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College Overview

Blackhawk Technical College can lead you anywhere you want to go. It’s a not a dream; it’s a reality. BTC grads have gone on to attend Harvard University, work for Fortune 500 companies, and start their own businesses. And that’s just the beginning.

BTC is a forward-thinking, proactive college that believes in real-world experiences and hands-on training in a diverse atmosphere. Our long-term goal is to redefine what a technical college is, through flexible scheduling, a range of program offerings, partnerships with local employers, and world-class facilities with high tech equipment – including some you won’t find anywhere else in the state.

For more than 100 years, BTC has hosted a breadth of opportunity offering a large assortment of associate degrees, technical diplomas, certificates, apprenticeships, and non-postsecondary offerings. In addition, the college now has more than 70 transfer agreements and 10 new, short-term career pathway certificates that can be completed in just one semester.

Whether you’re a new student just starting out or someone who is returning to school, BTC’s talented faculty and staff are committed to providing you an education that will help you define what’s next in your academic or professional career.

History and Development

The State of Wisconsin established a Board of Vocational and Adult Education in 1911, six years before the use of federal funds for the promotion of vocational, technical and adult education.

As a result of this law, the cities of Beloit and Janesville took the steps necessary to establish vocational schools in their communities. These two schools have developed to form the nucleus of the present technical college system district which includes Blackhawk Technical College.

In 1965, the State of Wisconsin enacted a law designed to broaden the vocational, technical and adult education opportunities for youth and adults through the inclusion of the entire state into districts by July 1, 1970. The Beloit and Janesville schools, along with the major portions of Rock and Green Counties, were organized into a single system on July 1, 1968.

Blackhawk Technical Institute, so named following this reorganizational process, became a reality. In August, 1987, along with the other 15 state technical institutes, Blackhawk Technical Institute became Blackhawk Technical College.

Our Mission, Vision and Philosophy

Our Mission:

Empower our Students ~ Enrich our Communities

Our Vision:

Blackhawk Technical College is a valued and integral partner in a prosperous and vital region.

These are the Guiding Principles that will guide our actions, activities and decisions as a college:

Community Focus
We seek to understand and respond to the needs of our district’s students, employers, and citizens.

Partnerships
We make the best use of our resources by working collaboratively with community business, education, economic and nonprofit partners.

Transparent Communication
We communicate clearly and frequently so that information flows vertically and horizontally through the organization.

Accountability
We accept responsibility for our actions and we follow through on our agreements.

Campus Community
We create an inclusive college community where all students and employees feel welcome and supported in achieving their goals.

Interdependence
We recognize that we are interconnected both within our college and with the communities we serve and consider both intended and unintended consequences of our decisions and actions.

Data-Informed Decisions
We appropriately use both qualitative and quantitative data in making decisions.

Forward Focused
We are focused on the future and ready to move in new and innovative ways.

The faculty, staff and administration at Blackhawk Technical College believe that access to quality education and relevant hands-on experience is the first step to professional and personal success in any endeavor.

While the institution realizes that the acquisition of occupational skills is critical to determining success, it also recognizes that today’s working environment demands social, scientific and interpersonal skills to help the student function in personal, social and cultural dimensions. Therefore, BTC recognizes the valuable contribution to personal and professional success made through its General Education course offerings.

Finally, BTC recognizes that no education or experience takes place in a vacuum; rather, quality living demands that the educational process recognize the value of the individual and the unique contribution that each person makes to society. As a result, the college seeks to maintain a high level of flexibility in its response to the individual training needs of every person enrolling in its programs.

BTC’s commitment to educational excellence is reflected in the adoption of a Guaranteed Retraining Policy.
The education and training offered at BTC is designed to enable students to acquire job entry occupational skills needed for full participation in the workforce. BTC stands behind the training provided and will guarantee to provide at least six (6) additional credits of retraining, at no cost to the student, under certain conditions. Contact Student Services for more information.

**Strategic Goals**

The goal of BTC's Strategic Plan is to make Blackhawk a much more vital and highly prized asset of Southern Wisconsin. More specifically:

- Be enthusiastically appreciated by our community - high school students, parents, teachers and counselors, adult learners, employers, legislators, policy makers.
- Focus on a few key benefits to impress our key audiences.
- Build the strategy around the flexible delivery of educational content, meeting students when and where they have an opportunity to learn, and supporting them with services that enable them to succeed.
- Obtain energetic and passionate input from students, staff, administration, adjunct faculty, full-time faculty, the ECIC, high school guidance counselors and area employers.
- Establish five three-year strategic objectives.

2017-20 Strategic Plan (http://catalog.blackhawk.edu/college-overview/strategic-objectives/2017-2020_StratPlan_Final_Approved.pdf)

Master Strategic Plan Task/Gantt Chart (http://catalog.blackhawk.edu/college-overview/strategic-objectives/Master_Strategic_Plan_Task_Gantt_Chart_2017-2020_Retreat_Final.pdf)

**Core Abilities**

Historically, in many career and technical education programs, the focus has been on technical topics specific to the occupational area. Today's fast-paced global marketplace is demanding more, and "soft skills" are emerging in importance. In today's global workforce, soft skills are more directly related to professional success than ever before.

The faculty of Blackhawk Technical College has identified seven related topics of soft skills, or "core abilities" that are crucial to success both during school and after graduation. These core abilities, based on input from employers, students and other members of the community, are skills and competencies that will enable students to be successful in the workplace. These essential skills are taught across programs and departments so that all Blackhawk Technical College students work toward improving and applying these critical soft skills.

In as much as core abilities are important for students, they should also reflect the actions of all College staff. The College core abilities were originally developed to define the expectations of graduates from all of BTC's programs, serving as a common thread to unify all divisions as well as to contribute to student success. It is now the expectation that all BTC staff members model these same core abilities to reinforce the importance of soft skills in their workplace.

Listed below are BTC's seven college-wide core abilities and their indicators.

**Communicate Professionally**
- Demonstrate communication standards specific to occupational area.
- Write professionally.
- Speak professionally.
- Interpret professional documents.
- Demonstrate critical listening skills.
- Communicate using professional non-verbal behavior.

**Use Appropriate Technology**
- Select equipment, tools and resources to produce desired results.
- Demonstrate proper and safe usage of equipment.
- Demonstrate occupational specific computer skills.
- Adapt to new technology.
- Use security measures to protect confidentiality.

**Work Effectively in Teams**
- Participate in identifying team goals.
- Respect the contributions and perspectives of all members.
- Work with others.
- Complete assigned tasks.
- Motivate team members.
- Resolve conflicts.
- Assess team outcomes.

**Demonstrate Professional Work Behavior**
- Follow policies and procedures.
- Meet attendance expectations.
- Manage time effectively.
- Dress appropriately.
- Accept constructive feedback.
- Take initiative.
- Work productively.
- Be accountable.
- Demonstrate organization/prioritization skills.
- Demonstrate effective customer service skills.
- Transfer learning from one context to another.
- Adapt to change.

**Show Respect for Diversity**
- Respectfully interact with diverse groups.
- Treat everyone without bias.
- Seek information when necessary to effectively interact with others.
- Adapt to diverse situations.
- Demonstrate respect and common courtesy.

**Solve Problems Efficiently**
- Identify a problem to be solved.
- Select appropriate problem-solving methodologies.
- Recognize and gather relevant information.
- Apply mathematical reasoning.
Lead by Example

- Recognize leadership qualities in others.
- Demonstrate legal and ethical standards of practice.
- Create and share a vision.
- Develop and implement a plan to accomplish a goal.
- Manage conflict, pressure and change with constructive strategies.
- Be a colleague/peer others depend on.
- Acquire the knowledge needed for success.
- Bring passion and energy to your work/project.
- Take risks when necessary or appropriate.

College Facilities

Blackhawk Technical College has been able to substantially upgrade all of its major facilities through community support over the past decade.

Advanced Manufacturing Training Center

The Advanced Manufacturing Training Center, a 105,000 square feet, state-of-the-art facility, is located in Milton:

15 Plumb St.
Milton, WI 53563

The latest BTC campus opened in August 2014 and the second phase of construction was completed in August 2015. The facility is home to the Advanced Manufacturing division which provides Associate Degrees, Two-Year and One-Year Technical Diplomas and Certificates. Curricula includes Welding, Computer Numerical Control, Industrial Maintenance Technician, Computer Service Technician, Manufacturing Information Technology Specialist, Electro-Mechanical Technology, Electrical Apprenticeship, and Heating, Ventilation, Air Conditioning and Refrigeration (HVAC). General Education classes required for these programs also are offered at the center.

The facility is 17.7 miles north of BTC's Central Campus and easily reached off Interstate 39-90 at the Hwy. 26, Milton, exit. The campus also is linked to the four other BTC sites by the BTC Shuttle system. The building is open from 7 a.m. to 9 p.m. Monday through Thursday, and 8 a.m. to 5 p.m. Friday. Call (608) 758-6900 for further information.

Central Campus

Blackhawk Technical College Central Campus is midway between Beloit and Janesville at:

6004 S. County Rd. G
Janesville, WI 53547

Situated on over 80 acres of partially wooded prairie, the campus is home for most of BTC's programs and services. This comprehensive technical college facility comprises over 200,000 square feet and houses many program offerings with instructional classrooms and labs. The Central Campus also offers a technical library, media production and telecommunications center, bookstore and food service with seating for 600. Seminar and teleconferencing facilities are also available.

A Student Center is available with offices for guidance, admissions, registration, financial aid, veterans’ affairs, and minority student services. Vocational and placement testing, career and professional development, and student activities are available through the new Student Success Center. Learning centers, also located at the Central Campus, provide pre-college individualized courses, skills brush-up, academic tutoring and services for students with disabilities.

Parking for approximately 1,200 vehicles, is available on the Central Campus, and bus service from Beloit and Janesville is also provided for students’ convenience. Building hours are 7 a.m. to 10 p.m., Monday through Thursday, 7 a.m. to 5 p.m., Fridays and 7:30 a.m. to 2 p.m. on Saturday. Contact the Central Campus at (608) 758-6900.

Monroe Campus

The Monroe Campus of Blackhawk Technical College is located just off Hwy. 11 at:

210 4th Ave.
Monroe, WI 53566

This friendly, full-service and handicapped accessible campus has computer labs equipped with state-of-the-art computer equipment, a distance learning lab designed for global classroom connections, fully equipped medical assistant, phlebotomy and science labs, and general classrooms. The campus offers select associate degrees, one-year diplomas and short-term certificates, as well as general education courses. A learning center offers GED/HSED, and pre-college courses and GED/HSED testing services. Continuing education courses covering a broad range of topics are offered each year at the campus. An advisor provides students with academic advising, support and career planning assistance. Small class size and a personalized learning environment ensure the success of Monroe Campus students. Building hours are 8 a.m. to 9 p.m. Monday through Thursdays and 8 a.m. to 4:30 p.m. Friday. Contact the Monroe Campus at (608) 328-1660.

Business Hours

The general operating hours of Blackhawk Technical College are 7:30 a.m. to 10 p.m. Monday through Thursday; 7:30 a.m. to 5:00 p.m. Friday; and 8 a.m. to 1 p.m. Saturday. However, hours may vary for an individual department or division, outreach campuses or centers. In addition, hours are modified during the summer months. If in question, contact the department or campus/center to confirm their hours before your commute to that site. Visit us online at http://www.blackhawk.edu
Sustainability (Recycling)

Blackhawk Technical College is participating in a voluntary recycling program. Your assistance is needed to make BTC’s recycling program a success. Located throughout the facilities you will find paper, trash, and aluminum containers. Please use them. In addition, please remember that classroom trash receptacles are for paper only. Do not place other types of items in those receptacles—use the containers in the hallway. Your help and cooperation is needed and appreciated as we all work together to protect our environment.

College Accreditation

Blackhawk Technical College is accredited by the Higher Learning Commission (HLC). The HLC is a regional accreditation agency that accredits degree granting institutions of higher education that are based in the 19-state North Central region of the United States. Institutions that HLC accredits are evaluated against HLC’s Criteria for Accreditation (http://policy.hlcommission.org/Policies/criteria-for-accreditation.html), a set of standards that institutions must meet to receive and/or maintain accredited status.

Regional accreditation agencies are recognized by the U.S. Department of Education to accredit degree granting colleges and universities. There are six regions of the U.S. in which regional agencies operate. The regional accreditation agencies have similar standards for accrediting colleges and universities.

Higher Learning Commission
230 South LaSalle Street Suite 7-500
Chicago IL 60604-1411
800.621.7440
info@hlcommission.org

The AQIP Pathway

The Academic Quality Improvement Program (AQIP) is one of three options institutions have for maintaining accreditation with HLC. Like the other pathways, it is focused on quality assurance and institutional improvement, but with an added emphasis on helping institutions achieve continuous quality improvement. The AQIP Pathway follows an eight-year cycle. Blackhawk Technical College was accepted into AQIP on December 15, 2005.

For more information about AQIP at BTC, please go to http://www.blackhawk.edu/CollegeInformation/Accreditation.aspx

Programs Accreditation

- Accreditation Commission for Education in Nursing (ACEN)
- American Culinary Federation
- American Refrigeration Institute/Partnership for Air Conditioning, Heating, Refrigeration Accreditation
- Commission on Accreditation of Allied Health Education Programs (CAAHEP)
- Commission on Accreditation in Physical Therapy Education (CAPTE)
- Commission on Dental Accreditation/American Dental Association
- Department of Justice
- Joint Review Committee on Education in Radiologic Technology
- National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
- National Automotive Technicians’ Education Foundation (NATEF)
- National Institute for Automotive Service Excellence (ASE)
- WI Department of Health Services

State and Federal Compliance

The Blackhawk Technical College Board actively complies with all state and federal equal opportunity and affirmative action laws, rules, executive orders and policies, including Titles VI and VII of the Civil Rights Act, Title IX of the Educational Amendments Act of 1972, section 50A of the Rehabilitation Act of 1973, the Age Discrimination Acts of 1967 and 1975, the Equal Pay Act of 1973, the Civil Rights Restoration Act of 1987, the Americans With Disabilities Act of 1990 and the Civil Rights Act of 1991. It is the policy of the Blackhawk District not to discriminate on the basis of age, race, creed, color, religion, handicap, disability, marital status, sex, national origin, ancestry, arrest or conviction record, sexual orientation, political affiliation, genetic testing, or membership in the national guard, state defense force or any reserve component of the military forces of the United States or this state. The District prohibits discrimination against students in admission and/or participation in services, programs, courses, and facilities usage based upon race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status, or parental status. Inquiries regarding equal opportunity may be directed to:

Affirmative Action Officer
6004 S. County Road G, P.O. Box 5009
Janesville, Wisconsin 53547-5009
(608) 757-7773

Civil Rights Legislation

Services, financial aid and other benefits of Wisconsin Technical College System institutions are provided on a non-discriminatory basis as required by Civil Rights legislation.

Individuals applying for or receiving assistance through these colleges who believe that there has been any discrimination on the grounds of race, color, creed, sex, disability, national origin, sexual orientation, ancestry, age, pregnancy or marital status should file a written complaint.

If it is felt that this discrimination is on the part of the Wisconsin Technical College Board, the complaint should be sent to:

State Director
Wisconsin Technical College Board
310 Price Place, P.O. Box 7874
Madison, Wisconsin 53707
(608) 266-1207

If it is felt that the discrimination is on the part of Blackhawk Technical College, the complaint should be sent to:

Affirmative Action Officer
Blackhawk Technical College
6004 S. County Road G, P.O. Box 5009
Janesville, Wisconsin 53547-5009
(608) 757-7773
Title IX

Title IX of the Educational Amendments of 1972 protects people from discrimination based on sex in education programs and activities that receive federal financial assistance. The College is bound by, and supports, all applicable laws. The Title IX of the Higher Education Act of 1972 ensures the College does not discriminate on the basis of sex in its education programs and the Campus Sexual Violence Elimination Act (SAVE) of 2013 and Violence Against Women Reauthorization Act (WAWA) ensures that colleges and universities implement policies and programs to prevent sexual assault, dating violence, domestic violence, and stalking.

What if something happened or I think something happened?

Students, staff and/or witnesses are encouraged to direct violence, harassment, assault, or other Title IX questions, concerns, and complaints to the Title IX Coordinator or an appropriate college employee who is available. If a Title IX Coordinator is alleged to be the person who engaged in discrimination or sexual misconduct, the report may be filed with another of the named officers or with the office of the Office of the President, Central Campus. Financial aid and other benefits of Wisconsin Technical College System institutions are provided on a non-discriminatory basis as required by Civil Rights legislation. Find out more here (https://public.blackhawk.edu/mybtc/StudentSuccessCenter/TitleIXStudentInformation.pdf).

Contacts:
Lynn Neitzel, Title IX Coordinator/Director – Manager - Teaching Support Services
Central Campus, (608) 743-4508, lneitzel@blackhawk.edu

Alicia Acker, Deputy Coordinator for Students/Student Engagement Specialist
Central Campus, Room 2209, (608) 743-4423, aacker@blackhawk.edu

Brian Gohlke, Deputy Coordinator for Employees/Executive Director/Chief Human Resources Officer
Central Campus, (608) 757-7773, bgohlke@blackhawk.edu

Complaints can also be filed with the Office of Civil Rights (OCR). The OCR encourages complaints to follow the College’s process prior to filing a complaint with OCR, however, it is not required. Generally, complaints must be filed with OCR within 180 days of the alleged event. Complaints can be filed with OCR via email at ocr@ed.gov and by completing an electronic complaint form at http://www2.ed.gov/about/offices/list/ocr/complaintintro.html

Sources of Funding

The postsecondary and adult vocational education programs at BTC anticipate receiving federal funding in 2017-18. These federal funds represent approximately six percent of the total projected operational costs for postsecondary and adult vocational education programs at BTC.

Important Dates

Important academic dates, financial aid deadlines, student or public events, professional development seminars and workshops, or even employer events call all be accessed year-round by going to the BTC Calendar (https://blackhawk.edu/About/News-Events/Event-Calendar).
ADMISSION

Education is the best return on investment you will ever make. A degree, certificate, technical diploma, apprenticeship or non-postsecondary offering (GED, HSED, ELL) from Blackhawk Technical College will increase your earning potential, enrich your life, enhance your skills, and broaden your perspective. Whether you’re planning to step directly into a career, or transfer to a four-year institution, BTC is the best place for you to start.

BTC graduates leave college ready to take on the world and lead with integrity, honor and distinction. Since opening our doors more than 100 years ago, BTC has continually hosted a breadth of opportunity with a wide range of offerings.

From day one, our focus will be on your individual academic and professional growth. We strive to blend classroom experiences with real-time, hands-on learning because our graduates tackle some of the world’s toughest problems – from the skills gap, to helping rebuild southern Wisconsin. We teach. We explore and we discover. We innovate, inspire and empower. We achieve our potential and create circumstances that help our students and others achieve theirs.

For more information or to contact someone directly in the BTC Admission Department, call (608) 757-7710.

How to Apply

Blackhawk Technical College maintains an open-door admissions policy for all prospective students. This means that anyone may enroll in courses to learn new skills or improve existing skills. Admissions requirements vary from program to program, but generally include submitting the following materials:

Application

• Application-Apply Online here. (https://blackhawk.elluciancrmrecruit.com/Admissions/Pages/Welcome.aspx)

Transcripts

• Request official copies of all academic transcripts, including high school, GED, HSED, college or university. Contact each institution and ask to have your official transcripts mailed directly to the Admissions Office. If you choose to have the transcripts mailed to you, do not open the envelope – they are not official if the envelope has been opened.

• If you are still in high school, send a transcript of the courses you have completed along with a list of the courses to be taken prior to graduation. When you graduate, ask your high school to send a final transcript, showing your date of graduation.

• Transcripts (https://www.blackhawk.edu/Request-Transcripts) will be evaluated for credit transfer after you have been admitted to the college. This process may take up to 6 weeks.

Acceptance

Once students submit the application, official high school transcripts and any/all official college/university transcripts, students will be accepted to BTC.

Next Steps

Testing

Following your acceptance to the college, your first step toward completing the registration process is to take a placement test. Placement tests help us check the academic skill levels of entering students. This requirement is waived if you submit transcripts showing you have earned an Associate or Bachelor Degree from an accredited institution. New students can either:

• Take the Accuplacer (https://blackhawk.edu/Admissions/After-Youre-Admitted/Placement-Testing) exam

  • The Accuplacer test is FREE and no appointment is needed to do the exam. Students can retest one time for $10.

  • Please bring a valid student ID.

• Or submit your official copy of your ACT or SAT scores

Advising & Registration (AR) Session

Once you have either submitted your ACT or SAT scores, or taken the placement exam, the next step is to attend an Advising and Registration Session. We will send you a link to your personal and BTC email allowing you to sign up for an AR Session. This AR session will include meeting your advisor, planning and creating an academic plan and registering for classes (https://blackhawk.edu/Admissions/After-Youre-Admitted/Registering-for-Courses). Additional information regarding financial aid, payment plans, books, tools and supplies will be discussed.

Pay Tuition and Fees

Paying your tuition and additional fees can happen at any time during the registration process, however many new students pay after they have registered for classes. If you need financial assistance, our Paying for College (https://blackhawk.edu/Paying-for-College) page can provide you more information about financial aid (https://blackhawk.edu/Paying-for-College/Financial-Aid), payment plans (https://blackhawk.edu/Paying-for-College/Payment-Options-Due-Dates), scholarships (https://blackhawk.edu/Paying-for-College/Scholarships-Awards) and other types of awards (https://blackhawk.edu/Paying-for-College/Scholarships-Awards). Please note, you will not be able to attend class if you have not paid your tuition or set up a payment plan.

Welcome Week

Once you have completed your placement exam, attended an Advising and Registration Session and paid your tuition, the final step before starting classes is to attend Welcome Week (https://blackhawk.edu/Admissions/After-Youre-Admitted/Welcome-Week).

Testing/Assessment

All steps must be completed to be accepted into BTC.

Students complete an admission placement test (https://www.blackhawk.edu/Admissions/After-Youre-Admitted/Placement-Testing) as part of the application process to the college. These scores are utilized to determine appropriate course placement. BTC offers the Accuplacer assessment for free, unless students have earned either an Associate Degree’s, Bachelor’s Degree, or completed the ACT Exam. Any re-test fees must be paid and a receipt presented prior to taking a test. Accuplacer is an untimed assessment taken on computer that measures skills in reading, language usage, and numerical skills. Accommodations
for the Accuplacer are available in the Student Success Center by calling (608) 743-4422, deaf/hh call Relay 711.

**Accuplacer Retest Policy**

Retesting is an option if students believe their scores do not accurately reflect their abilities and skill levels.

**Admission Retest:**

- After reviewing the admission test scores, students may retest in each area ONCE utilizing Accuplacer.
- Students who have completed Accuplacer as part of the admission process MUST wait 48 hours after their first Accuplacer exam before retesting.
- There is a fee to re-test. For information contact the Testing Center at (608) 757-7666.

**Course Placement Retest:**

- Students re-testing for course placement may do so after successful completion of their current one.
- Further re-tests will require approval from the approved faculty and/or staff (i.e. dean, director)

*Students with scores older than 3 years are strongly encouraged to re-test for accurate course placement.*

**Health Science Assessments**

The programs listed below have additional assessment requirements for clinical readiness. Please see a Program Advisor for program/clinical-ready requirements.

- Diagnostic Medical Sonography
- Medical Assistant
- Nursing Assistant
- Nursing
- Physical Therapist Assistant
- Radiography

**Make-Up Testing**

Make-up testing is a service provided for students who have been absent and are being allowed to complete an exam per the course instructor. The following rules will be followed for all testing:

- A valid photo ID is required for all testing (i.e. state ID, drivers license, passport, student ID, other IDs approved by testing staff.

