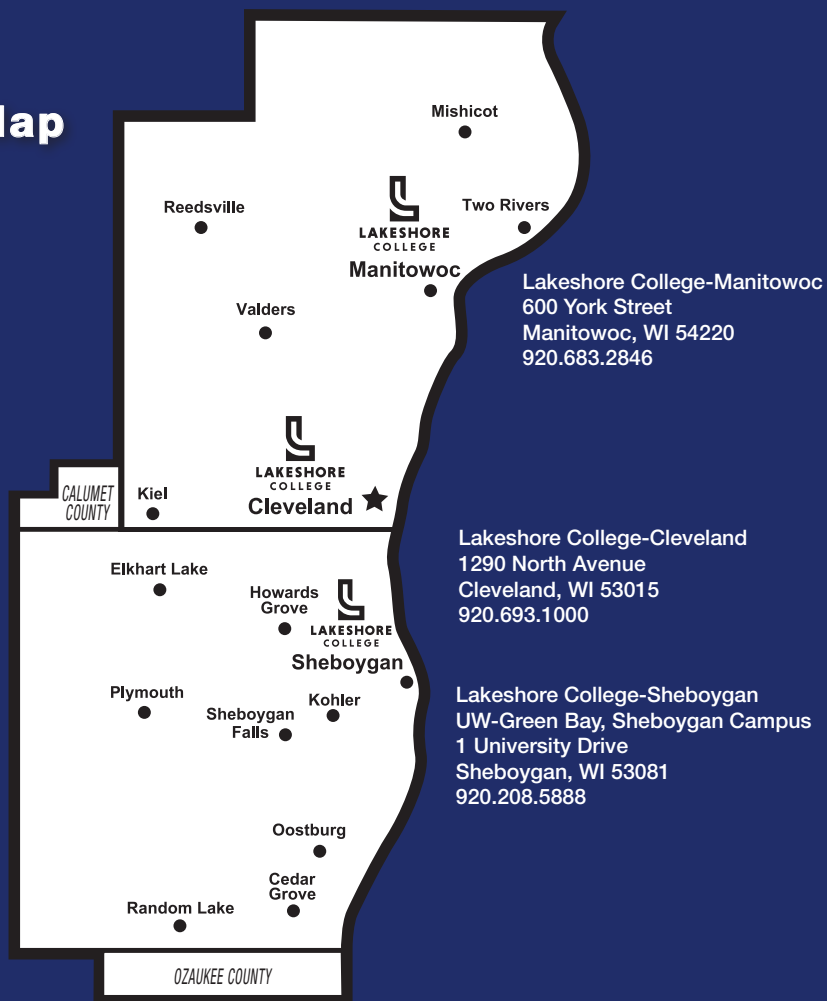
WELDING ADVANCE PROCESS 2...the learner will demonstrate safe shop working practices while welding out of position. The learner will perform V-groove welds in the 3G and 4G position using the SMAW, FCAW and GTAW welding processes. By creating these Grooves, the student will have an opportunity to become a certified welder with the AWS. Students will create staggered intermittent fillet welds in the 2F position using the SMAW welding processes. COREQUISITE: 31442340 Welding Advance Process 1

WELDING FABRICATION INTRODUCTION...introduces the learner to various methods of steel fabrication. The learner will produce steel fabrications from assembly drawings which would include the learner's ability to read and interpret simple drawings, create sketches using appropriate welding symbols, follow written procedures, and process materials parts to proper size to fit steel fabrications. Learners will be introduced to metal finishing techniques needed to complete steel fabrications. COREQUISITES: 31442385 Weld Print 1 Print Fundamentals and 31442342 Welding Advance Process 2 or 31442342S3 Welding Advance Process 1B (Stick) or 31442342M3 Welding Advance Process 1B (Mig) or 31442342T3 Welding Advance Process 1B (Heli-Arc/Tig)

WELDING SUBMERGED ARC (SAW)...is a common arc welding process. It requires a continuously fed consumable electrode. The molten weld and the arc zone are protected from atmospheric contamination by being "submerged" under a blanket of granular fusible flux. The learner will interpret SAW terminology, setup and shut down of SAW equipment, SAW weld safety; and perform SAW welds in the flat position. COREQUISITE: 31442326 Flux Core Arc-Vent/Overhead and PREREQUISITE: 31442300 Welding Intro or COREQUISITES: 10442100 Safety and Welding Fundamentals or 31442346 Industrial Maint Welding Intro or 31442345 Auto Servicing Welding

WORKPLACE FUNDAMENTALS...prepares the learner to incorporate problem solving, creativity and communication skills into daily workplace habits.

District Map



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