**Educational Agreements**

A joint educational agreement exists between Rock Valley College (Rockford, IL), Highland Community College (Freeport, IL) and BTC. These agreements expand the programs available to BTC District residents. A list of approved programs is available at the Student Services Office or on the website. [https://blackhawk.edu/Programs-Classes/Transfer-After-BTC](https://blackhawk.edu/Programs-Classes/Transfer-After-BTC)

In addition to BTC’s partnerships with other area two-year schools, Blackhawk has partnered with the following four-year colleges and universities to offer Bachelor Degree completion opportunities:

- Alverno College
- Ashford University
- Bryant & Stratton College
- Capella University
- Cardinal Stritch University
- Carroll University
- Chamberlain College
- Colorado State University Global Campus
- Columbia College
- Concordia University
- Franklin University
- Grand Canyon University
- Herzing University
- Lakeland College
- Marian University
- Marquette University
- Milwaukee School of Engineering
- Mount Mary University
- Northland College
- Ottawa University
- Purdue University NW-Hammond
- Rasmussen College
- Saint Anthony College of Nursing
- Silver Lake College
- University of Phoenix
- UW Collaborative Nursing
- UW - Eau Claire
- UW - Green Bay
- UW - La Crosse
- UW - Madison
- UW - Milwaukee
- UW - Oshkosh
- UW - Platteville
- UW - River Falls
- UW - Rock County
- UW - Stevens Point
- UW - Stout
- UW - Superior
- UW - Whitewater
- Upper Iowa University
- Viterbo University
- Western Governor’s University

**High School Partnerships**

**Youth Apprenticeship**

The Wisconsin Youth Apprenticeship (YA) program is a state-wide initiative funded by the WI Department of Workforce Development for high school juniors and seniors. The program integrates school-based and work-based learning to instruct students in employability and occupational skills. As youth apprentices, students are enrolled...
in academic classes to fulfill high school graduation requirements in addition to 2-4 semesters of technical courses, which can be offered at the local high school, worksite or Blackhawk Technical College. The last component of the YA program is a paid work experience in the student's chosen industry under the guidance of a skilled mentor. Students are encouraged to contact their YA school-based coordinator or the BTC Youth Apprenticeship Specialist at (608) 757-7729 for more information.

**High School Articulation**

Articulation agreements grant high school students the opportunity to earn technical college credit while enrolled in high school, saving students (and parents) time and money while giving students a head start on their college degree. Articulation provides a smooth transition from high school to postsecondary education without the duplication of coursework.

Blackhawk Technical College and high schools in Rock and Green Counties provide opportunities for high school students to earn college credit through advanced standing or transcripted credit articulation agreements.

High school students receive Blackhawk Technical College credit for high school courses with an advanced standing agreement after enrollment and approval of the student's final high school transcripts showing the student received a final grade of "B" or better. Credit for the course is entered onto the student's Blackhawk Technical College transcript.

High school students receive Blackhawk Technical College credit for high school courses with a transcripted credit agreement when the student registers for the credit at the beginning of the course, successfully meets the requirements of the course and receives a final grade of "C" or better. The student will have a Blackhawk Technical College transcript with college credits and grades before they graduate from high school.

Students are advised to check with their high school counselor or the BTC Early College Specialist at (608) 757-6983 for articulation opportunities in their high school.

**Youth Options - College Credit for HS Students**

If you are a motivated and academically qualified high school junior or senior, you may be eligible to take technical college credit courses under Youth Options while still in high school. This is a good way to get a head start on earning credit for college, and still earn credits for your high school diploma.

Youth Options eligibility requirements:

- You must be enrolled at a public high school and have completed 10th grade.
- You do not have a history of disciplinary problems and are not a "child-at-risk".
- You are in good academic standing, and meet course entry requirements.
- You have the written approval of your parent or guardian.
- You must notify your school district by March 1 for fall enrollment and October 1 for spring enrollment.

Talk to your high school counselor for more information.

**International Students**

Blackhawk Technical College is authorized to issue I-20s for students attending under F-I visas. However, enrollment of foreign students is based on space availability. BTC is not authorized to issue I-20s to students for the study of the English language or for programs considered high demand. International students are not considered Wisconsin residents and are required to pay out-of-state tuition. Requirements for admission include:

- Application to a credit program.
- TOEFL score of 500 (paper version), 173 (computer version) or 61 (Internet-based version) or better.
- Satisfactory placement test - Accuplacer or ACT.
- Secondary and post-secondary transcripts.
- Financial support verification.
- International student forms.
- Deposit toward tuition for the program in which student seeks to enroll.
- Students wishing to transfer - verification of good academic standing (Grades of C or better and a GPA of 2.0 on a 4.0 scale).

Issuance of an I-20 is contingent upon meeting all admission requirements.

For additional information, contact the Admission Office at (608) 757-7710.
PAYING FOR COLLEGE

Paying for tuition is a significant concern for most students. Blackhawk Technical College continually strives to provide options for those who may be struggling or who have questions. The following offices or groups are available to help students overcome the challenge of paying for college.

- Financial Aid (https://www.blackhawk.edu/Paying-for-College)
- BTC Foundation (https://www.blackhawk.edu/About/Foundation)
- Veterans Educational Benefits (https://www.blackhawk.edu/Paying-for-College/Veterans-Benefits)
- Registration (https://www.blackhawk.edu/Admissions/After-Youre-Admitted)

In addition to the contacts above, this catalog provides information about the expenses incurred at the college followed by some specific possibilities, and educational benefits for veterans.

Tuition and Fee Payment

Tuition and fees are established annually by the Wisconsin Technical College System in conjunction with the Wisconsin State Legislature. The current tuition rate is $134.20 per credit hour (please note, other fees may apply to this amount). For a complete listing of costs, please see the program cost sheet (https://www.blackhawk.edu/Paying-for-College/Tuition-Fees/Cost-by-Program).

You can pay your tuition and fees using one of the four methods below.

1. **Pay in Full:** Pay the full amount of tuition and fees by cash, check, MasterCard, VISA, or Discover at time of registration.

2. **Tuition Payment Plan Available Using TouchNet**
   Payment plans are available at: http://blackhawk.edu/RegistrationRecordsOffice.aspx
   All payment plans require a non-refundable service charge. You will be billed for outstanding balances. In some cases, a hold will be placed on your account in an effort to alert you that your attention to a matter is required. Such holds can impact your ability to register, get official transcripts, diplomas, or access Library resources until they are resolved.

   Failure to make the payments at the time that they are due may cause you to be dropped from all of your pre-college and credit courses for that semester. You may re-register for classes should this happen, however you may not be allowed to establish another payment plan for that semester.

3. **Financial Aid:** You must have completed your FAFSA (Free Application for Federal Student Aid). Once the application is completed and a valid student aid report (SAR) is released to BTC, you can defer payment of your tuition and fees until you receive your award letter and financial funds are received. You will be sent a monthly invoice until tuition is paid in full. Your outstanding balance will be paid as the financial aid is received. If financial aid does not cover the entire balance due, you will be responsible for payment of the balance due.

4. **Agency/Employer Funding:** If written authorization from an agency or employer is on file, you will be able to defer payment of tuition and fees. The sponsor will be billed for the authorized costs. If the sponsorship does not cover the entire amount of the tuition and fees, you will be responsible for paying the remaining balance.

**Collection Issues:** If you are late paying the outstanding balance, a hold will be placed on your account. You will not receive official transcripts or diplomas, and will not be allowed to register for additional classes until all balances are paid. Starting thirty-one (31) days into the semester, a 30-day notice and possibly a 60-day notice will be sent to remind you of an outstanding balance. Failure to make payment after receiving the notification(s) will result in a late charge of $25.00 being assessed to your account. In addition to the late charge, your account may be referred to a collection agency or for legal action. In an effort to receive payment, the collection agency will be authorized to notify the State of Wisconsin’s Tax Refund Intercept Program.

**Out-of-State Tuition**

Applicants who do not reside in Wisconsin and enroll in a program which is not covered under one of BTC’s reciprocity agreements will pay higher tuition (https://www.blackhawk.edu/Paying-for-College/Tuition-Fees). A limited number of waivers may be granted. Paperwork for waivers is available in Student Services.

**Financial Assistance**

Financial aid provides money to help meet college expenses. Filling out the Free Application for Federal Student Aid (FAFSA) determines eligibility for assistance.

If you need help or have questions, please call the Financial Aid office at (608) 757-7664 or toll free at (800) 498-1282, ext. 7664.

There are several types of financial aid available for students.

**Pell Grant**

A Federal Pell Grant, unlike a loan, generally does not have to be repaid. Federal Pell Grants are awarded only to undergraduate students who have not earned a bachelor’s or a professional degree. Federal Pell Grants may be available to students attending school full-time, three-quarter time, half-time and less than half time.

Amounts can change yearly. The amount will depend on

- Results of the FAFSA
- Status as a full-time, three-quarter time, half-time or less than half time student
- Number of semesters attended – Fall, Spring and Summer

Federal Pell Grant funds are available at only one school at a time. The Federal Pell Grant is for no more than 12 full-time semesters or the equivalent (roughly six years). The Department of Education will send a notice to the student if the limit is approaching.

**Supplemental Education Opportunity Grant (SEOG)**

The SEOG program is available to students with financial need enrolled in at least six credits. Individuals must qualify for a Pell Grant to be eligible. Assistance is $200 per year. Funds are limited. Registration for summer semester may be awarded at less than three credits if funds are available.

**Federal Work Study**
Work-study provides part-time jobs for undergraduate students with financial need enrolled in at least six credits. If eligible, a student may work a maximum of 20 hours per week on campus, or off campus. Funds for work-study are paid directly to the student based on the number of hours worked. Job performance is a factor in continuing in work-study positions. Summer work-study may be available for those who qualify.

Federal Direct Loans

Direct Loans are low-interest loans for students to assist in paying for the cost of a student’s education. Students must be enrolled at least half-time (six credits) to qualify. First-time borrowers are required by federal regulations to complete entrance loan counseling and sign a master promissory note (MPN).

Students may be eligible for subsidized (interest free) and/or unsubsidized loans. A subsidized loan is based on need, determined by the FAFSA, whereas unsubsidized loans are not based on need.

PLUS loans are federal loans for parents of dependent undergraduate students to help pay education expenses.

State of Wisconsin Assistance

For current information and more details on the below Wisconsin state programs go to: http://www.heab.state.wi.us/programs.html

Wisconsin Grant

The Wisconsin Grant program provides a grant to supplement the Pell grant program. To qualify, the student (and parent if dependent student) must be a Wisconsin resident for at least one year and have financial need based on the FAFSA. The Higher Educational Aids Board (HEAB) of Wisconsin determines eligibility based on the FAFSA application. Students must be enrolled at least half-time (six credits) in a degree or certificate program in order to be eligible.

Minority Undergraduate Retention Grant (MRG)

The Minority Undergraduate Retention Grant (MRG) is available to minority students who qualify through HEAB. Students must be enrolled in their second year of a two-year program, be a U.S. citizen (or eligible non-citizen), and show financial need based on the FAFSA.

Talent Incentive Program (TIP)

The Talent Incentive Program is available to educationally disadvantaged, Wisconsin resident and first-year freshman college students. A student must be nominated by the school financial aid office or by counselors of the Wisconsin Educational Opportunity Programs (WEOP).

Indian Student Assistance Grant

The Indian Student Assistance Grant is available to students who are at least 25 percent Native American and show financial need. The application is available at http://www.heab.state.wi.us/programs.html.

Hearing and Visually Handicapped Student Grant

This Hearing and Visually Handicapped Grant provides funding for undergraduate Wisconsin residents who show need and have a severe or profound hearing or visual impairment. The application is available at http://www.heab.state.wi.us/programs.html.

Private Scholarships

Many outside private scholarships are available at the Private Scholarships Page (https://www.blackhawk.edu/Paying-for-College/Scholarships-Awards).

Other Grants or Scholarships

There are a number of other grants and scholarships available through the Blackhawk Technical College Foundation, Inc (https://www.blackhawk.edu/About/Foundation). Individuals are encouraged to check with those offices located on the Central Campus for further information.

Veterans/Military Programs

Federal Department of Veteran Affairs

A variety of programs are available if you have served in the military or are in the Reserves or National Guard. Dependents of disabled or deceased veterans may be eligible for benefits also. Military spouses may also be eligible for education benefits. For the latest information about Veterans education benefits through the Federal Department of Veteran Affairs (i.e. Montgomery GI Bill, Post 9/11 Bill), go to www.gibill.va.gov (http://www.gibill.va.gov) or call (888) 442-4551.

WI Department of Veteran Affairs

State programs in the form of tuition and fee reimbursement may be available for Wisconsin veterans. National Guard members may be eligible for the National Guard Tuition Grant. For more information about Wisconsin Veteran education benefits, go to http://dva.state.wi.us or call Rock County Veteran Service Office at (608) 757-5552 or Green County Veteran Service Office at (608) 328-9415.

Veteran Benefits at Blackhawk Technical College

Once you have determined you are eligible to receive veteran education benefits and you would like to use them at BTC, you must:

- Notify the BTC VA Certifying Official of the benefits you are eligible to receive and your intent to use them at BTC
- Be accepted into and attending courses in a program approved for veteran benefits
- Be taking courses within your degree requirement
- Maintain academic progress within your program of study

For more information call (608) 757-7716.

Student Consumer Information

Schools are required to provide a variety of Consumer Information to students. This includes information such as Campus Crime and Safety Disclosure, Drug and Alcohol Abuse Prevention Program, Placement/Employment statistics, Gainful Employment and Retention and Graduation Rates. The Student Consumer Information can be found on the BTC website under College Information, Student Consumer Information.

Disbursement of Financial Aid

All financial aid is disbursed through the Accounting Office. If the combination of grants and loans exceeds tuition and fees, a refund will
Applying for Financial Aid

Financial aid provides money to help meet college expenses. Find out if you are eligible for financial aid by following the below steps.


2. Submit your Free Application for Federal Student Aid (FAFSA) at http://www.fafsa.gov.
   a. The application for the new school year becomes available October 1 every year.
   b. For priority processing, complete the FAFSA by February 1 every year.
   c. School ID – 005390
   d. FAFSA must be completed for every school year.

3. If you have any questions or need help filling out the FAFSA, call the Financial Aid Office at (608) 757-7664 or toll free at (800) 498-1282 ext. 7664.

4. You are also welcome to stop by the Financial Aid Office on Central Campus for assistance. The Financial Aid staff is available at other locations periodically; please call if you would like those dates and times.

Blackhawk Technical College Foundation Scholarships

The Blackhawk Technical College Foundation offers several internally-administered scholarships for students meeting specific criteria. Internal scholarship opportunities are available to students twice annually on October 1st and May 1st deadlines. Scholarships are awarded based on merit, financial need and the answer to scholarship application questions.

Some scholarships have specific program enrollment or other requirements; however, all students, regardless of program-of-study, are eligible for scholarship funding through the BTC Foundation. Specific scholarships are listed below with their respective criteria.

Only one application, unless stated otherwise, needs to be completed in order to be eligible for all internally-administered scholarships. The scholarship application can be found by clicking here: http://www.blackhawk.edu/Alumni/BTCFoundation/ScholarshipForms.aspx

All Programs of Study

Alpha Kappa Delta Scholarship
Blackhawk Tech Faculty Federation Scholarship
BTC Foundation Awards
Francis & Barbara Stauner Memorial Scholarship
Fred & Vera Jess Memorial Scholarship
Freedom Plastics Foundation Scholarship
Golden K Kiwanis Scholarship
Goodwill Industries Scholarship
Harry Spohnholtz Memorial Tools Scholarship (separate application)
Janesville Noon Rotary Scholarship
Diversity Scholarship
Mielke Memorial Scholarship
The Storage Haus Scholarship

Accounting
Daniel J. Hartstern Memorial Scholarship
JP Cullen & Sons Scholarship

Administrative Professional
JP Cullen & Sons Scholarship

Agribusiness
GROWMARK, Inc. Scholarship

Automotive Technician
Hank Dikkeboom Memorial Tools Scholarship (separate application)

Business Management
Daniel J. Hartstern Memorial Scholarship

Certified Nursing Assistant
Wini Babler Memorial Scholarship

Helpful Websites

http://www.blackhawk.edu - Blackhawk Technical College Website
http://www.fafsa.gov – Website to complete your Financial Aid Application
https://fsaid.ed.gov/npas/index.htm - Website to set up your user name and password for Financial Aid Website
http://www.finaid.org – Informational Website for Financial Aid
http://www.nslds.ed.gov – Website to view Student Loan amounts and Pell Usage

Satisfactory Academic Progress

Students receiving financial aid must make Satisfactory Academic Progress (SAP) toward the completion of course requirements. To view the SAP policy for Blackhawk Technical College, please go to: http://www.blackhawk.edu/financialaid.aspx.

Return of Title IV Financial Aid

Federal Law states that if you receive Federal Financial Aid and withdraw, drop-out, stop attending or receive failing grades in your classes, you may have to return some Federal Aid that you received. Failure to attend classes may require you to repay 100% of all the aid you received for the classes you did not attend. To view the Return of Title IV policy for Blackhawk Technical College please go to: http://www.blackhawk.edu/financialaid.aspx.

Book Charge Information

Bookstore charges allow a student to charge their books to their excess financial aid at the BTC Bookstore. Bookstore charges are available a week before school starts and goes two weeks into the semester. For more information on bookstore charges please go to http://www.blackhawk.edu/financialaid.aspx.
CNC
Alliant Energy/IBEW Scholarship
Hank Dikkeboom Memorial Tools Scholarship (separate application)
Kuhn North America Scholarship
Women with a Vision Scholarship (separate application)

Criminal Justice
Grainger Tools for Tomorrow Scholarship (separate application)
Wes Story Memorial Scholarship
Women with a Vision Scholarship (separate application)

Culinary
Bill Flatt Memorial Scholarship
BTC Culinary Arts Externship Awards
Kerry Ingredients Culinary Arts Scholarship

Diesel & Heavy Equipment Technician
Hank Dikkeboom Memorial Tools Scholarship (separate application)

Electric Power Distribution
Alliant Energy Scholars Program
Hank Dikkeboom Memorial Tools Scholarship (separate application)

Electro-Mechanical Technology
Alliant Energy/IBEW Scholarship
BlueScope Buildings Scholarship
Grainger Tools for Tomorrow Scholarship (separate application)
Women with a Vision Scholarship (separate application)

Fire Protection
Olson Family Scholarship
Wes Story Memorial Scholarship
Women with a Vision Scholarship (separate application)

HVAC/Refrigeration
Dave Jones, Inc.
Hank Dikkeboom Memorial Tools Scholarship (separate application)

Industrial Maintenance
Hank Dikkeboom Memorial Tools Scholarship (separate application)

Information Technology
JP Cullen & Sons Scholarship
Women with a Vision Scholarship (separate application)

Law Enforcement Academy
Women with a Vision Scholarship (separate application)

Manufacturing Information Technology
JP Cullen & Sons Scholarship
Women with a Vision Scholarship (separate application)

Medical Lab Technician
Wisconsin Hospital Association Foundation Scholarship
Women with a Vision Scholarship (separate application)

Nursing
40 et 8 Nursing Scholarship
Dody Murray Memorial Scholarship
James McWayne Memorial Award

Judy Meidl Memorial Scholarship
Lois Jacobs Scholarship
Lou Chalk Memorial Award
Wini Babler Memorial Scholarship
Wisconsin Hospital Association Foundation Scholarship
Women with a Vision Scholarship (separate application)
Violet Radel Memorial Award

Nursing Assistant
Wini Babler Memorial Scholarship

Physical Therapy Assistant
Olson Family Scholarship
Wisconsin Hospital Association Foundation Scholarship
Women with a Vision Scholarship (separate application)

Radiography, Sonography & Digital Imaging
K. Eugene & Judith Bostian Scholarship
Olson Family Scholarship
Wisconsin Hospital Association Foundation Scholarship
Women with a Vision Scholarship (separate application)

Welding
Alliant Energy/IBEW Scholarship
BlueScope Buildings Scholarship
Hank Dikkeboom Memorial Tools Scholarship (separate application)
Kuhn North America Scholarship
Monroe Truck Equipment, Inc. Scholarship
POLICIES

BTC's campus, academic and community policies define what the college expects from the students and what students may expect from BTC. College polices are developed and approved through the BTC's governance system.

For additional student policy information, please refer to the BTC Student Handbook.

Attendance

Attendance is critical to students' academic progress at BTC. Attendance expectations may differ from course to course; however, students are expected to be present, prepared, and be active participants in classes throughout the entire course. Students should discuss absences with instructors. The attendance policy for a particular course will be shared in class and/or will be included on the course syllabus.

Full-Semester Courses

If you fail to attend any course sessions during the first two weeks of the course, you will be considered as non-attending. If you are marked as a non-attendee you will be dropped from the course and an 80% refund will be provided.

If you are receiving financial aid, be aware that failure to attend classes may affect your financial aid.

8-Week and Accelerated Courses

If you fail to attend any course sessions during the first week of the course, you will be considered as non-attending. If you are marked as a non-attendee you will be dropped from the course and an 80% refund will be provided.

If you are receiving financial aid, be aware that failure to attend classes may affect your financial aid.

Auditing Classes

Students may audit a credit class with the consent of the appropriate Dean or Division Administrator. The decision to audit must be made at the time of registration. Students taking a class for audit may not change to credit, nor may students change from credit to audit after the class begins. Students are only permitted to register to audit a course one week prior to the start of each semester. If a student repeats a course, it must be for credit and all course objectives must be met.

When auditing a class, students participate in the class work, complete assignments, and meet the instructor’s attendance requirements. Students with disabilities are expected to have a special adaptation plan in place which may waive some of the course requirements. If students elect to audit, they will pay all of the regular tuition and fees. However, no credit will be granted for the course. An "AU" will appear on the student’s transcript as a grade for the course. Tuition will be waived for students 60 and older. However, all other fees will be charged.

Background Checks

Wisconsin Caregiver Background Check

Wisconsin law requires background checks of persons who provide care for others or have access to people who receive care. This law applies to Blackhawk Technical College students in the following programs:

- Dental Assistant
- Diagnostic Medical Sonography & Vascular Technology
- Early Childhood Education
- Emergency Medical Technician
- Medical Assistant
- Medical Laboratory Technician
- Nursing
- Nursing Assistant
- Pharmacy Technician
- Phlebotomy
- Physical Therapist Assistant
- Radiography

Criminal convictions as well as arrests and/or pending charges may limit a student's ability to participate in clinical/practicum courses. Further, a criminal background could have a negative impact on certification examination eligibility and employability in health care facilities.

Once completed, Blackhawk Technical College, its employees, and agents will provide a copy of the student’s signed State of Wisconsin Background Information Disclosure (BID) form and information obtained from the Caregiver Background Check to assigned clinical/practicum affiliation sites. This information will be used in determining eligibility and suitability for clinical placement.

Criminal Justice Background Checks

For the Law Enforcement Academy, Basic Corrections Academy and Secure Juvenile Detention Academy, the Department of Justice will complete background checks unless the candidate has already been hired by a law enforcement/corrections agency. If they have already been hired, the agency that sends them to the academy will complete the background check.

Additionally, Law Enforcement Academy candidates’ driving records will be checked to determine if the college will allow them to operate college owned vehicles.

Children on Campus

Children may not be brought and left unattended, for any reason, in any of BTC's buildings or facilities (including parking lots and surrounding areas). Children will also not be allowed in classrooms and instructional areas during the scheduled classes. Children are defined as minors under the age of 18 who are not enrolled in programs or courses at the College. Children found unattended in BTC facilities will be turned over to authorities for appropriate action. Parents need to make adequate arrangements for the care of children while attending classes.
Course Age Limit Policy

Policy on Age Limits on Courses

Blackhawk Technical College (BTC) does not apply blanket age limits to courses for the purpose of BTC program completion, transfer in, meeting selective admissions, program's ranking/entrance procedures, or meeting program requirements in award completion. Approved age limits on courses will be related to the competency(ies) students/graduates must demonstrate in the field, employment, and other measures such as certification examinations.

Courses included in an earned degree, whether from BTC or another institution, are exempt from the age limits listed below.

Approved time limits on applicability of courses to program admission and completion is available in program admission documents and on program-specific web pages. The college does reserve the right to deny prior coursework if significant changes in the area of study have occurred, or if current knowledge is necessary for student success.

For example, computer coursework or allied health courses may have changed significantly and may no longer satisfy degree requirements due to changes in technology or professional practices.

APPROVED AGE LIMITS FOR TRANSFER IN OF COURSES

<table>
<thead>
<tr>
<th>BTC Program and Courses</th>
<th>Year Limit (date approved by Dean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Math and Science Courses</td>
<td>5 years</td>
</tr>
<tr>
<td>All Clinical and Lab. Courses (Health Science)</td>
<td>1 year</td>
</tr>
<tr>
<td>CST/MITS—Computer Service Technician/Manufacturing Information Technician Specialist</td>
<td>5 years</td>
</tr>
<tr>
<td>Criminal Justice Studies</td>
<td>5 years</td>
</tr>
<tr>
<td>IT-Network Specialist</td>
<td>5 years</td>
</tr>
<tr>
<td>IT-Web Software Developer</td>
<td>5 years</td>
</tr>
<tr>
<td>MLT—Medical Laboratory Technician</td>
<td>5 years</td>
</tr>
<tr>
<td>Nursing Assistant</td>
<td>5 years, unless currently employed as a Nursing Assistant</td>
</tr>
</tbody>
</table>

Grading Procedures

Your grade point average (GPA) is computed by multiplying the point value of each grade by the credit value designated for each course. The sum of these figures is divided by the number of credits. A minimum of 2.0 GPA is needed to maintain satisfactory academic standing and is required for graduation. GPAs are figured on a 4.0 scale. The point equivalents are listed below. It is the student’s responsibility to consult with his/her instructors as to his/her progress.

Grade Point Values

<table>
<thead>
<tr>
<th>Grade</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Grade Chart Example

<table>
<thead>
<tr>
<th>Course No. Example</th>
<th>Course Name</th>
<th>Letter Grade</th>
<th>Credit Hours</th>
<th>Multiplied by</th>
<th>Numeric Grade Value (Chart Above)</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXX1</td>
<td>English - First Year Composition</td>
<td>A</td>
<td>3</td>
<td>x</td>
<td>4.00</td>
<td>12.00</td>
</tr>
<tr>
<td>XXXX2</td>
<td>English - Technical Writing</td>
<td>B</td>
<td>3</td>
<td>x</td>
<td>3.00</td>
<td>9.00</td>
</tr>
<tr>
<td>XXXX3</td>
<td>Small Group Communication</td>
<td>B+</td>
<td>3</td>
<td>x</td>
<td>3.33</td>
<td>9.99</td>
</tr>
<tr>
<td>XXXX4</td>
<td>Critical &amp; Evaluative Reading 1</td>
<td>A-</td>
<td>3</td>
<td>x</td>
<td>3.67</td>
<td>11.01</td>
</tr>
<tr>
<td>XXXX5</td>
<td>The Mathematics of Design</td>
<td>A</td>
<td>3</td>
<td>x</td>
<td>4.00</td>
<td>12.00</td>
</tr>
<tr>
<td>XXXX6</td>
<td>Economics in American Society</td>
<td>B-</td>
<td>3</td>
<td>c</td>
<td>2.67</td>
<td>8.01</td>
</tr>
<tr>
<td>XXXX7</td>
<td>Contemporary Art</td>
<td>A-</td>
<td>3</td>
<td>x</td>
<td>3.67</td>
<td>11.01</td>
</tr>
<tr>
<td>XXXX8</td>
<td>General Biology (Non-Majors)</td>
<td>C+</td>
<td>4</td>
<td>x</td>
<td>2.33</td>
<td>9.32</td>
</tr>
</tbody>
</table>

| TOTALS             |                                   |              | 25           |               |                                   | 82.34        |

82.34 total points / 25 total credit hours = 3.29 GPA
Pre-Requisites/Co-Requisites

Certain classes may require that students take particular courses prior to (pre-requisite) or in conjunction with (co-requisite) other classes. Students must successfully complete these courses in order to move forward in their selected program. In accordance to policy beginning in the summer of 2011, a grade of "C" or higher is required for a pre-requisite. Some classes have more stringent requirements and students will be notified of these requirements through course syllabi and discussions them with their academic advisors or instructors.

Failure to obtain a "C" or higher in any pre-requisite courses will result in students being administratively dropped by the college from the course(s) that requires the pre-requisite. Students are notified of this change through BTC student email. Charges on the student's BTC account for the course(s) being dropped will be reduced to zero.

Registering for Classes

Registering is the process of enrolling for specific classes. Students must be registered for all classes they attend. Registration is necessary in order for an official record to properly reflect a student's participation in educational activities.

A student does not have a guaranteed seat in a class unless all fees have been paid or a payment agreement has been established. It is the student's responsibility to keep informed of all registration requirements and procedures. By registering for courses, a student accepts responsibility of all fees. Non-attendance does not constitute a cancellation of that obligation, nor does it officially withdraw a student from the class.

Continuing students will register for the next semester's classes before new students. This gives continuing students the first opportunity to enroll in the courses needed to complete program requirements. A registration schedule will be available to provide specific procedures to be followed, including the date and time of registration, estimated cost, and other applicable information. Students are strongly recommended to register on-line by using their MyBTC account.

Online Registration

A student may register if he/she has been previously enrolled (within the last 185 days) or is currently enrolled and has a student identification number and password. To register online, go to http://www.blackhawk.edu. At the top of blackhawk.edu, click on the Online Services pulldown from the main navigation, then select MyBTC. Once MyBTC is open, go to the Registration and Courses link to sign up for classes.

A Note to New Students

New students must apply for admission at BTC in order to set up an account to register online. Once an account set up is completed, a student ID number and password is required to activate the online account. This information, along with other important computer service materials, is included within each BTC Acceptance Letter.

In-Person Registration

In person registration is available at the Central Campus and Monroe Campus.

At the Central Campus, you may register in person during the hours listed below:
Monday-Tuesday: 8:00 a.m. to 6:30 p.m.*
Wednesday–Friday: 8:00 a.m. to 4:30 p.m.*

At the Monroe Campus, you may register in person during the hours listed below:
Monday-Thursday: 8:00 a.m. to 9:00 p.m.*
Friday: 8:00 a.m. to 4:30 p.m.*

* Summer hours vary.

Registration by Mail

Complete the website registration form at http://www.blackhawk.edu. From the menu on the opening page, choose "Registering for Classes" in the STUDENTS section listed at the bottom of the page. Send the completed form with credit card information or a check made payable to Blackhawk Technical College for the exact amount of fees listed in the schedule. Send to:

Express Services
Blackhawk Technical College
P.O. Box 5009
Janesville WI 53547-5009

Registration by Fax

Dial (608) 743-4407 for Central Campus or (608) 329-8215 for Monroe Campus to fax a completed registration form along with a MasterCard, Visa or Discover card information. In order for BTC to bill an employer, a letter of authorization for billing must be faxed with a registration form.

Adding a Course

Students can add courses until the start of the semester for 1st 8-week and full semester courses and up until the course begins for 2nd 8-week courses. Exceptions to these deadlines require the appropriate Division Dean's written signature to register. Courses can be added through the Web (until the semester starts) or by completing an Add/Drop form and submitting to Express Services at Central Campus or Registration at Monroe Campus. When adding a course, all additional tuition and fees must be paid at that time or a payment plan must be established.

Drop/Add: During the first week of the semester, students can drop a class or choose a different section of the same course. When dropping and adding at the same time, tuition from the dropped class is used to pay for the new class. After the first week of the semester, switching sections or adding classes requires written approval from the appropriate Division Dean or appropriate Division Administrator. If there is a difference in cost, students are responsible for paying any additional fees at the time of registration.

Adding a course may affect financial aid status. If an agency or program is funding educational expenses, students may be required to have schedule changes approved by the agency or program staff.

Dropping a Course

Dropping a course can impact program status and completion timeline. It is the student's responsibility to notify the College when dropping a course. Prior to dropping a course, students are required to discuss concerns with the instructor, appropriate Dean, advisor, and/or the
Financial Aid Office. Dropping a course may affect financial aid. If an agency or program is funding educational expenses, students may be required to have schedule changes approved by the agency or program staff. Students are responsible for all course fees not paid.

Students cannot withdraw (a grade of "W" is recorded and no tuition refund is available) from a course if 20 percent or less of the class remains. However, in the case of extenuating circumstances, students may obtain written permission from the appropriate Dean or Division Administrator. Courses cannot be dropped/withdrawn if an academic misconduct issue is pending. The college may drop a student from a course for which course requirements have not been met (i.e. prerequisites, co-requisites, etc.).

A student must notify the College if he/she intends to drop a course. Courses may be dropped through the Web (before the first day of the semester) or by completing a Course Change form at Express Services at Central Campus or Registration at Monroe Campus. When dropping a course, a student may be eligible for a refund consistent with the WTCS refund policy (see Refund Policy). Refunds will be directly deposited to accounts established in TouchNet or a check will be mailed within two weeks.

If you are marked as a non-attendee you will be dropped from the course and an 80% refund will be provided.

**Refund Policy**

Refunds will be issued in accordance with the following state guidelines:

**100% Refund**

If a student drops any course before the first class meeting, 100% of the fees shall be refunded—excluding non-refundable fees.

If a student drops a course before or at the time 10% of the course's potential hours of instruction have been completed, and adds another course on the same day, 100% credit will be received for all applicable student tuition and fees for the dropped class.

**80% Refund**

Eighty percent of all applicable student tuition and fees are to be refunded if the application for refund is made before or at the time 10% of the course's potential hours of instruction have been completed—excluding non-refundable fees.

**60% Refund**

Sixty percent of all applicable student tuition and fees are to be refunded if the application for refund is made after 10% but before more than 20% of the course's potential hours of instruction have been completed—excluding non-refundable fees. (A grade of "W" will appear on the student transcript.)

**0% Refund**

No refund is to be made if the application for refund is made after 20% of the course's potential hours of instruction have been completed. (A grade of "W" will appear on the student transcript.)

In order to receive a refund, except in cases when BTC cancels or discontinues a course, a student must request the refund. This also applies to drops due to non-attendance. BTC will issue the refund within two weeks of a request.

 Exceptions to this policy may be made in the case of death, extended illness, or other extenuating circumstances. A student must submit an Exception to the Refund form which may be obtained at Student Services or Registration at Monroe Campus prior to the end of the semester in which the course was taken. Requests made after this time will automatically be denied unless the student was incarcerated or incapacitated. The completed form, including documentation of extenuating circumstances, may be returned to Student Services or Registration at Monroe Campus.

**Religious Belief Accommodations**

BTC will attempt to minimize conflict between your academic obligations and sincerely held religious beliefs. Reasonable accommodations will be made so that examinations and other academic requirements do not unnecessarily interfere with your observation of religious holidays.

Observation of a religious holiday does not exempt you from any course requirement, but allows you an opportunity to complete the assignment through an alternate means as arranged with your course instructor(s).

The following procedures will be used to set up reasonable accommodations for a religious holiday.

1. Submit a written request to your course instructor(s) within the first ten (10) days of the class. The request will advise the instructor(s) of the specific date of the observation.
2. The instructor(s) will have ten (10) school days to respond to your request, in writing, outlining the accommodations that will be made.
3. You should remind the instructor(s), in writing, of the religious observation five (5) school days in advance of the anticipated absence.
4. The instructor(s) may provide you with a make-up assignment for the day absent. The instructor(s) are not obligated to schedule a make-up assignment before the regularly scheduled requirements are due.

Conflicts between your observation of a religious holiday and completion of academic requirements should be resolved informally between you and your instructor whenever possible. If the issue cannot be resolved informally, a formal grievance complaint may be filed.

**Retraining Guarantee Policy**

BTC is committed to educational excellence. The education and training offered at BTC is designed to enable you to acquire job entry occupational skills needed for full participation in the workforce. BTC stands behind the training provided and will guarantee to provide at least six (6) additional credits of retraining, at no cost to you, under the following conditions:

- Your employer certifies that you lack the target job competencies specified in the educational program normally expected of a job entry-level employee, or
- You have not secured employment within six months following graduation

To be eligible for the guaranteed retraining you must have successfully completed and graduated from a one-year technical diploma, two-
year technical diploma, or associate degree program. In addition, you
must have registered for services provided through BTC’s Career and
Professional Development Services located in the Student Success
Center and actively pursued employment in your occupational field or a
related field. For more information on BTC's Guaranteed Retraining Policy,
contact the Student Services Office at (608) 757-7713.

Smoke/Tobacco Free Campus

For the health and well-being of everyone using BTC's facilities, smoking
and the use of any type of tobacco product (including electronic
cigarettes) is NOT PERMITTED in any of the buildings. Smoking outside
of the buildings is allowed, but only in the areas designated for that
purpose. Smokers are encouraged to use only the designated areas set
aside for tobacco use and the receptacles located at those areas.

Student Identification Numbers and
FERPA

As of January 1, 2000, Wisconsin Act 128 limits the disclosure and
release of student Social Security numbers. In order to comply with Act
128, BTC assigns a unique identification number to each student. This
identification number does not incorporate the student’s Social Security
number. BTC may collect and report Student Social security numbers for
state and federal reporting requirements. BTC procedures are designed to
ensure that student Social Security numbers remain confidential.

FERPA

The Family Education Rights and Privacy Act (FERPA (http://
www.ed.gov/policy/gen/guid/fpco/ferpa)) affords students certain rights
with respect to their education records. They are:

1. The right to inspect and review the student’s education records
2. The right to request the amendment of the student’s education
   records that the student believes are inaccurate or misleading.
3. The right to consent to disclosures of personally identifiable
   information contained in the student’s education records, except to
   the extent that FERPA authorizes disclosure without consent.
4. The right to file a complaint with the U.S. Department of Education
   concerning alleged failures of Blackhawk Technical College to
   comply with the requirements of FERPA. The name and address of the
   office that administers FERPA is:

   Family Policy Compliance Office
   U.S. Department of Education
   600 Independence Avenue, SW
   Washington, D.C. 20202-4605

Exceptions under FERPA

Under certain conditions, as authorized by FERPA, information can be
released without student consent. They are:

Directory Information

The use of the term Directory Information does not imply that the College
actually has a document containing Student Directory Information, or that
the College has any obligation to produce such a document.

BTC, under most circumstances, will not release information
in your file without your written consent (Release of Student
Records (http://public.blackhawk.edu/mybtc/ExpressServices/
ConfidentialInformationReleaseAuthorizationSS.pdf), complete this
form in its entirety). Please see Express Services at Central Campus
or Registration at Monroe Campus for questions on this policy and/or
form. However, the Blackhawk Technical College Board has designated
the following information as directory information and therefore can be
released without your written consent:

Personally identifiable information will not be released from an education
record without the prior, written consent of the student unless an
exception has been granted by FERPA (see exception section below).

Rights under FERPA

FERPA affords students certain rights with respect to their education
records. They are:

1. The right to inspect and review the student’s education records
   within 45 days of the day the College receives a request for access.
   You should submit to the Registrar written requests that identify
   the record(s) you wish to inspect. The Registrar will arrange for
   access and notify you of the time and place where the records may
   be inspected. At the time of viewing, the student will present some form
   of picture identification, such as a valid driver’s license, before being
   allowed to view the record.
2. The right to request the amendment of the student’s education
   records that the student believes is inaccurate or misleading.
   You should write to the Registrar, clearly identifying the part of
   the record you want changed, and specify why it is inaccurate or
   misleading. If BTC decides not to amend the record as requested, the
   college will notify you of the decision and advise you of your right to a
   hearing regarding the request for amendment. Additional information
   regarding the hearing procedures will be provided to you when you
   are notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable
   information contained in the student’s education records, except to
   the extent that FERPA authorizes disclosure without consent (see
   section on exceptions below).
4. The right to file a complaint with the U.S. Department of Education
   concerning alleged failures of the College to comply with the
   requirements of FERPA. The name and address of the office that
   administers FERPA is:

   Family Policy Compliance Office
   U.S. Department of Education
   600 Independence Avenue, SW
   Washington, D.C. 20202-4605

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The College has defined Directory Information as the following:

- Student Name
- Student Address and Phone Number
- Date and Place of Birth
- Full-time or Part-time Status
- Major Field of Study
- Dates of Attendance
- Credits Earned Toward a Diploma
- Degrees and Awards Received
- Photos and Videos of Students for use in College Press Releases, Publications, and WEB Sites
- BTC Assigned Student Email Accounts

Students have the right to restrict the disclosure of "Directory Information" at any time. To restrict the disclosure of Directory Information, a student may file a Privacy Request Form to the Express Services or Registration Office on Central or Monroe Campuses. The request to restrict disclosure of Directory Information will be honored until the student notifies the Express Services or Registration Office in writing to the contrary.

U.S. Military
According to federal law, the College must release to the U.S. Armed Forces student name, address, phone number, date of birth, and field of study.

Authorized Federal, State, and Local Authorities
Student authorization is not required for disclosure to an authorized representative of the following individuals or entities:

- The Comptroller General of the United States
- The Secretary of the U.S. Department of Education
- State educational authorities
- Any party legitimately connected with a student's application for, or receipt of, financial aid
- Accrediting organizations
- Agencies involving an audit or evaluation of compliance with education programs
- Organizations conducting studies for or on behalf of educational institutions

Other Institutions
Information can be released to other schools to which a student seeks or intends to enroll.

Emergency Situations
Information can be released to law enforcement personnel, emergency personnel, and College officials in an emergency in order to protect the health or safety of students or other persons.

Legitimate Educational Interest
Officials of the College who are determined by the College to have a legitimate educational interest may have access to student records without obtaining consent from the student. Officials of the College are defined as:

- Persons employed by the school in an administrative, supervisory, academic, research, or support staff position,
- Persons serving on school governing bodies, and
- Persons employed by or under contract to the College to perform a specific task, such as an attorney or auditor.

An official has a 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, or
- Conduct tasks related to a student's education or campus discipline.

Judicial Order
Information must be released to comply with a judicial order or lawfully issued subpoena. However, the College will make a reasonable effort to notify the student of the order or subpoena in advance of compliance, so that the student may seek protective action. However, if the court (or other issuing agency) has ordered that the existence or the contents of the subpoena or judicial order not be disclosed, the College will comply and notification to the student will be withheld.

Grievance Hearing
Information about a student or students involved in a grievance investigation or grievance hearing may be released to members of the grievance committee, including any students assigned to that committee, if such information is germane to the investigation or hearing.

Disciplinary Hearing
The results of a disciplinary hearing may be released to an alleged victim of a crime of violence without the permission of the accused.

Blackhawk Technical College Foundation
Student names and addresses may be released to the Blackhawk Technical College Foundation for foundation-related activities. The Foundation is considered part of the College and will hold such information confidential, using the information only in specific activities intended to aid and support the College. Release of such information to the Foundation will be made only with the approval of the College President or his/her designee.

U.S. Patriot Act
The College must release, without consent or knowledge of the student, personally identifiable information from a student's education record to the Attorney General of the United States or his/her designee in connection with the investigation or prosecution of terrorism crimes specified in sections 233b (g)(5)(B) and 2331 of Title 18, U.S. Code.

Written Release
Personnel employed by the College who have consent in the form of a written release of information, signed by the student, may disclose student information to appropriate outside agencies or persons.

Note: A record of disclosure will be maintained within a student's file indicating when information has been released from that file and to whom.
**Note:** A fee of five dollars may be assessed for the copying of all or a portion of a student record.

## Transfer and Credit for Prior Learning

BTC seeks to provide students with opportunities to obtain credit toward the completion of their technical college educational programming by providing credit for prior learning that has occurred through several avenues of experiences as defined below. Acceptance of credit awarded by any college is at the discretion of the receiving college.

Students must complete at least 25% of the total program credits through coursework at BTC. This shall include 25% of occupational core credits associated with the program from which the student will graduate.

### Military Credit for Prior Learning

As a member of the military, students may be eligible for college credit based on coursework that was completed throughout boot camp, basic training, officer training, school or other training. Acceptance of credit by any college is at the discretion of the receiving college. It is the student’s responsibility to obtain necessary documentation for credits to be considered for transfer. Once the appropriate documentation is received, BTC personnel, and appropriate academic division Dean, will review military training and experience documents of former and currently enlisted U.S. Military personnel for the awarding of possible credits.

Veteran and Service Member Priority Registration: In compliance with Wisconsin Act AB201, Blackhawk Technical College proudly offers eligible Veterans and Service members the opportunity to receive priority course registration dates. This will allow Service members to enroll in courses ahead of non-service members. This priority applies to Service members who have served or are currently serving on active duty under honorable conditions in the U.S. armed forces.

Experiential Learning

When supported by adequate documentation, students may request awarding of credits based upon work or other experiences. It is the student’s responsibility to initiate this process with his/her Advisor.

### Challenge Exam (Test Out)

When students have advanced high school courses, or other undocumented or unaccredited experiences, BTC offers them the opportunity to receive credit by examination. Students must meet with Program Advisor to discuss this option. For more information on the Challenge Exam, click here.

### Earned Associate, Bachelor or Master’s Degree from a regionally accredited institution

Students are eligible for immediate transfer of four general education classes (totaling 12 credits) and two courses of electives (totaling six credits). Other courses can be reviewed individually. *Other policies may impact the transfer of such courses.

If students register for a course for which the college later grants credit, students may choose to drop/withdraw from the course. Students are held responsible for all appropriate fees incurred.

## UW/WTCS Policy on Credit Transfer

Any student enrolled in the Wisconsin Technical College System who wishes to continue their education in the University of Wisconsin System may be eligible to transfer credits toward a bachelor’s degree.

UW institutions may accept in transfer up to forty-eight (48) BTC core credits. In cases where UW institutions find such course work not
acceptable for transfer, BTC students should have an opportunity to earn credit by examination if the UW institution offers a course which is generally comparable in content and/or title.

UW System students who have successfully completed an Associate of Applied Arts/Science Degree may be eligible to transfer certain technical support and/or occupational credits when there is a direct relationship between BTC's Associate Degree program and a program offered at a UW System institution.

Students transferring from the WTCS may earn credits by earning appropriate scores on national standardized examinations (e.g., College Level Examination Program) or examinations developed by the UW System transfer institution.

For more information about transfer opportunities, you should consult with your advisor or contact the admissions office at the UW System institution or private college of your choice.
If you are a prospective or enrolled student interested in Blackhawk Technical College, you’ve come to the right place. As an information clearinghouse, our Student Services Department provides literature, advising, financial aid and special programs all to support your career at BTC.

Our job is to take your college journey with you, past every obstacle, all the way to graduation.

For additional information, you can also check out the BTC Student Handbook.

Advising

Advising/Retention Services
Advising and retention services focus on the development of students. Advising assists students in achieving their academic, career and personal goals at BTC.

You are encouraged to consult with an academic advisor about any academic or personal problem. They can help you explore your aspirations, attitudes and interests. Advising and retention services include vocational guidance, career information, assistance with academic and study problems, and personal guidance. Advisors assist with program information, course scheduling and assistance in identifying campus resources.

On the Central Campus, advisors are located in the Student Services office. Students are encouraged to schedule an appointment to meet with a member of the advising team. Walk-in hours are also available but may change from one semester to the next. Advising services are available at the outreach centers and in the evenings on a limited schedule. For more information about advising services, or to schedule an appointment, call (608) 757-7668 at the Central Campus or (608) 328-1660 at Monroe Campus.

Student Referral
If you are experiencing problems completing program or course requirements, we encourage you to seek help immediately. Your instructor may refer you to an advisor for assistance through a student referral form. Once a referral form is received, the advisor will contact you. You and the advisor will work together to create a plan to improve your academic performance.

Bookstore
Students are required to purchase their own textbooks and supplies. While it is not mandatory, students will usually find it convenient to purchase materials from the campus bookstore. The policy for a refund on book purchases is posted at the bookstore. The receipt of purchase is required for any refund. A full refund on books used for full-semester courses is available up to one week after the first day of class. Full refunds are available for all other courses within 48 hours of the first class. The bookstore does have a book buyback program approximately one week prior to the end of the semester.

The bookstore has available a wide range of textbooks, educational materials, and school supplies. The bookstore is open Monday and Tuesday from 8:00 am through 7:00 p.m., Wednesday and Thursday from 8:00 am through 6:00 p.m., and Friday from 8:00 a.m. through 2:00 p.m. The bookstore is open additional hours during the first week of classes. Call (608) 757-7672 for more specific information or access their website, www.efollett.com (http://www.efollett.com). Services you can access via Follett’s website include reserving and pre-paying online and then picking up in the store, buying online and having your books shipped, and purchasing software at student discount prices. You must have a credit card to pre-pay or have the books shipped.

Campus Safety

Alcohol and Illegal Drug Policies
The possession, and sale, of alcoholic beverages on BTC premises is strictly prohibited. In addition, the possession, use, and sale of alcohol are further regulated in accordance with applicable state and federal laws and Wisconsin Administrative codes. BTC cooperates with local police agencies to enforce underage drinking laws and other violations related to the possession, use, and sale of alcohol. As a BTC student you are expected to comply with all laws and District policies regarding the use of alcoholic beverages. Depending on the nature of the violation, you may face legal prosecution and/or corrective action in accordance with applicable laws and BTC procedures.

Campus Safety
It is the intent of BTC to provide a safe, secure, and appropriate environment in which students can learn and employees can work. However, like all segments of society, situations may occur which threaten the security and safety of property and people.

If you feel threatened, see criminal actions, or observe behavior which jeopardizes the safety and security of property and/or persons at BTC, you should report the incident immediately to the Security Office or BTC staff. BTC security or a staff member will assess the situation and determine if an emergency response is necessary. If the situation warrants emergency intervention, local law enforcement will be contacted to resolve the problem and investigate the incident. Any non-emergency incident of property damage, theft, burglary, or other criminal actions should be reported to the Security Office and local law enforcement for investigation and disposition.

Behavior Intervention Team (BIT)
The Behavioral Intervention Team (BIT) has been established to serve as a central network focused on prevention and early intervention in college situations involving students showing signs of serious distress or engaging in harmful or disruptive behaviors. The Team develops strategies for, and provides referrals or consultations to, college resources when concerns arise about students’ well-being or when there is behavior that seems potentially harmful to self and/or others or may be disruptive or threatening. This Team will regularly assess situations in the college community, monitor students for an appropriate period of time, and will recommend actions in accordance with existing college policies.

To reach a BIT Team member, please contact (608) 757-7660.

Security of and Access to BTC Facilities
The college has Campus Security; however, they do not have arrest powers. Security officers have the authority to ask persons for
identification and to determine whether individuals have lawful business at the college. College security officers have the authority to enforce college and administrative policies as well as the Student Code of Conduct.

The college uses local law enforcement agencies that have jurisdiction over the campuses and center to investigate and enforce ordinances and criminal laws.

Access to and use of BTC facilities is governed by institutional policies and local statutes. Access to facilities is limited to BTC students, faculty, and staff for work, education, or other related purposes. Outside groups may use the facilities with special permission in accordance with district policy. Loitering or wandering through the facilities for unapproved reasons is prohibited.

**Criminal Offense Statistics at BTC Facilities**

Blackhawk Technical College prepares an Annual Security Report in compliance with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act, as well as Wisconsin state statutes. A copy of this report may be found at www.blackhawk.edu/safety. A copy can also be obtained in the Safety and Security Office.

**Sex Offender Registry**

Federal law requires BTC to provide details on where students can obtain information about registered sex offenders in the state or community. The Wisconsin Sex Offender Registry is maintained by the Wisconsin Department of Corrections. Information is available on the department’s website: http://www.widocoffenders.org.

**Consensual Relations**

Positive relationships between students and staff at BTC enrich the college environment and are encouraged. It is natural that interaction between individuals in an academic setting may lead to personal friendships. Personal friendships do not pose problems as long as they do not interfere with academic decisions. However, a consensual romantic or sexual relationship between a student and a staff member may be exploitative and create the appearance of a conflict of interest.

Therefore, students and staff are discouraged from entering into a consensual romantic or sexual relationship while the student is currently enrolled in the staff person’s class or when the student is receiving guidance from the person.

As a student you are urged, for your own protection, to refrain from developing a relationship of a sexual or romantic nature with BTC staff. If you become involved in such a relationship, you are encouraged to contact the BTC Title IX Officer located on Central Campus. (See policy below for contact information)

**Discrimination and Harassment Policies**

BTC, through its commitment, will affirmatively attempt to provide an environment free of harassment for all employees and students. Harassment of students and employees of BTC is unacceptable and will not be tolerated. BTC deplores such conduct as an abuse of authority.

BTC, in compliance with Title VI and VII of the 1964 Civil Rights Act as amended, Title IX of the 1972 Education Amendments Act, Section 504 of the Rehabilitation Act, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Amendments Act of 2008, prohibits harassment by supervisors, co-workers, students, and non-employees on the basis of sex, race, national origin, disability, or other protected status person.

BTC has no tolerance for discriminatory, harassing, or racist behaviors. Specifically, the Blackhawk Technical College District Board actively complies with all state and federal equal opportunity and affirmative action laws, rules, executive orders, and policies. It is the policy of BTC not to discriminate in employment on the basis of age, race, creed, color, religion, handicap, marital status, sex, national origin, ancestry, arrest record, conviction record, sexual orientation, or membership in the National Guard, state defense force, or any reserve component of the military forces of the United States or this state. BTC does not discriminate against students on the basis of race, color, creed, religion, sex, national origin, disability, ancestry, age, sexual orientation, pregnancy, marital status, or parental status. Discrimination means the difference in treatment in any service, program, course, or facility of BTC on the basis of these protected statuses.

Inquiries regarding equal opportunity and possible discrimination may be directed to one of the following individuals. Their area of expertise, office location at the Central Campus, and telephone number are noted:

- **Brian Gohike**, Affirmative Action Officer, Administration Center  
  Phone: (608) 757-7773

- **Lynn Neitzel**, Title IX Officer  
  Phone: (608) 743-4508

- **Renea Ranguette**, ADA Officer, Administration Center  
  Phone: (608) 757-7700

Your written concerns can be sent to any of these individuals at:

Blackhawk Technical College  
6004 South County Road G  
P.O. Box 5009  
Janesville, WI 53547-5009

Harassment is unwanted, deliberate, or repeated unsolicited comments, slurs, demeaning references, gestures, graphic materials, physical contacts, solicitation of favors, advances, or other adverse treatment based on a protected group status when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual’s employment, student status, or academic participation.
2. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting an individual.
3. The conduct has the purpose or effect of substantially creating an intimidating, hostile, or offensive environment which tangibly affects or interferes with an individual’s job performance or other employment or academic opportunities.

Alleged acts of harassment and discrimination may be violations of equal employment or educational opportunity policies under which BTC operates. Discipline may be imposed for violations of this policy in accordance with the procedures outlined in The Student Disciplinary Procedure.
Typical support hours are below. Student Help Desk Support can be reached at (608) 757-7711 or in room 2409 on Central Campus. Support is available both during and between semesters, and students may bring their own devices.

BTC facilities are equipped with wireless Internet access, and approximately 1,700 computers are available on multiple campuses. Students can rent lockers at the beginning of each semester in the Commons. A limited number of lockers are available for student use. Reservation fees are required, which every BTC credit student pays in addition to regular tuition.

Accident or Illness Emergency Procedures

BTC uses the professional medical treatment system available in the community to respond to injuries and illness. BTC will provide basic medical first aid but will not treat any illness or injury. Rather, you will be referred to an appropriate medical treatment facility. If you refuse to seek follow-up medical treatment after it has been recommended by a staff member, you will be asked to sign a waiver corroborating this decision.

You will be responsible for your own transportation to a medical facility. However, should the injury or illness be considered an emergency an ambulance will be requested. You will be responsible for the cost of the ambulance. Under no circumstances will BTC staff transport you for treatment. All accidents, regardless of the seriousness, should be reported to a staff member.

Clean-up after an accident or illness should be left to the BTC maintenance and custodial staff. You should not attempt to clean up blood, vomit, or other body fluids without proper safety equipment. If clean-up is necessary, you should go to the Welcome Center (information desk) at the main entrance and request maintenance/custodial staff to clean up the area.

In the case of emergency, dial 911. Classroom and hallway assistance phones can be used to report an emergency by following the posted instructions. Dial 9-911.

Career & Professional Development Services

Blackhawk takes great pride in offering a wide range of career and professional development services. Resources include WisconsinTechConnect (https://www.wisconsintechnocert.com) (the Wisconsin Technical College student and alumni employment website, individual appointments on resume writing, and interviewing skills, workshops, and internship search strategies. The Certificate of Professional Development is a non-credit program that allows students and alumni to develop and improve professional skills which will provide them the edge in their job search. Computers (with access to the Internet) are also available for resume preparation and job searches. Career and professional development assistance within the Student Success Center (Room 2200), Monday through Friday, 8 a.m. to 5 p.m., on the Central Campus. These services are also available at all other BTC sites. Prospective graduates are encouraged to contact Alicia Acker - Student Engagement Specialist at aacker@blackhawk.edu. (608) 743-4423 for more information.

Computers on Campus

BTC students have access to approximately 1,700 computers on multiple campuses. In addition to over 35 computer-equipped classrooms, there are open computer labs on all campuses.

All BTC facilities are equipped with wireless Internet access, so students may bring their own devices.

Help Desk Support is available both during and between semesters, and can be reached at (608) 757-7711 or in room 2409 at Central Campus. Typical support hours are below.

Fall/Spring Semester Support Hours:
- Monday-Thursday: 7:30am-9:00pm
- Friday: 7:30am-5:00pm
- Saturday: 8:00am-1:00pm

Between Semesters:
- Monday-Friday: 7:30am-5:00pm

Summer Semester Support Hours:
- Monday-Thursday: 7:30am-7:00pm
- Friday: 7:30am-5:00pm

Fitness Center

The BTC Fitness Center is located in the Central Campus and features over 16 pieces of modern fitness equipment. Credit students qualify to receive a free Fitness Center membership because of a donation by the Student Government Association. These funds came from segregated fees, which every BTC credit student pays in addition to regular tuition. Non-credit student memberships cost $25 per year. Faculty, staff and administration of BTC can use the facility for $50 per year. The fee is non-refundable and is valid from September-July of each year.

Food Service

The Student Commons is the focal point for students on the Central Campus. The adjacent food service area serves reasonably-priced breakfasts, lunches, and snacks with hours posted. A number of student lounges are available for gathering and studying in a relaxed, quiet setting. Several of the lounges have vending services for snacks. Food and beverages are only allowed in the Commons, Blackhawk Room, and two designated student lounge areas. Food and beverages are not allowed in classrooms, hallways, lobby areas, or restrooms. You are encouraged to follow this rule and help keep the facilities clean and neat.

Library

The Blackhawk Technical College Library is located at Central Campus. The Library also maintains a small collection of books and periodicals at the Monroe Campus Learning Resource Center (LRC). Students at all BTC locations have full access to library materials via inter-campus loans, which are delivered by the college’s shuttle system. In addition, many library resources are available online 24/7 for the convenience of students.

During the fall and spring semesters, the BTC Library is open Monday through Thursday from 7:30 p.m. – 7:30 p.m. On Fridays, it is open from 7:30 a.m. – 4:00 p.m. The Library is closed on Saturdays and Sundays.

For information about Library resources, services, staff, and a complete list of library hours—please call the circulation desk (608) 757-7671, or visit the library web page: http://www.blackhawk.edu/Library.aspx

Lockers

A limited number of lockers are available for student use. Lockers may be rented at the beginning of each semester in the Commons. Lockers may then be rented from the Student Services Office.
If you want to rent a locker, the cost is $3.00 per semester, $5.00 per year, and $3.00 per summer term. Students may rent lockers on a semester or yearly basis. Policies related to locker rental and use may be obtained from Student Services.

For more information regarding lockers at other BTC sites, please contact the front desk at that site.

Lost and Found

The Lost and Found is located at the Security Office (room 2105), located directly next to the front entrance of the Central Campus. It is generally open from 8:00 a.m. to 4:30 p.m. on Friday.

Anyone finding an item should turn it into the Security Office. If you have lost an item, please file a report with security so, if found, the item can be returned. If no one is available in the Security Office, please see the attendant in the Welcome Center to assist you. All items will be stored for 90 days and then donated to charity.

For more information regarding lost and found at other BTC sites, please contact the front desk at that site.

Multicultural Services

Blackhawk Technical College is committed to the success of all students, including fostering multicultural student success through advocacy, mentoring, support, inclusion, intervention, advising, leadership and access to other internal and external resources. The college strives to provide a place where all students are welcome, accepted, encouraged and empowered. We connect students to a variety of services including academic support, tutoring, mentoring, and employment opportunities. Other resources include a lending library containing text books (when available), training materials and other items focusing on diversity and racial justice.

Students should check their email for opportunities and activities that take place during the fall and spring semesters.

Multicultural Services Location:
Student Services, Central Campus

Contact:
608-757-7713

Hours:
8:00a.m - 5:00p.m Monday – Friday

Services for Students with Disabilities

BTC provides reasonable accommodations and support services to students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act of 2008 (ADAAA). Students are required to provide documentation of their disability. Services that are available include, but are not limited to, testing accommodations, tutoring, note taking, and texts in alternative format, interpreters, and assistive technology. If you have a disability for which you are requesting accommodations, please contact the Student Success Center at (608) 743-4422, deaf/hh call Relay 711. Please request accommodations at least three (3) weeks prior to the start of classes to ensure services are in place. Standards regarding course quality and academic progress must be maintained.

Transition Services are available to assist potential students with career exploration and developing a plan that outlines the steps that lead to a successful transition into BTC. Transition Services can be coordinated by calling (608) 757-7796, deaf/hh call Relay 711. Accommodations for the college entrance and TABE tests are available in the Student Success Center.

BTC also provides accommodations for students and guests with disabilities participating in activities offered through BTC. If you require an accommodation, you should contact the Student Services Office at (608) 757-7796. Please request accommodations at least two (2) weeks prior to the event; however, requests with shorter notice will be provided whenever possible.

Student Engagement

Awards Program

During the program, individuals are recognized for their academic achievements, participation in student organizations, and contributions to the college & community. The Blackhawk Technical College Awards Ceremony takes place in late April.

BTC Ambassadors

Student Ambassadors are a select group of students who represent BTC, as well as their own programs, to our student body and local communities. They serve as orientation leaders, tour guides, group facilitators, and assist with the many events that take place on campus. Ambassadors develop leadership and teamwork skills that will benefit them in their careers. Candidates are selected through a screening and interview process during the spring semester.

Mentoring

The Blackhawk Technical College Mentoring program provides students the opportunity to connect with other BTC students, faculty, and staff to enhance student success while attending the College. Students are paired with a student (peer) or staff member who ensures students are connected to resources and services that will assist them in meeting their educational and career goals.

Student Representative to the District Board

BTC was one of the first technical colleges in Wisconsin to formally have a student representative to the Board. Elected by the Student Government Association, the student representative serves in a non-voting position & acts as the liaison between the Board and the student body. The term of office is one year with elections held annually in the spring.

Student Network of Activities and Programming (SNAP)

The Student Network of Activities and Programming (SNAP) plans campus-wide social, recreational and educational activities. This committee is open to all students. Student members are involved in choosing entertainers for campus programs, and marketing and promoting campus-wide events. Students will gain professional experience in marketing, planning, negotiation and communication.
Volleyball Court
A sand-pit volleyball court is located west of the Commons on the Central Campus. Constructed with funds designated from the Student Government Association, the volleyball court provides recreational activities for students as time permits. Those interested may check out volleyballs from the Student Success Center with a student ID.

Clubs and Organizations
Blackhawk Technical College offers a wide variety of student organizations for students to participate in. These organizations provide opportunities for leadership, professional growth, and building connections throughout the college community. For more information about student organizations or to inquire about starting a new organization, please contact Student Engagement in the Student Success Center.

American Welding Society
The mission of the American Welding Society is to advance the science, technology and application of welding. Students involved in the American Welding Society have the opportunity to enhance their welding skills through practice, professional development and competitions.

Auto/Diesel Club
The purpose of the Auto/Diesel Club is to bring students together to provide leadership, training, networking and service to the automotive and diesel technician career fields. Students participate in community service projects, fundraising, and professional field trips.

Society of Human Resource Management (SHRM)
The purpose of SHRM is to engage, update and support students in the learning and education of human resource management and to enhance student activities and participation at Blackhawk Technical College.

Business Professionals of America
Business Professionals of America is the leading CTSO (Career and Technical Student Organization) for students pursuing careers in business management, office administration, information technology and other related career fields. BPA has 43,000 members in over 2,300 chapters in 23 states. The mission of Business Professionals of America is to contribute to the preparation of a world-class workforce through the advancement of leadership, citizenship, academic, and technological skills.

Public Safety Association
This organization focuses on students and staff working together to enhance training and education in public safety programs. This organization works to develop interest in the many career fields public safety offers, while engaging in fun, interactive networking activities.

Epicurean Club
The Epicurean Club provides students who are interested in the Culinary Arts field to participate in educational activities which enhance their culinary skills. Students have the opportunity to show off their talents at various competitions throughout the year.

Health Occupations Students of America (HOSA)
The Health Occupations Students of America (HOSA) is available to all students in the health occupations-related courses at BTC. The organization helps to develop leadership, citizenship, personal and professional responsibility, as well as promoting various service projects throughout the District.

Multi-Cultural Alliance
The Multi-Cultural Alliance promotes campus diversity initiatives and activities at BTC. Members promote goodwill, develop leadership & professional skills for social and racial justice.

Phi Theta Kappa Honor Society (Beta Rho Psi Chapter)
Phi Theta is recognized as the official honor society for community colleges by the American Association of Community Colleges. Membership is based on superior academic achievement and is conferred only by invitation of your local chapter. Phi Theta Kappa promotes academic achievement, and provides service opportunities for professional growth and fellowship.

Postsecondary Agriculture Students
The PAS organization meets primarily at the Monroe Campus, but is open to all BTC students. PAS works with students who are interested in agriculture, agribusiness and natural resources. The purpose of PAS is to provide opportunities of individual growth, leadership and career preparation.

Southern Wisconsin Student Lab Association
The purpose of the Student Lab Association is to provide an opportunity for students to expand their skills in the Medical Lab Technician field. Students will explore the career field, obtain opportunities for professional development & networking, and participate in community service initiatives.

Veterans Club
The purpose of the BTC Veterans Club is to provide a single point of contact for any and all activities related to Veterans’ education. This includes coordinating with local, regional, state and national veterans’ organizations to provide services that support the student veterans’ educational experience. The BTC Veterans Club also conducts activities that illustrate and celebrate past and present contributions to society as a whole.

Student Identification Cards
Identification cards are available to all BTC students. The cards include the BTC logo and address and student picture, name and nine digit identification number. The card also includes a bar code that allows students to access resources at the BTC library and the Learning Resource Center in Monroe.

Photos will be taken during new student orientations and at the beginning of each semester. After this time, students can have pictures taken and cards issued through the Student Success Center, the Monroe Campus Learning Resource Center or at our Advanced Manufacturing Training
Center. In order for a BTC student ID to be issued all students must present a valid picture ID.

Telephones and Messages

Assistance phones are located throughout the hallways at Central, Milton and Beloit campuses. These phones can be used to report an emergency by following the posted instructions. A courtesy phone is available in the lobby/lounge at Monroe, Beloit, and CTS campuses for placing local calls only. Students are not allowed to use school office phones. Deaf/ hh, please call through Relay 9-711. Only messages of an emergency nature will be taken at the Welcome Center and every reasonable attempt will be made to locate the student. Non-emergency messages will not be accepted. Students should inform families, childcare providers, etc. of the above limitations and develop alternate arrangements in the event they cannot be located.

Student Services lobby phone is for emergency use only and a five minute limit is enforced.

The Welcome Center is not to be used for delivery purposes (such as key or lunch drop-off, or book pick-up).

Things You Need to Know

Change of Name, Address and Phone Number

It is important that students update their personal information (i.e. name, address, and/or phone number). BTC needs to have up-to-date information on file in the event of illness, emergency, the mailing of grade reports, etc. Students can change this information by selecting the "About Me" link located on the MyBTC homepage. Forms are available in Student Services or on the BTC records and registration website.

Changes/Verifying Program of Record

If students’ goals and needs change and a program no longer meets their objective, students can change their program. Students are required to meet with a Program Advisor when selecting a different program. During this meeting, a new academic plan will be created and new program requirements are discussed. Students making more than two program changes are required to meet with a Program Advisor and complete a career assessment. Once the career assessment has been completed, the student will have a follow up appointment with a Program Advisor to discuss those results and a program change will be made as appropriate.

Accuracy of a student’s program of record is important. Not only can this affect financial aid eligibility, but it could also affect program completion and permanent student records. Students can verify their program of record through MyBTC or by contacting the Enrollment Services.

Course and Program Wait Lists

A program waitlist may be established when there are more applicants than there are spaces available in a particular program. If your name is placed on a waitlist, you will be notified by the Enrollment Services Office. At that time, you can choose to remain on the waitlist or withdraw your application. When a spot in the program opens, the Enrollment Services Office will contact you.

Insurance

Student insurance programs are available on an individual basis for interested students. Brochures describing the coverage are inserted in the registration materials, which each student receives prior to the beginning of the school term. Students desiring further information may contact Student Services Office on Central Campus.

Transportation

All credit students are assessed a $20 transportation fee per semester.

Bus and Shuttle Transportation

BTC operates two bus shuttles that connect all five sites. Service runs Monday through Friday from 5:30 a.m. to 10 p.m. Schedules are available at each site. The shuttle service is free-of-charge, but a current student ID must be provided at all times.

Public transportation is offered between Janesville and Beloit. There are twelve stops each weekday at Central Campus between 6:00 a.m. (first stop at BTC is 6:15 a.m.) and 6:15 p.m. (last stop at BTC is 5:40 p.m.) The schedule has been coordinated with the transit companies so the stops coincide with class schedule to the degree possible. Bus schedules, fare information, routes, etc. are available at the Welcome Center on Central Campus.

Parking

The Central Campus usually has adequate parking for everyone. Please observe parking restrictions as posted. Otherwise, you may park on a first-come, first-serve basis. Parking for the disabled has been reserved at several locations. Only persons with a valid disabled license plate or handicapped sticker issued by the Wisconsin Motor Vehicle Department may park in those spaces. BTC cannot issue any kind of handicapped sticker.

There are designated parking areas set aside for special purposes such as motorcycles and the Rock County Sheriff Office’s personnel. There is no parking in driveways (unless otherwise posted) or on the paved areas adjacent to the buildings. These areas need to be kept open for emergency vehicles. Anyone parking in a restricted area without an appropriate license may receive a parking citation issued by the Rock County Sheriff’s Department.

On-site parking is available at the Beloit Center, Center for Transportation Studies, Monroe Campus, and the Advanced Manufacturing and Transportation Center in Milton. The rules noted above also apply to these locations.

Tutoring and Learning Support

Blackhawk Technical College provides tutoring at no cost to enrolled students. A variety of methods are used to encourage student success including learning lab instructor assistance, drop-in computer assistance, peer tutors, and study groups. The College attempts to recruit tutors to serve students at all campuses and centers upon request. In addition, 24-7 online tutoring is available from any location that has an internet connection. If you need a tutor or are interested in becoming a tutor, call (608) 757-7656.
Weather-Related School Closings

Weather-related school closings will be given to area radio and TV stations by 5:30 a.m. for daytime classes and by 2:00 p.m. for evening classes. In the event of weather-related closings, listen to one of the radio or TV stations listed below or look for your BTC Safe Alert Communication (http://www.blackhawk.edu/Safety/SAFEAlert.aspx).

Please Note: BTC is listed as Blackhawk Technical College NOT Blackhawk Schools.

### Radio

<table>
<thead>
<tr>
<th>Station</th>
<th>City</th>
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</thead>
<tbody>
<tr>
<td>WTJK 1380 AM</td>
<td>Beloit</td>
</tr>
<tr>
<td>WEKZ 93.7 FM</td>
<td>Monroe</td>
</tr>
<tr>
<td>WKPO 105.9 FM</td>
<td>Janesville</td>
</tr>
<tr>
<td>WCLO 1230 AM</td>
<td>Janesville</td>
</tr>
<tr>
<td>WTSO 104 FM</td>
<td>Madison</td>
</tr>
<tr>
<td>WSJY 107 FM</td>
<td>Janesville/Fort Atkinson</td>
</tr>
<tr>
<td>WJVL 99.9 FM</td>
<td>Janesville</td>
</tr>
<tr>
<td>WEKZ 1260 AM</td>
<td>Monroe</td>
</tr>
<tr>
<td>WZOK 97.5 FM</td>
<td>Rockford</td>
</tr>
<tr>
<td>WGEZ 1490 AM</td>
<td>Beloit</td>
</tr>
<tr>
<td>WFAW 940 AM</td>
<td>Janesville/Fort Atkinson</td>
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### Television

<table>
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<td>WISC Channel 3</td>
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<tr>
<td>WKOW Channel 27</td>
<td>Madison</td>
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<tr>
<td>WMTV Channel 15</td>
<td>Madison</td>
</tr>
<tr>
<td>WTVO Channel 17</td>
<td>Rockford</td>
</tr>
<tr>
<td>WREX Channel 13</td>
<td>Rockford</td>
</tr>
<tr>
<td>WIFR Channel 23</td>
<td>Rockford</td>
</tr>
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</table>
ACADEMIC PROGRAMS

Since opening our doors more than 100 years ago, BTC has continually hosted a breadth of opportunity for students to earn Associate Degrees (p. 33), Technical Diplomas (http://catalog.blackhawk.edu/academics/technical-diplomas), Certificates (p. 72), apprenticeships (p. 76) and non-postsecondary offerings (p. 75).

- Accounting (p. 33)
- Accounting Assistant (p. 70)
- Administrative Support Professional (p. 55)
- Advanced (p. 55) Dental Assistant (p. 55)
- Advanced EMT (p. 56)
- Agribusiness Specialist (p. 56)
- Agribusiness/Science Technology (p. 34)
- Automotive: Basic Brake & Alignment Tech (p. 71)
- Automotive Technician (p. 57)
- Basic Corrections Academy (p. 72)
- Business Management (Associate Degree) (p. 34)
- Business Management (Certificate) (p. 72)
- Computer Hardware Support Certificate (p. 73)
- Computer Numeric Control (CNC) Technician (p. 58)
- Computer Service Technician (p. 59)
- Criminal Justice Studies (p. 35)
- Criminal Justice - Law Enforcement Academy (p. 60)
- Culinary Arts (p. 36)
- Culinary Production Specialist (p. 61)
- Diagnostic Medical Sonography & Vascular (p. 37)
- Diesel & Heavy Equipment Technician (p. 61)
- Early Childhood Education (p. 38)
- Electric Power Distribution (p. 62)
- Electro-Mechanical Technician (p. 39)
- Emergency Medical Technician (p. 63)
- Farm Business & Production Management (p. 63)
- Fire Protection Technician (p. 40)
- Foundations of Teacher Education (p. 41)
- Heating, Ventilation, Air Conditioning and Refrigeration Technology (p. 64)
- Human Resources (p. 42)
- Human Resource Generalist (p. 73)
- Human Services (p. 43)
- Individualized Tech Studies (p. 44)
- Industrial Maintenance Mechanic (p. 65)
- IT-Network Specialist (p. 45)
- IT-Web Software Developer (p. 46)
- Laboratory Food Science Technician (p. 46)
- Laboratory Technician Assistant (p. 65)
- Manual Lathe Machinist (p. 71)
- Manual Mill Machinist (p. 72)
- Manufacturing Information Technology Specialist (p. 66)
- Medical Administrative Coder (p. 47)
- Medical Assistant (p. 67)
- Medical Laboratory Technician (p. 48)
- Nuclear Technology (p. 49)
- Nursing (p. 50)
- Nursing Assistant (p. 67)
- Pharmacy Technician (p. 68)
- Phlebotomy Technician (p. 69)
- Physical Therapist Assistant (p. 51)
- Preschool Certificate (p. 74)
- Project Management (p. 74)
- Radiation Safety/Health Physics (p. 52)
- Radiography (p. 52)
- Residential HVAC (p. 71)
- Secure Juvenile Detention Academy (p. 74)
- Supply Chain Management (p. 54)
- Supply Chain Management Certificate (p. 74)
- Truck Driving (p. 69)
- Welding (p. 70)
- Associate Degrees (p. 31)
- Technical Diplomas (p. 32)
- Embedded Technical Diplomas (p. 32)
- Pathway Certificates (p. 32)
- BTC Certificates (p. 32)

**Associate Degrees**

- Accounting (p. 33)
- Business Management (p. 34)
- Criminal Justice Studies (p. 35)
- Culinary Arts (p. 36)
- Diagnostic Medical Sonography & Vascular (p. 37)
- Early Childhood Education (p. 38)
- Electro-Mechanical Technician (p. 39)
- Fire Protection Technician (p. 40)
- Foundations of Teacher Education (p. 41)
- Human Resources (p. 42)
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- Laboratory Food Science Technician (p. 46)
- Medical Administrative Coder (p. 47)
- Medical Laboratory Technician (p. 48)
- Nuclear Technology (p. 49)
- Nursing (p. 50)
- Physical Therapist Assistant (p. 51)
- Radiation Safety/Health Physics (p. 52)
- Radiography (p. 52)
- Supply Chain Management (p. 54)
Courses are offered in a variety of formats, including traditional (face to face), ITV (interactive distance learning), online and hybrid. These delivery systems should be selected carefully, as different methods of delivery require students to address their studies different ways. These following alternative delivery systems should be selected carefully:

**Technical Diplomas**
- Administrative Professional (p. 55)
- Advanced Dental Assistant (p. 55)
- Advanced EMT (p. 56)
- Agribusiness Specialist (p. 56)
- Automotive Technician (p. 57)
- Computer Numeric Control (CNC) Technician (p. 58)
- Computer Service Technician (p. 59)
- Criminal Justice - Law Enforcement Academy (p. 60)
- Culinary Production Specialist (p. 61)
- Diesel & Heavy Equipment Technician (p. 61)
- Electric Power Distribution (p. 62)
- Emergency Medical Technician (p. 63)
- Farm Business & Production Management (p. 63)
- Heating, Ventilation, Air Conditioning and Refrigeration Technology (p. 64)
- Industrial Maintenance Mechanic (p. 65)
- Laboratory Technician Assistant (p. 65)
- Manufacturing Information Technology Specialist (p. 66)
- Medical Assistant (p. 67)
- Nursing Assistant (p. 67)
- Pharmacy Technician (p. 68)
- Phlebotomy Technician (p. 69)
- Truck Driving (p. 69)
- Welding (p. 70)

**Embedded Technical Diplomas**
- Accounting Assistant (p. 70)
- Residential HVAC (p. 71)

**Pathway Certificates**
- Automotive: Basic Brake & Alignment Tech (p. 71)
- Manual Lathe Machinist (p. 71)
- Manual Mill Machinist (p. 72)

**BTC Certificates**
- Basic Corrections Academy (p. 72)
- Business Management (p. 72)
- Computer Hardware Support Certificate (p. 73)
- Human Resource Generalist (p. 73)
- Preschool Certificate (p. 74)
- Project Management (p. 74)
- Secure Juvenile Detention Academy (p. 74)
- Supply Chain Management Certificate (p. 74)

**Technical Diplomas**
- Administrative Professional (p. 55)
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- Culinary Production Specialist (p. 61)
- Diesel & Heavy Equipment Technician (p. 61)
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- Emergency Medical Technician (p. 63)
- Farm Business & Production Management (p. 63)
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- Laboratory Technician Assistant (p. 65)
- Manufacturing Information Technology Specialist (p. 66)
- Medical Assistant (p. 67)
- Nursing Assistant (p. 67)
- Pharmacy Technician (p. 68)
- Phlebotomy Technician (p. 69)
- Truck Driving (p. 69)
- Welding (p. 70)

**Traditional (Face-to-Face)**
These courses typically meet several times a week over the course of a semester. Instructors meet face-to-face with students in a traditional classroom or laboratory setting.

**ITV (Interactive Distance Learning)**
Courses are offered over the compressed video system in specially equipped classrooms.

**Hybrid (Combination of Face-to-Face and Online)**
A hybrid course is a course in which the content is delivered in a blend of face-to-face and online. Between 40% and 60% of the content will be delivered online. Students need regular access to a computer with a high speed Internet Connection.

**Online**
100% of the content is delivered online. Proctored testing/assessment may be required. Students need regular access to a computer with a high speed Internet connection.

**FlexLab MyEdChoice**
The labs can be completed at flexible times but must be done at the specified campus during lab hours.

Students can choose to receive the non-lab instructional content in the following ways.

- in the classroom at a set class time
- live during class time using video conferencing
- online at anytime

**FlexLab Hybrid**
The lab times are flexible times but must be done at the specified campus during lab hours. The non-lab instructional content is delivered online.

**MyEdChoice**
No lab is associated with this format.

Students can choose from three different ways to attend each week/day of the class.

- in the classroom at a set class time
- live during class time using video conferencing
- online at anytime

Participation is counted through: 1) comments/activities in the classroom or using video conferencing or 2) through online discussions/online activities.
**Associate Degrees**

These programs provide day and evening educational opportunities at the two-year associate degree level. Associate degree programs at BTC are developed to assist those preparing for, or advancing in, an occupation. The degree is awarded for successful completion of a program primarily intended for employment. About 30% of the course work is in general education; the remaining 70% is in technical studies.

The general education courses and some occupational credits earned in associate degree programs may transfer to a two- or four-year institution of higher education. Students interested in transferring credits should review BTC’s current transfer agreements [https://www.blackhawk.edu/Programs-Classes/Transfer-After-BTC](https://www.blackhawk.edu/Programs-Classes/Transfer-After-BTC).

**Accounting**

*Associate Degree*

10-101-1

The Associate of Applied Science degree in Accounting prepares its graduates for entry-level positions in a variety of business enterprises. The Accounting program is designed to build a solid foundation in accounting principles, theories, and practices. Program objectives focus on the study of financial, managerial, and tax accounting theory and procedures along with developing intellectual, interpersonal, and communication skills. Over the course of study students develop the ability to apply generally accepted accounting principles, make sound and ethical decisions, and use common business and accounting software.

**Program Outcomes**

- Prepare financial statements and related schedules in conformity with generally accepted accounting principles.
- Apply accounting skills and principles creatively and innovatively in accordance with the standards of professional ethics.
- Process financial transactions throughout the accounting cycle.
- Analyze financial and business information to support planning and decision-making.
- Perform payroll preparation, reporting, and analysis tasks.
- Perform cost accounting preparation, reporting, and analysis tasks.
- Perform individual and/or organizational tax accounting preparation, reporting, and analysis tasks.
- Identify internal controls to reduce risk.

**Graduates Have Found Employment As**

- Accounts Payable/Receivable Clerk
- Payroll Clerk
- Accounting Clerk
- Assistant Accounting Manager
- Accountant
- Accounting Assistant
- Cost Accountant
- Plant/Branch Accountant

View the entire course listing (p. 79).

### Semester 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>101-111</td>
<td>Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>102-148</td>
<td>Introduction to Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>103-128</td>
<td>Introduction to Microsoft Office Suites</td>
<td>2</td>
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<tr>
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### Semester 2

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<tbody>
<tr>
<td>101-112</td>
<td>Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>101-130</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>101-135</td>
<td>Payroll Accounting</td>
<td>2</td>
</tr>
<tr>
<td>101-136</td>
<td>Computerized Accounting</td>
<td>2</td>
</tr>
<tr>
<td>103-107</td>
<td>Intermediate Excel</td>
<td>2</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech or Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or 801-196</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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### Semester 3

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<tr>
<td>101-113</td>
<td>Corporate Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>101-123</td>
<td>Income Tax Accounting</td>
<td>4</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-143</td>
<td>Microeconomics</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Credits</strong></td>
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### Semester 4

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<tbody>
<tr>
<td>101-124</td>
<td>Applied Income Tax or Accounting Internship</td>
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<tr>
<td>or 101-134</td>
<td></td>
<td></td>
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<tr>
<td>101-150</td>
<td>AIPB Certified Bookkeeper Review</td>
<td>3</td>
</tr>
<tr>
<td>101-125</td>
<td>Cost Accounting</td>
<td>4</td>
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<tr>
<td>103-126</td>
<td>Introduction to QuickBooks</td>
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<tr>
<td>103-178</td>
<td>Advanced Microsoft Excel</td>
<td>2</td>
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<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Credits</strong></td>
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**Total Credits: 60**

### General Education Courses Within Program

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<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
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<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech or Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>or 801-196</td>
<td></td>
<td></td>
</tr>
<tr>
<td>809-143</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
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</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Accounting Career
Agribusiness/Science Technology

Associate Degree
10-006-2

The Agribusiness/Science technology focus of this program gives students the skills needed to run their own agribusiness operation or help other agricultural producers become more successful. Students will learn how to merge business and science to produce a product and make a profit. Through hands-on learning and on-the-job experience, students gain skills in animal science and nutrition, integrated pest management, soil science, crop production and precision agriculture. Students develop crop management, livestock management, and business plans as well as learn how to enhance success through sales, marketing and business management. This program will provide opportunities in a variety of agribusiness career pathways.

Program Outcomes

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

Graduates Have Found Employment As

- Sales Representative
- Service Representatives
- Farm Manager
- Agricultural Technician

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
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<tbody>
<tr>
<td>006-101 Contemporary Issues in Sustainability</td>
<td>1</td>
</tr>
<tr>
<td>006-102 Emerging Agriculture Technologies</td>
<td>2</td>
</tr>
<tr>
<td>006-108 Commercial Drivers Training</td>
<td>1</td>
</tr>
<tr>
<td>006-116 Introduction to Soils</td>
<td>3</td>
</tr>
<tr>
<td>006-169 Career Develop in Agriculture</td>
<td>2</td>
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<tr>
<td>102-148 Introduction to Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>801-196 Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-123 Math with Business Applications</td>
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<td><strong>Credits</strong></td>
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<table>
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<tbody>
<tr>
<td>006-103 Agricultural Commodity Marketing</td>
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<tr>
<td>006-105 Nutrient Management</td>
<td>3</td>
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<tr>
<td>006-107 Pest Management/Applicator Training</td>
<td>3</td>
</tr>
<tr>
<td>006-160 Plant Science and Crop Science</td>
<td>3</td>
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<tr>
<td>006-162 Farm Records and Business Management</td>
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Summer between year 1 and year 2

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<tr>
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<tr>
<td>006-197 Agribusiness Internship</td>
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<table>
<thead>
<tr>
<th>Semester 3</th>
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<tr>
<td>006-165 Livestock Nutrition</td>
<td>3</td>
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<tr>
<td>006-181 Crop Management</td>
<td>3</td>
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<tr>
<td>104-102 Marketing Principles</td>
<td>3</td>
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<tr>
<td>801-195 Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>809-198 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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</table>

Semester 4

<table>
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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>006-164 Livestock Management</td>
<td>3</td>
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</tr>
<tr>
<td>006-166 Precision Agriculture Technologies</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>104-104 Selling Principles</td>
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<tr>
<td>809-143 Microeconomics</td>
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<td><strong>Credits</strong></td>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>801-195 Written Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>801-196 Oral/Interpersonal Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>804-123 Math with Business Applications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>809-198 Introduction to Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>809-143 Microeconomics</td>
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</tbody>
</table>

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>801-195 Written Communication</td>
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<tr>
<td>801-196 Oral/Interpersonal Communication</td>
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<tr>
<td>804-123 Math with Business Applications</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>809-198 Introduction to Psychology</td>
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<td></td>
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<tr>
<td>809-143 Microeconomics</td>
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</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Agribusiness Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/agri-science-tech/AgribusinessSpecialistCareerPath.pdf) (PDF).

Business Management

Associate Degree
10-102-3

The Associate of Applied Science degree in Business Management prepares students for entry-level careers in business-related occupations and to start their own business. The training provides broad and foundational business skills in managing business operations, including marketing, finance, human resources, accounting, project management, team leadership, business technologies, and business communications. The program emphasizes the five functions of management: planning, organizing, staffing, directing, and controlling. General Education supporting outcomes include written, oral and interpersonal communications, mathematics, economics, and psychology.
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.

Graduates Have Found Employment As
- Assistant Store Manager
- Branch Manager
- Buying and Planning Specialists
- Customer Service Manager
- Department or District Manager
- Distribution Center Manager
- Entrepreneur/Owner
- General Management Occupations
- Human Resources
- Shift Managers
- Store and Operations Specialties Managers
- Team Leaders

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-148 Introduction to Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>104-102 Marketing Principles</td>
<td>3</td>
</tr>
<tr>
<td>103-128 Introduction to Microsoft Office Suites</td>
<td>2</td>
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<tr>
<td>801-195 Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196 or 801-198 Oral/Interpersonal Communication or Speech</td>
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</table>

| Credits | 14 |

<table>
<thead>
<tr>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>102-109 Business Careers Planning and Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>102-115 Management Principles</td>
<td>3</td>
</tr>
<tr>
<td>116-193 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>804-123 or 804-118 Math with Business Applications or Intermediate Algebra with Applications</td>
<td>3</td>
</tr>
<tr>
<td>809-143 Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

| Credits | 15 |

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-117 Accounting Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>102-120 Small Business Management</td>
<td>3</td>
</tr>
<tr>
<td>102-122 Business Sustainability Planning</td>
<td>3</td>
</tr>
<tr>
<td>102-160 Business Law</td>
<td>3</td>
</tr>
<tr>
<td>104-104 Selling Principles</td>
<td>3</td>
</tr>
<tr>
<td>102-155 Introduction to Project Management</td>
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</table>

| Credits | 18 |

<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-121 Customer Service Management</td>
<td>3</td>
</tr>
<tr>
<td>102-127 Business Management Internship or 102-128 Business Plan and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>102-130 Business Finance and Budget Management</td>
<td>3</td>
</tr>
<tr>
<td>102-150 Global Business Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>809-198 Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

| Credits | 15 |

<table>
<thead>
<tr>
<th>General Education Courses Within Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
</tr>
<tr>
<td>801-195</td>
</tr>
<tr>
<td>801-196 or 801-198</td>
</tr>
<tr>
<td>804-123 or 804-118</td>
</tr>
<tr>
<td>809-143</td>
</tr>
<tr>
<td>809-198</td>
</tr>
</tbody>
</table>

| Total Credits | 62 |

Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Business Management Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/business-management/BusinessMgmtCareerPath.pdf) (PDF).

Criminal Justice Studies

Associate Degree
10-504-5

Persons interested in careers in criminal justice will receive theoretical and practical information in the program. Criminal justice is becoming increasingly complex and important. Today's criminal justice employees must be trained to meet the challenges of our changing society. The Criminal Justice Studies Program courses, as well as support and general education courses, will prepare the student for a position as a law enforcement officer (state, county, municipal), correctional officer, juvenile detention officer, police dispatcher, or many other occupational areas in the criminal justice system.

Program Outcomes
- Examine the components of and interrelationships in the criminal justice system
- Analyze situational responses
- Apply communication skills as a criminal justice professional
- Conduct investigations
- Adhere to the professional code of ethics for a criminal justice practitioner
- Maintain personal wellness
• Explain the balance between protecting individual rights and ensuring public safety
• Identify government, community and social service agencies associated with the criminal justice system
• Identify correctional alternatives for juveniles
• Identify correctional alternatives for adults
• Interpret applicable criminal statutes

Graduates Have Found Employment As
• Eligibility to apply to law enforcement officer certification academy (police office and deputy sheriff)
• County Correctional Officer
• Juvenile Detention Officer
• Group Home Worker
• Community Juvenile Diversion Worker
• Case Manager (Halfway House)
• Private Security Officer
• State Prison Correctional Officer

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>504-922</td>
<td>The Criminal Justice System</td>
</tr>
<tr>
<td>504-923</td>
<td>Criminal Procedure</td>
</tr>
<tr>
<td>504-926</td>
<td>Juvenile Justice System</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td><strong>15</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credits</th>
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<tbody>
<tr>
<td>504-924</td>
<td>Substantive Criminal Law</td>
</tr>
<tr>
<td>504-925</td>
<td>Interview and Interrogation</td>
</tr>
<tr>
<td>520-114</td>
<td>Victimology</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>504-910</td>
<td>Introduction to Corrections</td>
</tr>
<tr>
<td>or 504-929</td>
<td>Policing and Crime Prevention</td>
</tr>
<tr>
<td>or 504-939</td>
<td>Juvenile Offenders and Family</td>
</tr>
<tr>
<td>504-911</td>
<td>Peacekeeping in a Diverse Society</td>
</tr>
<tr>
<td>504-921</td>
<td>Drugs, Society, Criminal Justice</td>
</tr>
<tr>
<td>504-927</td>
<td>Introductory Report Writing</td>
</tr>
<tr>
<td>809-159</td>
<td>Abnormal Psychology</td>
</tr>
<tr>
<td>999-999</td>
<td>Elective</td>
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<tr>
<td><strong>Credits</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Credits</th>
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<tbody>
<tr>
<td>504-928</td>
<td>Criminal Investigation Strategies</td>
</tr>
<tr>
<td>504-938</td>
<td>Patrol Procedures</td>
</tr>
<tr>
<td>or 504-941</td>
<td>Community Corrections</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
</tr>
<tr>
<td>806-110</td>
<td>Forensic Science (Criminalistics)</td>
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</tbody>
</table>

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>806-110</td>
<td>Forensic Science (Criminalistics)</td>
<td>3</td>
</tr>
<tr>
<td>809-159</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-188</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
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</tbody>
</table>

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Culinary Arts

**Associate Degree**

10-316-1

The Culinary Arts program combines elements of artistry, science and business skills to prepare students for an exciting career in Food Service. Students will study principles of food preparation, quantity production, equipment layout and operation management. Students are involved in preparation and serving experiences in the food service lab and receive additional opportunities in catering, ice sculpting and food presentation.

The Culinary Arts program at Blackhawk Technical College has been honored by the Wisconsin Technical College System (WTCS) board with the Exemplary Educational Service Award. The Blackhawk Technical College Culinary Arts Program is accredited by the American Culinary Federation.

**Program Outcomes**

• Enforce health and safety standards.
• Demonstrate food prep skills.
• Apply principles of nutrition.
• Recommend or modify business procedures to meet changing needs.
• Manage food purchases, storage, inventory and cost control.
• Supervise and assist in the development of employees.
• Design and implement menus.

Graduates Have Found Employment As

• Kitchen Manager
• Executive Sous Chef
• Executive Chef
• Restaurant Manager
Blackhawk Technical College

• Lead Cook
• Kitchen Supervisor

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>316-103</td>
<td>Food Service Industry and Menu Design</td>
</tr>
<tr>
<td>316-104</td>
<td>Food Quantities and Measures</td>
</tr>
<tr>
<td>316-108</td>
<td>Food Science I</td>
</tr>
<tr>
<td>316-109</td>
<td>Quantity Production of Soups, Salads, and Dressings</td>
</tr>
<tr>
<td>316-147</td>
<td>Food Service Sanitation</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
</tr>
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<td>Credits</td>
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<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>316-114</td>
<td>Quantity Production of Entrees, Sauces and Vegetables</td>
</tr>
<tr>
<td>103-128</td>
<td>Introduction to Microsoft Office Suites</td>
</tr>
<tr>
<td>316-115</td>
<td>Nutrition</td>
</tr>
<tr>
<td>316-149</td>
<td>Culinary Supervision</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
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<table>
<thead>
<tr>
<th>Semester 3</th>
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<tbody>
<tr>
<td>316-107</td>
<td>Culinary Externship</td>
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<tr>
<td>316-119</td>
<td>Baking For Chefs</td>
</tr>
<tr>
<td>316-125</td>
<td>Beverage Management</td>
</tr>
<tr>
<td>316-164</td>
<td>Advanced Cuisine</td>
</tr>
<tr>
<td>531-102</td>
<td>Emergency Procedure-Work Place</td>
</tr>
<tr>
<td>809-172</td>
<td>Introduction to Diversity Studies</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
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<thead>
<tr>
<th>Semester 4</th>
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<tbody>
<tr>
<td>102-139</td>
<td>Culinary Business Administration</td>
</tr>
<tr>
<td>316-131</td>
<td>Management of Short Order Service</td>
</tr>
<tr>
<td>316-136</td>
<td>Catering, Special Events and Contract Food Service</td>
</tr>
<tr>
<td>316-142</td>
<td>Ice Sculpturing and Decorative Food Display</td>
</tr>
<tr>
<td>316-159</td>
<td>Food Purchasing, Inventory and Cost Control</td>
</tr>
<tr>
<td>316-160</td>
<td>Gourmet Stocks and Sauces</td>
</tr>
<tr>
<td>316-165</td>
<td>Gourmet Foods</td>
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General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
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<td>3</td>
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<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
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</table>

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Diagnostic Medical Sonography & Vascular

Associate Degree 10-526-5

Diagnostic Medical Sonography, commonly called ultrasound, is a diagnostic medical procedure that uses high frequency sound waves to produce medical images of organs, tissues, or blood flow inside the body.

The profession of diagnostic medical sonography includes general sonography, cardiac sonography, vascular technology, and various subspecialties. The profession requires critical thinking and good judgment to provide appropriate health care services. Sonographer/vascular technologists are highly skilled professionals qualified by education to provide patient services using diagnostic techniques under the supervision of a physician. Although most sonographers work in hospital based medical imaging departments performing abdominal, pelvic and vascular examinations or cardiology departments performing cardiac and vascular examinations, sonographer are also employed in dedicated vascular departments or obstetric departments, where specialized ultrasound examinations are performed and many sonographers work outpatient clinics and mobile imaging services.

Program Outcomes

• Academic
• Clinical Education
• Graduate Certification
• Student Retention
• Patient Care and Safety
• Patient Interaction
• Professional Development
• Graduate Placement
• Graduate Satisfaction
• Employer Satisfaction

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Courses taken before semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>526-130</td>
<td>Introduction to Diagnostic Medical Sonography</td>
</tr>
<tr>
<td>526-132</td>
<td>DMS Clinical 1</td>
</tr>
<tr>
<td>526-146</td>
<td>DMS Cross Sectional Anatomy</td>
</tr>
</tbody>
</table>

Blackhawk Technical College Generated 04/2018 | 2017-2018
Early Childhood Education

806-139 Survey Of Physics 3
Credits 9

**Semester 1**

526-131 DMS General Procedures 1 4
526-134 DMS Clinical 2 2
526-136 DMS Physics I 3
806-175 General Pathophysiology 3
806-177 General Anatomy and Physiology 4
Credits 16

526-133 DMS General Procedures 2 4
526-137 DMS Clinical 3 2
526-139 DMS Physics 2 Instrumentation 2
801-195 Written Communication 3
806-179 Advanced Anatomy and Physiology 4
Credits 15

**Summer between year 1 and year 2**

526-135 DMS General Procedures 3 3
526-140 DMS Clinical 4 1
801-196 Oral/Interpersonal Communication 3
Credits 7

526-138 DMS General Procedures 4 4
526-141 DMS Vascular Procedures 1 4
526-142 DMS Clinical 5 2
809-196 Introduction to Sociology 3
Credits 13

526-143 DMS Vascular Procedures 2 3
526-144 DMS Clinical 6 2
526-145 DMS Registry Review 2
809-198 Introduction to Psychology 3
Credits 10

Total Credits 70

**General Education Courses Within Program**

<table>
<thead>
<tr>
<th>Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>806-139</td>
<td>Survey Of Physics</td>
<td>3</td>
</tr>
<tr>
<td>806-175</td>
<td>General Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>806-177</td>
<td>General Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>806-179</td>
<td>Advanced Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

**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.

**Graduates Have Found Employment As**

- Nannies
- Nursery Schools
- Day Care Centers
- Head Start Classrooms
- Infant Toddler Center
- Before & After School Child Care Centers
- Instructional Services Aide in public schools
- Early Childhood Centers Administration positions

View the entire course listing (p. 79).


**Early Childhood Education**

**Associate Degree 10-307:1**

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.

Early Childhood Education is a career option that has increased in demand. This expanding field is seeking potential students with keen observation skills, a talent for human insight, clear communication skills, and respect for children and families. Early Childhood Associate Degree graduates will meet the state educational requirements to be a Child Care Teacher in a licensed group early childhood center for children ages 2 weeks to 10 years old.

**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.

**Graduates Have Found Employment As**

- Nannies
- Nursery Schools
- Day Care Centers
- Head Start Classrooms
- Infant Toddler Center
- Before & After School Child Care Centers
- Instructional Services Aide in public schools
- Early Childhood Centers Administration positions

View the entire course listing (p. 79).
Electro-Mechanical Technology

**Associate Degree**
10-620-1

The study of Electro-Mechanical Technology (Automated Systems) gives graduates the ability and skills to work with today's computer integrated systems and robotics. The student will acquire knowledge and the ability to build and service equipment that is in high demand. The student will learn problem-solving skills to build and repair equipment.

The demand for automated systems technicians is high and many area companies are hiring technicians to design, construct, and support their computer systems. Graduates from this program fill positions in companies that use computer-driven control systems and mechanisms. This program emphasizes programming, design, updating, servicing, and operation of automated equipment and robotics systems. The technician is involved with many stages and aspects of an automation system.

**Program Outcomes**
- Perform work safely (TSA)
- Troubleshoot electrical and mechanical systems and devices
- Integrates safety protocol. (TSA)
- Repair electrical and mechanical systems (TSA)
- Communicate Technical Information (TSA)
- Integrate electrical and mechanical systems and devices (TSA)
- Operate power and hand tools and standard test equipment
- Diagnose a fault condition in a component or system
- Modify systems and components.
- Interpret specifications of schematics and procedure documentation

**Graduates Have Found Employment As**
- Automation Engineering Technician
- Medical Electronics Technician
- Pharmaceutical Process Technician
- Electronics Process Technician
- Robotics Technician
- Programmable Controller Program/Technician
- Vision Systems Specialist
- Field Service Technician
- Electronic Service Technician
- Maintenance Service Technician
- Network Technician
- Fluid Power Technician
- Machine Repair Technician
- CNC Service Technician

View the entire course listing (p. 79).

**General Education Courses Within Program**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>620-164</td>
<td>Safety 1</td>
<td>1</td>
</tr>
<tr>
<td>620-165</td>
<td>Safety 2</td>
<td>1</td>
</tr>
<tr>
<td>620-146</td>
<td>Mechanics 1</td>
<td>1</td>
</tr>
<tr>
<td>620-147</td>
<td>Mechanics 2</td>
<td>1</td>
</tr>
<tr>
<td>620-116</td>
<td>Fluid Power 1: Basic Pneumatics</td>
<td>1</td>
</tr>
<tr>
<td>620-117</td>
<td>Fluid Power 2: Basic Hydraulics</td>
<td>1</td>
</tr>
<tr>
<td>620-173</td>
<td>Blueprint Reading for Machine Prints</td>
<td>1</td>
</tr>
<tr>
<td>620-101</td>
<td>Fundamentals of DC circuits 1</td>
<td>1</td>
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<tr>
<td>620-102</td>
<td>Fundamentals of DC Circuits 2</td>
<td>1</td>
</tr>
<tr>
<td>620-109</td>
<td>Relay Logic</td>
<td>1</td>
</tr>
<tr>
<td>442-318</td>
<td>Introduction to Welding</td>
<td>1</td>
</tr>
</tbody>
</table>
programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Electro-Mechanical Technology Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/electro-mechanical-technician/ElectroMechanicalCareerPath.pdf) (PDF).

Fire Protection Technician

Associate Degree
10-503-2

The Fire Protection Technician Program offers the student an exciting career in fire protection, fire prevention and fire engineering. The field of the fire science is concerned with the preservation of life and property from fire and related hazards. The fire protection technician is a highly-skilled specialist with a unique blend of technical knowledge, management abilities, and public education and communication skills. Graduates are ideally suited to careers in public and private fire protection. Another area of employment opportunity exists in the field of sales and service with companies which manufacture and distribute fire protection equipment and related supplies. Expanding industrialization and population growth have created new fire problems which must be solved. In this area, the fire protection technician can be part of the team to design and research the answers to solve these problems which are making many demands upon communities, business, and industry.

The Fire Protection Technician Program is 4 semesters in length and most of the courses are oriented to firefighting, fire protection systems, and fire prevention. As part of the FPT an Emergency Medical Technician-Basic course is required either through a semester long course or split course delivery. Starting with a summer semester in between Semesters 2 and 3 of the FPT Program students may attend an Emergency Medical Technician-Fundamentals course. This 2 credit course is followed by a 3 credit Semester 3 course called EMT-Applications. These two courses equate to the regular, 5 credit, 180 hour, EMT-Basic course and part of the course requirements are to attend 10 hour of clinical time in district emergency rooms. Before FPT students are allowed at clinical sites they must undergo a criminal background check through Certified Background, now known as Castle Branch. This requirement must be completed in full and approved prior to registration; No exceptions will be made. There is an additional fee associated with the background check process and students will be required to fill out the Functional Ability form and students will be required to fill out the Functional Ability form and Acknowledgement of Risks and Release of Responsibility forms. Any and all revealing of past criminal activity may preclude students from being allowed at clinical sites and successfully completing the FPT Program.

Note: Prior to admission in either the EMT-Basic course or the EMT-Applications course students must also meet the immunization requirements set by the Centers for Disease Control (CDC) and provide proof of health insurance.

Program Outcomes

- Demonstrate professional conduct by displaying a personal code of ethics, positive work ethics, flexibility teamwork skills, physical fitness, safe procedures, and sensitivity to diverse cultures and individuals.
- Perform fire prevention activities including planning public education, inspection, and investigation.
• Communicate clearly and effectively both verbally and through written documentation with clients, coworkers, other agencies and supervisors.
• Apply incident management skills to emergency incidents.
• Meet professional fire and EMS credentialing standards.

This series is for all who wish to be certified by the State of Wisconsin. The emphasis is on skilled hands-on training. All classes require a Wisconsin Technical College System (WTCS) test for certification at the completion of each course.

Graduates Have Found Employment As
• Fire Fighter
• Fire Protection Technician
• Fire Fighting Equipment Specialist/Sales
• Fire Inspector
• Fire Fighter - Crash, Military, Government, State or Federal

View the entire course listing (p. 79).

### Semester 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>503-142</td>
<td>Fire Fighting Principles</td>
<td>4</td>
</tr>
<tr>
<td>503-153</td>
<td>Hazardous Materials Awareness &amp; Operations</td>
<td>1</td>
</tr>
<tr>
<td>503-191</td>
<td>Principles of Emergency Services</td>
<td>2</td>
</tr>
<tr>
<td>503-195</td>
<td>Fire Behavior and Combustion</td>
<td>3</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication or English Composition</td>
<td>3</td>
</tr>
<tr>
<td>809-172</td>
<td>Introduction to Diversity Studies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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</tr>
</tbody>
</table>

#### Semester 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>503-143</td>
<td>Building Construction for Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>503-159</td>
<td>Fire Fighting Principles II</td>
<td>2</td>
</tr>
<tr>
<td>503-192</td>
<td>Principles of Emergency Services</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>806-189</td>
<td>Basic Anatomy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
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#### Summer between year 1 and year 2

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<th>Code</th>
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<tbody>
<tr>
<td>503-125</td>
<td>Emergency Medical Technician Fundamentals</td>
<td>2</td>
</tr>
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<td></td>
<td><strong>Credits</strong></td>
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</table>

#### Semester 3

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>503-128</td>
<td>Emergency Medical Technician Applications</td>
<td>3</td>
</tr>
<tr>
<td>503-151</td>
<td>Fire Prevention</td>
<td>4</td>
</tr>
<tr>
<td>503-157</td>
<td>Fire Investigation</td>
<td>3</td>
</tr>
<tr>
<td>503-161</td>
<td>Community Service</td>
<td>1</td>
</tr>
<tr>
<td>503-193</td>
<td>Fire Protection Systems</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
<td><strong>17</strong></td>
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</tbody>
</table>

### General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-197</td>
<td>Technical Reporting</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>806-189</td>
<td>Basic Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>809-172</td>
<td>Introduction to Diversity Studies</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

### Foundations of Teacher Education

**Associate Degree**

10-522-2

As a paraeducator (instructional assistant), graduates of this program will work directly with students under the supervision of a licensed teacher. Your education will prepare you to fulfill multiple roles such as assisting students with assignments, guiding behavior, supporting students with special needs (including personal hygiene), and clerical tasks related to instruction. You may work with children from pre-kindergarten through age 21 during the traditional school day and year. Your career opportunities exist in preschools, elementary schools, middle schools, and high schools.

### Program Outcomes

- Support all learning based on knowledge of subject matter
- Identify developmentally appropriate child/adolescent physical, social/emotional, intellectual, and language characteristics and their developmental and environmental impact on learning
- Adapt instruction to meet the diverse needs of all learners
- Utilize a variety of instructional strategies, media, and technology to foster the development of critical thinking and problem solving
- Use proactive classroom management techniques to promote a positive class climate, intrinsic motivation, and optimal learning
• Demonstrate effective written and verbal communication in working collaboratively within the school setting and interactions with students and families
• Assist in planning and implementing instructional strategies that reflect the learning cycle
• Utilize informal assessment strategies to collect data for the support of student learning
• Incorporate the reflective process to promote student learning and professional growth
• Assume professional responsibility for ethical, moral, and legal policies and procedures
• Provide for health and safety needs of students

Graduates Have Found Employment As
A graduate of this program will have the potential for employment as an educational paraprofessional or paraeducator in schools from the pre-kindergarten through high school level. Paraeducators work with children in preschools, elementary schools, middle schools, and high schools. Paraeducators may also work in Wisconsin CESA organizations as well as their community partners. Paraeducators can also work with children with special needs.

- Paraeducators
- Paraprofessionals
- Teaching Assistants
- Instructional Assistants
- Educational Assistants
- Autism Behavior Technicians
- Specialized aides in Reading, Math, Computers, or Special Education
- Autism Line Therapists

### General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication or English Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>809-159</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

### Human Resources

**Associate Degree**
10-116-1

The Human Resources Program prepares students to assist small to mid-sized organizations in effectively recruiting, developing, and utilizing their human resources. Students learn how to maximize the human potential for the benefit of the organization. This field of employment requires knowledge and skills in the following areas: occupational job analysis, compensation, benefits, training, staffing, employee relations, safety, and human resources information systems. Careers such as HR Generalists or HR Specialists can be found in any non-profit, service or manufacturing organization. Human Resource Specialists can focus on areas such as employee recruitment/interviewing, employee training and development, wages and compensation, benefits, employee wellness, and occupational analysis. Students will have an opportunity to prepare for various related...
certifications such as from the Society of Human Resources (SHRM) and OSHA.

Program Outcomes

- Recruit and interview qualified candidates for available positions.
- Coordinate and conduct new employee orientations.
- Maintain personnel records and human resources information systems.
- Administer payroll and benefit programs.
- Organize health and safety programs.
- Coordinate employee training and education.
- Plan and implement employee relations activities.
- Understand employment law in order to assist managers and supervisors.
- Provide leadership with employee relations and EEO initiatives.
- Assist HR managers in larger organizations.

Graduates Have Found Employment As

- HR Manager/Coordinator/Administrator
- Training and Development Manager
- Compensation and Benefits Coordinator
- Employment and Placement Specialist
- Recruitment Specialist
- Labor Relations Specialist

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-148 Introduction to Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>116-168 Organizational Development</td>
<td>3</td>
</tr>
<tr>
<td>103-128 Introduction to Microsoft Office Suites</td>
<td>2</td>
</tr>
<tr>
<td>116-193 Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>801-195 Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-123 Math with Business Applications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-109 Business Careers Planning and Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>116-103 Employment Law</td>
<td>3</td>
</tr>
<tr>
<td>116-108 Health and Safety</td>
<td>3</td>
</tr>
<tr>
<td>116-116 Staffing Organizations</td>
<td>3</td>
</tr>
<tr>
<td>801-196 Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-115 Management Principles</td>
<td>3</td>
</tr>
<tr>
<td>116-102 Training and Development</td>
<td>3</td>
</tr>
<tr>
<td>116-115 Compensation and Benefits</td>
<td>3</td>
</tr>
<tr>
<td>116-119 Labor Relations</td>
<td>3</td>
</tr>
<tr>
<td>809-198 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-150 Global Business Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>116-137 Payroll Administration</td>
<td>3</td>
</tr>
<tr>
<td>116-138 Human Resource Practicum</td>
<td>3</td>
</tr>
<tr>
<td>116-152 Talent Management</td>
<td>3</td>
</tr>
<tr>
<td>809-196 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</tbody>
</table>

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Human Resources Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/human-resources/HumanResourcesCareerPath.pdf) (PDF).

Human Services

Associate Degree

10-520-3

The Human Services associate program at Blackhawk Technical College trains students to provide information, support, care and advocacy in a human service agency. Students will acquire the skills needed to work with individuals, groups and communities and will learn to work with people of diverse racial, ethnic and cultural backgrounds. General education courses included in the program develop in students a tool understanding of social problems. During the second year of the program, students will have the opportunity to participate in a Field Experience in a human service agency.

1. Model a commitment to cultural competence
2. Uphold the Ethical Standards and Values for Human Service Professionals.
3. Demonstrate professionalism
4. Utilize community resources
5. Apply human services interventions and best practices
6. Cultivate professional relationships

Associate degree graduates are ready for a range of professional positions in the field of human services including:

- Case Manager
- Community Support Worker
- Substance Abuse Counselor in Training
- Income Maintenance Worker
- Information and Referral Specialist
Individualized Tech Studies

- Intake Worker
- Outreach Worker
- Prevention Worker
- Resident Manager
- Volunteer Coordinator

With additional education and/or work experience, graduates may find employment as:

- Substance Abuse Counselor
- Program Director
- Social Worker

### Semester 1 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>520-100</td>
<td>Introduction to Human Services</td>
<td>3</td>
</tr>
<tr>
<td>520-101</td>
<td>Community Resources and Services</td>
<td>3</td>
</tr>
<tr>
<td>520-102</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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<td><strong>15</strong></td>
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### Semester 2 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>520-103</td>
<td>Interviewing Principles &amp; Documentation</td>
<td>3</td>
</tr>
<tr>
<td>520-104</td>
<td>Racial and Cultural Diversity in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>520-105</td>
<td>Intro to Addiction and Substance Abuse Disorders</td>
<td>3</td>
</tr>
<tr>
<td>520-106</td>
<td>Professional Practices in Human Services</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
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### Semester 3 Credits

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>520-107</td>
<td>Field Experience / Human Services</td>
<td>3</td>
</tr>
<tr>
<td>520-108</td>
<td>Children and Family Services</td>
<td>3</td>
</tr>
<tr>
<td>520-109</td>
<td>Group Facilitation</td>
<td>3</td>
</tr>
<tr>
<td>520-110</td>
<td>People with Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>801-195 or</td>
<td>Written Communication or English Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>801-136</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
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</table>

### Semester 4 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>520-111</td>
<td>Field Experience / Human Services</td>
<td>3</td>
</tr>
<tr>
<td>520-112</td>
<td>Human Services Organizational Operations</td>
<td>3</td>
</tr>
<tr>
<td>520-113</td>
<td>Rehabilitation Services</td>
<td>3</td>
</tr>
<tr>
<td>520-114</td>
<td>Victimology</td>
<td>3</td>
</tr>
<tr>
<td>804-107 or</td>
<td>College Mathematics or Intermediate Algebra with</td>
<td>3</td>
</tr>
<tr>
<td>804-118</td>
<td>Applications</td>
<td></td>
</tr>
<tr>
<td><strong>Credits</strong></td>
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</tbody>
</table>

**Total Credits**: 60

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### General Education Courses Within Program

**Code** | **Title**                              | **Credits** |
---------|----------------------------------------|-------------|
801-195  | Written Communication                  | 3           |
801-198  | Speech                                 | 3           |
804-107  | College Mathematics                    | 3           |
809-198  | Introduction to Psychology             | 3           |
809-196  | Introduction to Sociology              | 3           |

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Human Services career path (http://catalog.blackhawk.edu/academics/associate-degrees/human_services/Human_Services.pdf) (PDF).

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### Individualized Tech Studies

**Associate Degree**

10-825-1

Rapid changes in technology and work processes have created a growing demand for flexibility and enhanced skill levels in the workplace. Employers increasingly are seeking workers able to perform multiple tasks and roles that cut across traditional occupational categories. To be productive and effective in the changing workplace, workers may need skills and knowledge drawn from a variety of traditional areas of study. As a result, BTC has a versatile Individualized Technical Studies Degree which complements industry needs, enabling students interested in pursuing an Associate Degree to create a unique, individualized program. This specialized program of study combines the skills taught in two or more existing BTC programs, and is designed in cooperation with an occupational advisor from the target industry and an academic advisor from BTC. Students achieve their career goals by acquiring skills and knowledge in an Associate Degree program tailored to meet their specific employment needs.

Below are the general requirements for your Individualized Technical Studies degree. Working with your academic advisor, you can plan your Individualized Technical Studies degree program.

**General Education Courses (21-30 credits required)**

Communications (select at least two courses) - 6 credits total required

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-136</td>
<td>English Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-197</td>
<td>Technical Reporting</td>
<td>3</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social Science (select at least one course) - 3 credits total required**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>809-166</td>
<td>Introduction to Ethics: Theory and Application</td>
<td>3</td>
</tr>
<tr>
<td>809-172</td>
<td>Introduction to Diversity Studies</td>
<td>3</td>
</tr>
<tr>
<td>809-195</td>
<td>Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

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Blackhawk Technical College

Introduction to Sociology

Behavioral Science (select at least one course) - 3 credits total required

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-159</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-188</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>809-172</td>
<td>Introduction to Diversity Studies</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-166</td>
<td>Introduction to Ethics: Theory and Application</td>
<td>3</td>
</tr>
</tbody>
</table>

Mathematics or Science (select at least one course) - 3 credits total required

Select and appropriate mathematics or science course in consultation with your academic advisor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>804-133</td>
<td>Math and Logic</td>
<td>3</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Also select 6 additional credits of approved General Education courses to complete the General Education Course Requirements.

Individualized Technical Studies Courses (36-47 credits required)

Working with your academic advisor, select existing courses from the program areas in which you are interested. At least 20 credits must be focused in one of your desired areas.

Electives (0-6 credits required)

Select up to an additional 6 credits of electives that are relevant to your career goals.

Total Program Credits - 60-70

IT-Network Specialist

Associate Degree

The Network Specialist Associate of Applied Science Degree prepares students for a career in computer network support and integrated technology in order to meet business demands for information-sharing. Students receive training in network design, installation, troubleshooting, administration, security and management. After completing this program, the student will have covered basic topic areas needed for the MCSA, NET +, A+, Security+ and CCNA certifications.

Program Outcomes

- Implement computer networks
- Implement client systems
- Implement server operating systems
- Implement network security components
- Develop technical documentation
- Troubleshoot network systems
- Apply system analysis and design concepts
- Manage an Information Technology project from inception to implementation

Graduates Have Found Employment As

- Network Administrator
- Help Desk Specialist
- Network Support Specialist
- Technical Support Specialist
- Network Technician
- User Support Specialist
- Technical Consultant

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>631-100</td>
<td>Microcomputer Fundamentals</td>
</tr>
<tr>
<td>631-101</td>
<td>PC Software Fundamentals</td>
</tr>
<tr>
<td>631-102</td>
<td>PC Peripherals and Troubleshooting</td>
</tr>
<tr>
<td>631-106</td>
<td>IT Customer Service Fundamentals</td>
</tr>
<tr>
<td>631-111</td>
<td>PC Hardware Assessment</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
</tr>
<tr>
<td>Credits</td>
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<table>
<thead>
<tr>
<th>Semester 2</th>
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<tbody>
<tr>
<td>631-115</td>
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<tr>
<td>631-116</td>
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<tr>
<td>150-132</td>
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<tr>
<td>801-196</td>
</tr>
<tr>
<td>804-133</td>
</tr>
<tr>
<td>Credits</td>
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<table>
<thead>
<tr>
<th>Semester 3</th>
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</thead>
<tbody>
<tr>
<td>150-127</td>
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<td>150-128</td>
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<tr>
<td>150-117</td>
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<tr>
<td>152-150</td>
</tr>
<tr>
<td>809-198</td>
</tr>
<tr>
<td>Credits</td>
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<table>
<thead>
<tr>
<th>Semester 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>631-123</td>
</tr>
<tr>
<td>150-118</td>
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<tr>
<td>150-142</td>
</tr>
<tr>
<td>150-182</td>
</tr>
<tr>
<td>631-122</td>
</tr>
<tr>
<td>809-196</td>
</tr>
<tr>
<td>Credits</td>
</tr>
<tr>
<td>Total Credits</td>
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</tbody>
</table>
General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-133</td>
<td>Math and Logic</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

IT-Web Software Developer

**Associate Degree 10-152-4**

The IT-Web Software Developer Associate of Applied Science Degree meets the specific skills and knowledge requirements of technical and professional jobs within the information technology field for Web Development specialists including analyst/programmer, e-Commerce, or Web design/support. It is designed to meet entry-level education needs of most segments of the IT field which utilize a variety of computers. Training blends general educational development and required IT technical skills. Graduates are prepared for entry-level Web developer jobs in government, insurance, manufacturing, service, software development, wholesale and retail sales, utilities, banking and accounting.

**Program Outcomes**

- Design software systems
- Integrate database technologies
- Develop software applications
- Develop technical documentation
- Demonstrate work ethics and reliable behavior including, but not limited to, assuming responsibility for decisions and actions, utilizing time and stress managements skills, and displaying initiative
- Work as a team member by demonstrating good communication and listening skills, cooperation, and providing a supportive environment
- Demonstrate an understanding of the IT field and its job roles

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>631-100</td>
<td>Microcomputer Fundamentals</td>
</tr>
<tr>
<td>631-101</td>
<td>PC Software Fundamentals</td>
</tr>
<tr>
<td>631-102</td>
<td>PC Peripherals and Troubleshooting</td>
</tr>
<tr>
<td>631-106</td>
<td>IT Customer Service Fundamentals</td>
</tr>
<tr>
<td>631-111</td>
<td>PC Hardware Assessment</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>152-157</td>
<td>Website Development-XHTML/CSS</td>
</tr>
<tr>
<td>152-119</td>
<td>Introduction to Programming with JavaScript</td>
</tr>
<tr>
<td>152-163</td>
<td>Relational Database Design</td>
</tr>
<tr>
<td>631-123</td>
<td>Malicious Software Fundmtns</td>
</tr>
<tr>
<td>804-133</td>
<td>Math and Logic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>152-142</td>
<td>Introduction to .NET Programming</td>
</tr>
<tr>
<td>152-147</td>
<td>Relational Database Development</td>
</tr>
<tr>
<td>152-167</td>
<td>AJAX and JavaScript Website Development</td>
</tr>
<tr>
<td>152-182</td>
<td>Web Analyst Field Study</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
</tr>
</tbody>
</table>

| Credits     | 16 |

| Total Credits | 62 |

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-133</td>
<td>Math and Logic</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Laboratory Food Science Technician

**Associate Degree 10-506-6**

This associate degree option will build upon the lab skills in the one year technical diploma, by adding additional computer skills, additional hands on lab training in microbiology and food product testing, and a study of the regulations and regulatory agencies governing food production.

Graduates of the program will be prepared to work in a variety of industries related to food production and safety of the food supply. This includes but is not limited to breweries, cheese plants, sterile packaging facilities, food product testing labs, food safety testing labs.

- Lab Technician
- QC Scientist 1
- Food/Beverage Manufacturing Lab Tech
- Food Safety & Quality Auditor (Technician)
- Process Control Technician
- QC Lab Tech
- Quality Assurance Tech
- Food/Beverage Safety Coordinator
- Food/Beverage Safety Specialist
- Food Laboratory Technician
- Food Lab Associate
**Assignments:**

* Food Safety Technician

**Semester 1**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction to Microsoft Excel</td>
</tr>
<tr>
<td>1</td>
<td>Basic Laboratory Skills</td>
</tr>
<tr>
<td>2</td>
<td>Basic Laboratory Skills II</td>
</tr>
<tr>
<td>1</td>
<td>Laboratory Safety and Hazardous Materials</td>
</tr>
<tr>
<td>3</td>
<td>Written Communication</td>
</tr>
<tr>
<td>3</td>
<td>College Mathematics</td>
</tr>
<tr>
<td>4</td>
<td>General, Organic and Biological Chemistry</td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Intermediate Laboratory Skills</td>
</tr>
<tr>
<td>3</td>
<td>Quality Concepts in Laboratories</td>
</tr>
<tr>
<td>1</td>
<td>Data Management for Laboratory Assistants</td>
</tr>
<tr>
<td>3</td>
<td>Technical Reporting</td>
</tr>
<tr>
<td>3</td>
<td>Introductory Statistics</td>
</tr>
<tr>
<td>4</td>
<td>Microbiology</td>
</tr>
</tbody>
</table>

**Semester 3**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Food Microbiology</td>
</tr>
<tr>
<td>2</td>
<td>Introduction to the USDA and FDA</td>
</tr>
<tr>
<td>3</td>
<td>Excel and Access for the Laboratory</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Ethics: Theory and Application</td>
</tr>
<tr>
<td>2</td>
<td>Introduction to Molecular Diagnostics</td>
</tr>
<tr>
<td>1</td>
<td>ServSafe Certification Preparation</td>
</tr>
</tbody>
</table>

**Semester 4**

<table>
<thead>
<tr>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Food Production Regulations / HACCP GFSI, FSMA</td>
</tr>
<tr>
<td>1</td>
<td>Introduction to Business Sustainability</td>
</tr>
<tr>
<td>1</td>
<td>Lean Operations</td>
</tr>
<tr>
<td>1</td>
<td>Lean Tools</td>
</tr>
<tr>
<td>2</td>
<td>Food Laboratory Occupational Experience</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>3</td>
<td>Food and Nutritional Science</td>
</tr>
</tbody>
</table>

**Total Credits:** 60

**Medical Administrative Coder**

**Associate Degree 10-160-5**

The Medical Administrative Coder of Applied Science degree provides educational opportunities for those interested in working wherever knowledge of medical terminology and professional procedures and ethics are required. Examples include physician practices, large healthcare and allied health organizations such as clinics, hospitals, medical foundations, insurance companies, medical billing companies, medical publishers, research organizations, and medical product manufacturers. Medical Administrative Coder students receive specialized training in medical ethics, records management, medical terminology, human anatomy, health insurance, medical billing, medical transcription, medical coding Microsoft Office Suites software (Word, Excel, and PowerPoint).

**Program Outcomes**

- Demonstrate a commitment to the medical and legal aspects of healthcare office practices including confidentiality of health records, release of information, patients’ rights, use of health records as legal evidence, informed consent, malpractice, as well as agency, physician, and employee liability.
- Apply medical language and American Healthcare Documentation Integrity (AHDI) formatting guidelines in all written communication.
- Produce quality medical documents.
- Demonstrate the following professional traits while working in a healthcare office environment: dependability, punctuality, responsibility, acceptable appearance, sound judgment, ethical behavior, flexibility, and adaptability.
- Apply medical coding principles and guidelines for coding, billing, and reimbursement in outpatient settings at entry level proficiency.
- Use computers as tools for solving problems, collecting data, managing and communicating information, presenting ideas, and making decisions, as well as using all forms of telecommunications effectively.
- Use appropriate English skills in written and oral communications, as well as skills in listening to demonstrate effective communication integral to maintaining rapport with coworkers and clients.
- Use reference materials to research information.
- Apply analytical skills in solving problems, collecting data, managing and communication information, presenting ideas, and making decisions.
Graduates Have Found Employment As
- Medical Secretary
- Administrative Secretary
- Medical Coders (physician billing)
- Medical Transcriptionist
- Medical Records Technician/Medical Records Clerk
- Medical Voucher Clerk/Underwriting Clerk
- Receptionist
- Medical Insurance Biller
- Medical Clerk/Typist
- Clinic Clerk/Hospital Clerk/Admissions Clerk

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>160-113</td>
<td>Health Insurance 3</td>
</tr>
<tr>
<td>160-120</td>
<td>Medical Terminology for Coding 3</td>
</tr>
<tr>
<td>106-127</td>
<td>Administrative Office Communications 3</td>
</tr>
<tr>
<td>106-181</td>
<td>Office Professionalism 3</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication 3</td>
</tr>
<tr>
<td></td>
<td>Credits 15</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>160-114</td>
<td>Healthcare Records Management 3</td>
</tr>
<tr>
<td>160-136</td>
<td>Patient Billing and Reimbursement 4</td>
</tr>
<tr>
<td>160-185</td>
<td>Medical Microsoft Office Suites 3</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications 3</td>
</tr>
<tr>
<td>806-194</td>
<td>Survey of Anatomy and Physiology 3</td>
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<td>Credits 16</td>
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</table>

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Credits</th>
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<tbody>
<tr>
<td>160-105</td>
<td>Medical Editing and the Electronic Medical Record 3</td>
</tr>
<tr>
<td>160-118</td>
<td>Pharmacology for Medical Administrative Coder 2</td>
</tr>
<tr>
<td>530-150</td>
<td>Medical Office Coding I 4</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication 3</td>
</tr>
<tr>
<td>809-166</td>
<td>Introduction to Ethics: Theory and Application 3</td>
</tr>
<tr>
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<td>Credits 15</td>
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<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>160-103</td>
<td>Medical Transcription 4</td>
</tr>
<tr>
<td>160-109</td>
<td>Medical Office Administration 3</td>
</tr>
<tr>
<td>160-124</td>
<td>Supervised Occupational Experience-Medical Office 1</td>
</tr>
<tr>
<td>530-103</td>
<td>Medical Office Coding II 3</td>
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<td>809-198</td>
<td>Introduction to Psychology 3</td>
</tr>
<tr>
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<td>Credits 14</td>
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</table>

| Total Credits 60 |

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

801-196 | Oral/Interpersonal Communication 3 |
804-123 | Math with Business Applications 3 |
806-194 | Survey of Anatomy and Physiology 3 |
809-166 | Introduction to Ethics: Theory and Application 3 |
809-198 | Introduction to Psychology 3 |

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Medical Administrative Coder career path [here](http://catalog.blackhawk.edu/academics/associate-degrees/medical_admin_coding/MAC.pdf) (PDF).

Medical Laboratory Technician

**Associate Degree 10-513-1**

Prepare for a career as medical laboratory technician in hospitals, clinics and doctors’ offices. In the laboratory, the MLT and CLT perform analytical procedures under the supervision of a medical technologist or physician. Career potential also exists in epidemiology, forensic medicine and biomedical manufacturing.

The Blackhawk Technical College Medical Laboratory Technician Associate Degree Program is accredited through the National Accrediting Agency for Clinical Laboratory Science (NAACLS), 5600 N. River Rd, Suite 720, Rosemont, IL 60018. Phone: 773-714-8880, email: info@naaccls.org. A combination of fundamental laboratory techniques and clinical experience prepares graduates for work in laboratories serving the health care sector. The final semester of the program is a clinical experience in laboratories in community healthcare facilities. Students must petition to enter the clinical MLT classes, and should anticipate the possibility of traveling to complete the clinical experience.

Graduates of the program qualify for the American Society of Clinical Pathologists Board of Registry certification exam for medical laboratory technicians under the direction of the American Society of Clinical Pathologists.

**Suggested courses for program preparation:**

- One year of high school chemistry, biology and algebra or college equivalent (see specific requirements listed below).
- Medical terminology or 2 years of occupational experience in the medical field

**Program Requirements:**

To be admitted to the Medical Lab Technology (MLT) program, the student is required to have mandatory attendance at a Blackhawk Technical College MLT program orientation, High School Chemistry or College Chemistry Prep and High School Algebra or General College Math Review. are required for entrance into the BTC MLT Program

- Once admitted to the program, the following requirements must be met in order to participate in the clinical experience.
- Caregiver background check
• Physical exam and completed personal history form on file prior to the beginning of the first semester clinical rotation.
• Successful completion of all program courses with a C or better.

This program is offered at the Monroe Campus.

Program Outcomes
• Apply modern clinical methodologies including problem solving and troubleshooting according to predetermined criteria.
• Collect and process biological and other specimens.
• Perform and report results of clinical laboratory tests.
• Apply laboratory results to diagnosis of clinical conditions and/or diseases.
• Communicate with colleagues and patients in a professional manner.
• Participate in training peers on technical skills.
• Monitor and evaluate quality control in the laboratory.
• Practice laboratory safety and regulatory compliance.
• Perform information processing in the clinical laboratory.
• Model professional behaviors, ethics, and appearance.

Program Completion Three Year Statistics:
Program’s Graduate Certification Pass Rates: 69%
Program’s Graduation and Attrition Rates: 95.2%
Program’s Graduate Placement Rates: 68%

View the entire course listing (p. 79).

Courses taken before semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>513-113</td>
<td>Quality Assurance Laboratory Math</td>
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</table>

Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>506-102</td>
<td>Intermediate Laboratory Skills</td>
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Semester 2

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Semester 3

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Semester 4

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<td>506-105</td>
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General Education Courses Within Program

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<td>809-198</td>
<td>Introduction to Psychology</td>
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</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Medical Laboratory Technician Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/medical-laboratory-technician/MedLabTechCareerPath.pdf) (PDF).

Nuclear Technology

Associate Degree
10-624-1

Increasing the use of radiation and radioactive materials in today’s world has created demand for nuclear technicians especially in Janesville and Beloit, Wisconsin where the Department of Energy Nuclear Security Administration has approved Shine Medical Technologies and NorthStar Medical Radioisotopes, Inc. to build production plants in the next 2-3 years.

The Nuclear Technology Associate’s Degree program offers students an unique opportunity to obtain the specialized training to work with radioactive materials. In addition to being a high demand field, it also pays extremely well. In fact, according to the Department of Labor website, the median starting salary for this field in 2015 was $38.59 per hour! It’s also an excellent springboard for a four-year degree in health physics and radiation safety.
**SHARED PROGRAM**

Designed as a shared program with Lakeshore Technical College (LTC) (https://gotoltc.edu/academics/programs-of-study/nuclear-technology-program), classes may be offered in traditional classroom settings, online or using Interactive Television (ITV) to link instruction from both Blackhawk and LTC. In some cases, students may be asked to attend a class outside of their current district. Check with a program adviser for more details or to view the full-time program sheet click here. (https://gotoltc.edu/Assets/gotoltc.edu/pdf/academics/2018-2019-program-sheets/2018-2019-Nuclear-Technology.pdf)

**SPECIAL NOTES**

- Students can earn a Nuclear Uniform Curriculum Program (NUCP) certification by maintaining a “B” or above in all coursework (NUCP certification is contingent upon LTC’s NUCP partnership with a nuclear facility)...online students are not eligible.
- Gaining employment in the nuclear, radiation safety, and health physics likely includes a very comprehensive criminal background check, credit history, civil actions and a psychological profile.
- Online Option: Available to working adults in Nuclear/Radiation Safety/Health Physics industry. Online classes are constructed without hands-on lab components, therefore, online students should work with their industry supervisor to identify suitable activities at the work site.

**Program Outcomes**

- Work safely within industrial and radiological hazard areas.
- Diagnose equipment requiring electrical or mechanical repair and carry out preventive maintenance procedures.
- Understand and communicate nuclear technology-related concepts effectively in both oral and written formats.
- Perform radiological surveys for radiation and radioactive contamination.
- Follow procedures for operating and maintaining systems and equipment at nuclear facilities.
- Participate in applying nuclear technologies to a variety of industrial, medical, and research processes.
- Apply knowledge in a variety of related occupational jobs such as reactor plant operations, maintenance, quality assurance, etc.

**Potential Employment Opportunities**

- Nuclear Monitoring Technician
- Occupational Health and Safety Technician
- Chemical Technician
- Nuclear Engineer
- Power Plant Operator, Dispatcher or Distributor

**Nursing**

**Associate Degree**

10-543-1

The Associate Degree Nursing program prepares nurses to function with the knowledge, skill and judgment of beginning staff nurses in a variety of health care settings. The Associate Degree Program is accredited by the:

Accreditation Commission for Education in Nursing, Inc. (ACEN). For more information about this accreditation contact:

ACEN  
3343 Peachtree Road NE, Suite 850  
Atlanta, Georgia 30326  
Phone (404) 975-5000  
Fax (404) 975-5020  
http://www.acenursing.org

Graduates are eligible to apply to the Wisconsin Board of Nursing to take the examination for licensure as a Registered Nurse. State Administrative Code rules state that a graduate may have difficulty obtaining a license with an arrest or conviction record that is substantially related to nursing practice. The Coordinator of the program is available to discuss concerns in this area.

Students may apply for testing for licensure as L.P.N. (Licensed Practical Nurse) after successfully completing all courses through the second semester. L.P.N.’s entering into the ADN program may receive credit for past clinical education based on their current knowledge, skills and judgment. In order to help L.P.N.’s be program ready, they will need to take the Nursing Bridge course before entering third semester. Re-entry, transfer, and LPN students must contact the counseling office for information about entry to the nursing program. Acceptance to the program will be based upon space availability and approval of the nursing faculty.

**Program Outcomes**

- Implement one’s role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving professional identity as a nurse committed to evidence-based practice, caring, advocacy and quality care.
- Demonstrate appropriate written, verbal, and nonverbal communication in a variety of clinical contexts.
- Integrate social, mathematical, and physical sciences, pharmacology, and pathophysiology in clinical decision making.
- Provide patient centered care by utilizing the nursing process across diverse populations and health care settings.
- Minimize risk of harm to patients, members of the health care team and self through safe individual performance and participation in system effectiveness.
- Lead the interprofessional health care team to provide effective patient care throughout the lifespan.
- Use information and technology to communicate, manage data, mitigate error, and support decision-making.

Graduates may work as a Registered Nurse or Licensed Practical Nurse in a variety of settings including acute care, long term care, or some community settings.

View the entire course listing (p. 79).

**Semester 1**

<table>
<thead>
<tr>
<th>Credits</th>
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</table>
| 543-101 | Nursing Fundamentals | 2  
| 543-102 | Nursing Skills | 3  
| 543-103 | Nursing Pharmacology | 2  
| 543-104 | Nsg: Intro Clinical Practice | 2  

Blackhawk Technical College • Generated 04/2018 | 2017-2018
Semester 2

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<td>543-106</td>
<td>Nursing Health Promotion</td>
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<td>543-107</td>
<td>Nsg: Clin Care Across Lifespan</td>
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<td>Nsg: Intro Clinical Care Mgt</td>
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Semester 3

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<td>Nsg: Mental Health Comm Con</td>
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Semester 4

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<td>Nsg: Mgt &amp; Profess Concepts</td>
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<td>Nsg: Adv Clinical Practice</td>
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<td>543-116</td>
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<td>Introduction to Sociology</td>
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**Total Credits** 70

### General Education Courses Within Program

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<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
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<td>806-177</td>
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<td>809-188</td>
<td>Developmental Psychology</td>
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**Course Information**: Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Nursing Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/nursing/NursingCareerPath.pdf) (PDF).

### Physical Therapist Assistant

**Associate Degree** 10-524-1

The physical therapist assistant (PTA) is a technically educated health provider who assists the physical therapist (PT) in the provision of physical therapy and may perform physical therapy interventions selected by the supervising PT. The PTA works under the direction and supervision of the PT, helping manage conditions such as back and neck injuries related to work and sports, and others. PTA’s work in a broad range of settings. Employment opportunities for PTA’s are located in hospitals, outpatient clinics, rehabilitation facilities, skilled nursing, sub acute, and long-term care facilities, home health agencies, schools, hospice, industrial health clinics, community health centers, fitness centers and sports training facilities, and colleges and universities.

**Program Outcomes**

- Demonstrate clear and collaborative communication with patients, families, and the health care team
- Exhibit behaviors and conduct that reflect respect and sensitivity according to physical therapy practice standards
- Function under the supervision of a physical therapist in a safe, legal ethical manner to ensure the safety of patients, self, and others throughout the clinical interaction
- Produce documentation to support the delivery of physical therapy services
- Demonstrate critical thinking skills to implement and modify treatment within a plan of care under the direction and supervision of a physical therapist.
- Perform data collection essential for carrying out the plan of care under the direction and supervision of a physical therapist
- Perform technically competent evidence-based interventions under the direction and supervision of a physical therapist
- Educate patients, families and other health care providers
- Integrate components of operational and fiscal practices of physical therapy service in a variety of settings
- Implement a self-directed plan for career development, credentials and lifelong learning

View the entire course listing (p. 79).

**Courses taken before semester 1**

<table>
<thead>
<tr>
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<th>Credits</th>
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**Semester 1**

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<td>PTA Patient Interventions</td>
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<td>524-156</td>
<td>PTA Applied Kinesiology 1</td>
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<td>PTA Applied Kinesiology 2</td>
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<td>PTA Therapeutic Modalities</td>
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<tr>
<td>524-145</td>
<td>PTA Principles of Musculoskeletal Rehabilitation</td>
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<td>524-147</td>
<td>PTA Clinical Practice 1</td>
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Semester 3

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<tr>
<td>524-140</td>
<td>PTA Professional Issues 1</td>
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<td>524-144</td>
<td>PTA Principles of Neuromuscular Rehabilitation</td>
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<td>524-146</td>
<td>PTA Principles of Cardiopulmonary &amp; Integumentary Conditions</td>
<td>3</td>
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<td>524-148</td>
<td>PTA Clinical Practice 2</td>
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<td>809-166</td>
<td>Introduction to Ethics: Theory and Application</td>
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<td>PTA Professional Issues 2</td>
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<td>524-151</td>
<td>PTA Clinical Practice 3</td>
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<td>809-172</td>
<td>Introduction to Diversity Studies</td>
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General Education Courses Within Program

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<td>Oral/Interpersonal Communication</td>
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<td>Introduction to Ethics: Theory and Application</td>
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<td>809-172</td>
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</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
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</tr>
</tbody>
</table>

Total Credits: 70

The Radiation Safety/Health Physics Associate's Degree program offers individuals who are employed in the industry a unique opportunity to obtain the specialized training to work with radioactive materials. In addition to being a high demand field, it also pays extremely well. In fact, according to the Department of Labor website, the median starting salary for this field in 2015 was $38.59 per hour! It's also an excellent springboard for a four-year degree in health physics and radiation safety.

SHARED PROGRAM

Designed as a shared program with Lakeshore Technical College (LTC), classes may be offered in traditional classroom settings, online or using Interactive Television (ITV) to link instruction from both Blackhawk and LTC. In some cases, students may be asked to attend a classes outside of their current district. Check with a program adviser for more details or to view the full-time program sheet click here. (https://gotoltc.edu/academics/programs-of-study/radiation-safety-health-physics)

SPECIAL NOTE

This program is designed for working adults in the Nuclear/Radiation/Health Physics industry. It is an online program that allows participants to access both archived and live synchronous lectures in the 10624 courses. Most classes have prerequisites and the program is constructed without lab components, therefore, students should work with their industry supervisor to identify suitable activities at their worksite.

Program Outcomes

- Work safely within industrial and radiological hazard areas.
- Understand and communicate nuclear technology-related concepts effectively in both oral and written formats.
- Perform radiological surveys for radiation and radioactive contamination.
- Follow procedures for operating and maintaining systems and equipment at nuclear facilities.
- Participate in applying nuclear technologies to a variety of industrial, medical, and research processes.
- Apply knowledge in a variety of related occupational jobs such as reactor plant operations, maintenance, quality assurance, etc.

Potential Employment Opportunities

- Nuclear Monitoring Technician
- Occupational Health and Safety Technician
- Neurodiagnostic Technologist
- Surgical Technologist
- Respiratory Therapy Technician

Radiography

Associate Degree
10-526-1

Radiography prepares individuals for a career in diagnostic radiology (X-Ray) as a radiographer. The radiographer is a technologist who produces
images of the human body to aid physicians in the diagnosis of injuries and diseases. Graduates of the program are eligible to take the entry-level certification examination administered by the American Registry of Radiography Technologists (ARRT) and may obtain employment in the x-ray departments associated with hospitals, medical clinics, veterinary clinics, and private offices. Program curriculum focuses on theoretical and applied radiography and includes a clinical experience in a radiographic department. The program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Students learn to use x-ray imaging machines to demonstrate body parts on x-ray films for diagnostic purposes, including diagnostic radiology, bedside and trauma procedures, pediatric radiography, and special procedures.

Program Outcomes

- Carry out the production and evaluation of radiographic images
- Apply computer skills in the radiographic clinical setting
- 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

The methodology used to evaluate and assess the radiography outcomes is provided in detail to students during the new student orientation and is available to applicants of the program upon request.

View the entire course listing (p. 79).

Courses taken before semester 1

<table>
<thead>
<tr>
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Semester 1

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<td>Radiographic Procedures 1</td>
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</tr>
<tr>
<td>526-159</td>
<td>Radiographic Imaging 1</td>
<td>3</td>
</tr>
<tr>
<td>526-192</td>
<td>Radiography Clinical 2</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
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</tbody>
</table>

Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>526-170</td>
<td>Radiographic Imaging 2</td>
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<tr>
<td>526-191</td>
<td>Radiographic Procedures 2</td>
<td>5</td>
</tr>
<tr>
<td>526-193</td>
<td>Radiography Clinical 3</td>
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</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
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Summer between year 1 and year 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>526-199</td>
<td>Radiography Clinical 4</td>
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</table>

Semester 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>526-190</td>
<td>Radiography Clinical 5</td>
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526-194 Imaging Equipment Operation 3
526-195 Radiographic Quality Analysis 2
526-196 Modalities 3
809-143 Microeconomics 3

Semester 4

<table>
<thead>
<tr>
<th>Course</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>526-174</td>
<td>ARRT Certification Seminar</td>
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</tr>
<tr>
<td>526-189</td>
<td>Radiographic Pathology</td>
<td>1</td>
</tr>
<tr>
<td>526-197</td>
<td>Radiation Protection and Biology</td>
<td>3</td>
</tr>
<tr>
<td>526-198</td>
<td>Radiography Clinical 6</td>
<td>2</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
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</table>

Credits 11

Total Credits 70

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>806-177</td>
<td>General Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>809-143</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>809-196</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Radiography Career Path (http://catalog.blackhawk.edu/academics/associate-degrees/radiography/RadiographyCareerPath.pdf) (PDF).

The Blackhawk Technical College Associate Degree Radiography program is accredited by the Joint Review Committee on Education Radiologic Technology (http://www.jrcert.org) (JRCERT), 20 Wacker Dr., Suite 20, Chicago, IL 60606-3182, (312) 704-5300. http://www.jrcert.org

Graduates of the BTC radiography are eligible to sit for the certification examination in radiography prepared by the American Registry of Radiologic Technologies (https://www.arrt.org) (ARRT). https://www.arrt.org

Program Mission

The mission of the Blackhawk Technical College Associate Degree Radiography program is to prepare the Student to Practice Entry-Level Diagnostic Medical Radiography.

Program Goals

- Students Will Perform Competent Radiography
- Students Will Communicate Effectively
- Students Will Use Critical Thinking and Problem Solving Skills
- Students Will Demonstrate Professionalism
Supply Chain Management

Associate Degree
10-182-1

This Associate of Applied Science degree is a four-semester program composed of 64 college credit hours designed for students who plan to seek employment in the area of supply chain management upon graduation. The program prepares students to enter jobs, be productive with a minimum of on-the-job training, and advance to a position of increased responsibility with emphasis on project management and process improvement skills. In addition to the degree, students will be provided with the opportunity to become certified as a Six Sigma Green Belt and also as a Certified Technician through the Manufacturing Skills Standards Council.

Upon successful completion of this program, students will be able to:

- Define supply chain concepts and understand the flow of materials, information and money.
- Demonstrate their ability to plan for, purchase and manage inventories and identify its impact on organizations.
- Develop negotiation abilities and their capacity to understand and predict behaviors in competitive situations.
- Evaluate supply chain costs and the profitability that stems from effective management practices.
- Apply continuous improvement strategies to all aspects of supply chain management.
- Examine the importance of customer service in effectively coordinating supply chain activities.
- Exhibit effective collaboration, decision making, problem-solving, and conflict resolution skills.

Supply chain management includes a broad range of occupational titles. Those listed below are commonly found in industry, but specific titles will vary according to each individual employer. With additional education and/or work experience, Supply Chain Management program graduates may have additional opportunities in managerial roles such as plant manager, operations manager, production manager, warehouse manager, purchasing manager, inventory manager, distribution manager, transportation manager, logistics manager, and supply chain manager, among others.

Related Careers

General and Operations Manager (http://swtc.emsicareercoach.com/#OccID=11-102100&action=loadOccupationData)
$32.55 Hourly Wage 2,561 Currently Employed

Storage and Distribution Manager (http://swtc.emsicareercoach.com/#OccID=11-307102&action=loadOccupationData)
$31.02 Hourly Wage 169 Currently Employed

Wholesale and Retail Buyer, Except Farm Products (http://swtc.emsicareercoach.com/#OccID=13-102200&action=loadOccupationData)
$19.73 Hourly Wage 153 Currently Employed

Production, Planning, and Expediting Clerk (http://swtc.emsicareercoach.com/#OccID=43-506100&action=loadOccupationData)
$18.11 Hourly Wage 473 Currently Employed

Semester 1

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-131</td>
<td>Introduction to Business Sustainability</td>
</tr>
<tr>
<td>102-148</td>
<td>Introduction to Business and Management</td>
</tr>
<tr>
<td>182-103</td>
<td>Introduction to Supply Chain Management</td>
</tr>
<tr>
<td>103-128</td>
<td>Introduction to Microsoft Office Suites</td>
</tr>
<tr>
<td>801-195</td>
<td>Written Communication</td>
</tr>
<tr>
<td>804-123 or 804-118</td>
<td>Math with Business Applications or Intermediate Algebra with Applications</td>
</tr>
</tbody>
</table>

Credits: 15

Semester 2

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-115</td>
<td>Management Principles</td>
</tr>
<tr>
<td>102-109</td>
<td>Business Careers Planning and Business Communication</td>
</tr>
<tr>
<td>102-132</td>
<td>Lean Operations</td>
</tr>
<tr>
<td>104-104</td>
<td>Selling Principles</td>
</tr>
<tr>
<td>182-104</td>
<td>Inventory Management</td>
</tr>
<tr>
<td>809-143</td>
<td>Microeconomics</td>
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</tbody>
</table>

Credits: 16

Semester 3

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-133</td>
<td>Lean Tools</td>
</tr>
<tr>
<td>102-155</td>
<td>Introduction to Project Management</td>
</tr>
<tr>
<td>102-160</td>
<td>Business Law</td>
</tr>
<tr>
<td>182-106</td>
<td>Purchasing</td>
</tr>
<tr>
<td>103-107</td>
<td>Intermediate Excel</td>
</tr>
<tr>
<td>182-107</td>
<td>Distribution &amp; Logistics</td>
</tr>
<tr>
<td>801-196 or 801-198</td>
<td>Oral/Interpersonal Communication or Speech</td>
</tr>
</tbody>
</table>

Credits: 18

Semester 4

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>102-121</td>
<td>Customer Service Management</td>
</tr>
<tr>
<td>102-134</td>
<td>Lean Six Sigma</td>
</tr>
<tr>
<td>102-150</td>
<td>Global Business Fundamentals</td>
</tr>
<tr>
<td>182-105</td>
<td>Negotiations</td>
</tr>
<tr>
<td>182-108</td>
<td>Supply Chain Management Internship</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
</tr>
</tbody>
</table>

Credits: 15

Total Credits: 64

First-Line Supervisor of Production and Operating Workers (http://swtc.emsicareercoach.com/#OccID=51-101100&action=loadOccupationData)
$22.35 Hourly Wage 1,455 Currently Employed

Shipping, Receiving, and Traffic Clerk (http://swtc.emsicareercoach.com/#OccID=43-507100&action=loadOccupationData)
$13.88 Hourly Wage 865 Currently Employed

Blackhawk Technical College Generated 04/2018 | 2017-2018
General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-198</td>
<td>Speech</td>
<td>3</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
<tr>
<td>or 804-118</td>
<td>Intermediate Algebra with Applications</td>
<td></td>
</tr>
<tr>
<td>809-143</td>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>809-198</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduates Have Found Employment As

- Administrative Professional
- Administrative Coordinator
- Administrative Specialist
- Customer Service Assistant
- Project Coordinator
- Support Professional

View the entire course listing (p. 79).

Semester 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-127</td>
<td>Administrative Office</td>
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<tr>
<td></td>
<td>Communications</td>
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<tr>
<td>106-181</td>
<td>Office Professionalism</td>
<td>3</td>
</tr>
<tr>
<td>106-183</td>
<td>Meeting and Event Planning</td>
<td>3</td>
</tr>
<tr>
<td>106-116</td>
<td>Customer Service Essentials</td>
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<tr>
<td>103-128</td>
<td>Introduction to Microsoft</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Office Suites</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Credits</td>
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</table>

Semester 2

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>116-193</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>106-160</td>
<td>Administrative Office</td>
<td>3</td>
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<tr>
<td>801-195</td>
<td>Written Communication</td>
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<td>804-123</td>
<td>Math with Business</td>
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<tr>
<td></td>
<td>Applications</td>
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<td>999-999</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Credits</td>
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</tbody>
</table>

Total Credits 29

Technical Diplomas

Technical programs are based on local needs of business and industry and are designed to assist those preparing for entry into, or advancing in, an occupation.

Technical Diploma programs may be less than one year, one year or two years in length. Occupational skills coursework comprises a minimum of 80 percent of the total class time spent in these programs. Supportive related course work may constitute the remaining curricular requirements. Related instruction for apprenticeship is included as a Technical Diploma program.

Administrative Support Professional

Technical Diploma
31-106-3

Blackhawk Technical College's Administrative Support Professional program is designed to provide challenging hands-on experience for the ever-evolving environment of the office. This one-year program develops knowledge of office procedures and professionalism along with the basics of creating, formatting and editing business documents. Students will also learn how to plan and schedule meetings and appointments; organize and maintain paper and electronic files; manage projects; conduct research; and disseminate information by using the telephone, mail services, and Microsoft Office applications. The coordination of travel and guest arrangements will also be studied.

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

Advanced Dental Assistant

Technical Diploma
31-508-1

The Dental Assistant Program prepares graduates to work with dentists as they examine and treat patients. Dental Assistants with documented skills also may carry out a variety of laboratory, clinical and office duties. Some dental assistants manage the office and are responsible for patient scheduling and bookkeeping functions. Graduates receive a technical diploma and are eligible to write the certification examination of the Dental Assisting National Board.
Most dental assistants work in general or specialized dental offices, either for individual dentists or for groups of dentists. Some dental assistants may choose to work for insurance companies, dental laboratories, or dental supply companies. The dental assistant also may find employment with federal agencies such as the Veteran’s Administration, States Public Health Services, the Armed Forces, or a state, county or city health facility.

Prior to enrolling in the Dental Assistant program (508) courses, students must complete an online criminal background check. There is an additional fee associated with the background check process.

**Program Outcomes**
- Perform a variety of advanced supportive dental procedures.
- Manage infection and hazard control.
- Produce diagnostic intraoral and extraoral radiographs on a variety of patients.
- Perform advanced dental laboratory procedures.
- Demonstrate professional behaviors, ethics, and appearance.
- Perform dental office business procedures.

**Graduates Have Found Employment As**
- Dental Assistant
- Dental Receptionist
- Dental Office Manager
- Dental Practice Manager
- Dental Lab Technician
- Dental Insurance Claims Processor
- Dental Sales Representative
- Dental Treatment Coordinator
- Dental Specialty Assistant

View the entire course listing (p. 79).

### General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-311</td>
<td>Communication</td>
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</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Advanced Dental Assistant Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/dental-assistant/DentalAssistantCareerPath.pdf) (PDF).

### Advanced EMT

**Technical Diploma**

30-513-6

The EMT typically represents one of the first components of the emergency medical system. This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>531-111 Advanced EMT/Int-Tech</td>
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</table>

Credits: 4

Total Credits: 4

Assume Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the EMT Technician Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/advanced-emt/Fire_EMTCareerPath.pdf) (PDF).

### Agribusiness Specialist

**Technical Diploma**

31-006-1

The Agribusiness Specialist program is a one-year technical diploma program providing students with the necessary skills and internship experience for future agriculture employment in a variety of settings. Topics within this program include: production, agricultural service and supply, agricultural marketing and sales, agricultural research, direct marketing as it pertains to agribusiness and agri-tourism. Students in the program will increase their skills in agribusiness management and marketing, agronomy, livestock management and nutrition, safe and sustainable agriculture practices, and renewable energy applications. This technical diploma program will utilize associate degree level courses and content which may articulate to two-year and four-year agriculture degrees.

This program is offered at the Monroe Campus.
Program Outcomes

Upon completion of this program, you will be able to:

• Evaluate Agribusiness management and technology use to enhance management practices to increase profitability.
• Apply management practices to produce agronomic crops in a profitable manner.
• Apply management practices to produce livestock products in a profitable manner.
• Identify potential career choices and apply skills necessary to gain employment.
• Research and utilize appropriate resources to solve problems.
• Use appropriate verbal communication techniques in personal and professional settings.
• Follow all safety and precautionary measures when working in agribusiness.
• Utilize strategies to market agricultural products based on predicted trends in agribusiness.
• Appreciate the diversity of agriculture and the use of sustainable practices

Graduates Have Found Employment As

• Farm, Ranch and other Agricultural Manager
• Chemical/Fertilizer Applicator
• Farm Products Purchasing Agent
• Crop Scouting Associate
• Agricultural product Sales agent
• Agricultural Research Technician
• Agricultural Marketing Specialist
• Nutrient Management Specialist
• Seed, Feed, Chemical, Fertilizer Associate
• Precision Ag Specialist

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>006-101</td>
<td>Contemporary Issues in Sustainability</td>
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</tr>
<tr>
<td>006-102</td>
<td>Emerging Agriculture Technologies</td>
<td>2</td>
</tr>
<tr>
<td>006-108</td>
<td>Commercial Drivers Training</td>
<td>1</td>
</tr>
<tr>
<td>006-116</td>
<td>Introduction to Soils</td>
<td>3</td>
</tr>
<tr>
<td>006-169</td>
<td>Career Develop in Agriculture</td>
<td>2</td>
</tr>
<tr>
<td>102-148</td>
<td>Introduction to Business and Management</td>
<td>3</td>
</tr>
<tr>
<td>801-196</td>
<td>Oral/Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>804-123</td>
<td>Math with Business Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Agribusiness Specialist Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/agribusiness-specialist/AgribusinessSpecialistCareerPath.pdf) (PDF).

Automotive Technician

Technical Diploma
32-404-2

Automotive Service Technicians diagnose and repair performance problems in cars. They also perform factory recommended maintenance procedures on new cars and trucks. The Blackhawk Technical College Automotive Technician Program is an Automotive Service Excellence (ASE) Certified two-year program aimed at preparing the student for passing ASE exams as the requisite professional experience is obtained. The program is designed to increase knowledge and skills in the areas of diagnostic testing, use of hand and machine tools, automotive parts, service references, computerized equipment and other technical equipment on ever more complex automobiles. Students are taught through practical shop and classroom experiences.

Program Outcomes

• Demonstrate professionalism appropriate for the auto service industry.
• Perform diagnosis, service, and repair of automotive internal combustion engines.
• Perform diagnosis, service, and repair of automotive automatic transmission/transaxle systems.
• Perform diagnosis, service, and repair of automotive manual drive train and axles systems.
• Perform diagnosis, service, and repair of automotive steering and suspension systems.
• Perform diagnosis, service, and repair of automotive brake systems.
• Perform diagnosis, service, and repair of automotive electrical/electronic systems.
• Perform diagnosis, service, and repair of automotive heating and air conditioning systems.
• Perform diagnosis, service, and repair of automotive engine performance systems.

**Graduates Have Found Employment As**
• Automotive Line Technician
• Automotive Specialty Technician
• Diagnostic Technician
• Service Manager
• Parts Manager
• Automotive Equipment and Part Sales
• Automotive Business Owner/Manager

View the entire course listing (p. 79).

### General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-311</td>
<td>Communication</td>
<td>2</td>
</tr>
<tr>
<td>804-306</td>
<td>Shop Mathematics I</td>
<td>2</td>
</tr>
<tr>
<td>806-315</td>
<td>Applied Science</td>
<td>2</td>
</tr>
</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Automotive Technician Career Path [here](http://catalog.blackhawk.edu/academics/technical-diplomas/automotive-technician/AutomotiveTechnicianCareerPath.pdf) (PDF).

### Computer Numeric Control (CNC) Technician

**Technical Diploma 32-444-1**

This two-year technical diploma program is designed to provide students with a broad technical background in both job-shop and production machining. The CNC Technician program was developed using the National Institute for Metalworking Standards (NIMS) and National Tooling & Machining Association standards. The courses are delivered in such a way to allow the students to experience a “hands-on” approach to learning. Furthermore, each student will spend his or her time learning in a practical setting.

Using the CNC/CAM software and equipment, including a four axis machining center, you will learn to select the proper tools and fixtures required to machine parts. A graduate of the program should be proficient in metal machining operations and planning procedures, demonstrating practical machining techniques in accordance with engineering drawing specifications.

Topics of study include Computer Numerical Control (CNC) programming; Computer Assisted Manufacturing (CAM) software; precision measuring devices including a CMM; precision CNC mills, CNC training and machining centers; blueprint reading; and applied shop mathematics. To complete the program, an internship is required.

### Program Outcomes

• Apply appropriate machine shop terminology.
• Promote a safe and well-maintained work place.
• Analyze information and formulate plans that will lead to the timely production of a quality product.
• Utilize appropriate work holding techniques and cutting tool technology as governed by the work piece material properties.
• Set up and operate common semi precision and precision metal cutting machines according to accepted national and international machining standards.
• Verify product conformance to design specifications using in-process and post process measurement devices and techniques.

Blackhawk Technical College  Generated 04/2018 | 2017-2018
Graduates Have Found Employment As

- CNC Technician
- CNC Programmer
- CNC Machinist
- CNC Operator
- Machine Tool Operator
- Apprentice Machinist
- Machine Set-up Person
- Tool Room Machinist
- Maintenance Machinist

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>421-385</td>
<td>Blueprint Reading 2</td>
</tr>
<tr>
<td>444-300</td>
<td>Shop Computing 2</td>
</tr>
<tr>
<td>444-301</td>
<td>Metrology 2</td>
</tr>
<tr>
<td>444-302</td>
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<td>444-303</td>
<td>Turning Fundamentals 2</td>
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<td>444-305</td>
<td>Milling Fundamentals 2</td>
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<td>444-309</td>
<td>Computer Numerical Control (CNC) Fundamentals 2</td>
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<td>444-310</td>
<td>Grinding and Gear Techniques 2</td>
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<td>Tooling and Workholding 2</td>
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<td>444-311</td>
<td>Computer Numerical Control (CNC) Turning Operations 2</td>
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<td>444-312</td>
<td>Computer Numerical Control (CNC) Turning - Operations and Programming 1 2</td>
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<td>444-314</td>
<td>Coordinate Measuring Machines (CMM) Techniques 2</td>
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<td>444-315</td>
<td>Computer Numerical Control (CNC) Milling - Operations 2</td>
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<td>444-321</td>
<td>Basic Computer Aided Design (CAD) / Computer Assisted Manufacturing (CAM) 2</td>
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| Semester 4 |

General Education Courses Within Program

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Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the CNC Technician Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/computer-numeric-control-cnc-technician/CNCTechnicianCareerPath.pdf) (PDF).

Computer Service Technician

Technical Diploma
31-450-1

The need for fully-trained, professional Computer Service and Network Technicians who are able to configure, troubleshoot, and support today's complex PC-based computing systems confidently and expertly is quickly evolving. This need is being driven by the rapid evolution in the power and complexity of PC hardware and software applications, as well as by the accelerating movement from stand-alone PC's to highly integrated networks.

This practical program provides extensive hands-on training with PC hardware, operating systems, and networks needed to keep PC-based system operational and functioning at peak efficiency. Graduates of this program have the knowledge, attitudes, skills, and habits needed to guide and implement the systematic enhancement of PC-based system as the technology continues to evolve.
Program Outcomes

- Apply effective customer satisfaction and field service techniques.
- Evaluate and repair PC hardware components.
- Evaluate and administer PC software applications.
- Evaluate and apply PC system and peripheral communication.
- Repair PC peripheral hardware and related systems.
- Compare LAN and WAN physical and logical fundamentals.
- Evaluate, administer, and repair network hardware.
- Apply PC system evaluation, installation, configuration, diagnosis and repair skills in the workplace.

Graduates Have Found Employment As

- Computer Service Technician
- Computer Support Specialist
- Service Support Specialist
- Service Engineer
- Help Desk Specialist
- Field Service Engineer
- Field Service Technician
- Communications Technician
- LAN Support Specialist
- Network Technician
- Network Installer

View the entire course listing (p. 79).

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Computer Service Technician Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/computer-service-technician/CST_MITSCareerPath.pdf) (PDF).

Criminal Justice - Law Enforcement Academy

About the Academy

In order to become certifiable as a police officer in Wisconsin, the State of Wisconsin - Law Enforcement Standards Board (LESB) requires successful completion of a 720 hour training curriculum (police academy training). **

Full-Time Academy - Fall/Spring Semester

The Law Enforcement Basic Recruit Academy is a program for those that are interested in a career in law enforcement. The program covers 720 instructional hours. ** Upon completion of the program, a student will be eligible for certification with the Wisconsin Department of Justice, Law Enforcement Training and Standards Board. The program focuses on both the theories of law enforcement and is coupled with the tactical skills necessary to be a police officer, deputy sheriff, or sworn member of law enforcement in Wisconsin.

Part-Time Academy - Fall Semester

The part-time Law Enforcement Basic Recruit Academy is a program for those that are interested in a career in law enforcement yet may have other life commitments which prevent them from attending a traditional full-time program. The program is a full year program consisting of 720 instructional hours. ** Upon completion of the program, a student will be eligible for certification with the Wisconsin Department of Justice, Law Enforcement Training and Standards Board. The program focuses on both the theories of law enforcement and is coupled with the tactical skills necessary to be a police officer, deputy sheriff, or sworn member of law enforcement in Wisconsin. The program meets Monday, Tuesday and Thursday nights from 5:30 p.m. until 10:00 p.m. The program also meets every-other Saturday as scheduled. The part-time option will not be available until Fall 2016.

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>804-306</td>
<td>Shop Mathematics I</td>
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</table>

Blackhawk Technical College  Generated 04/2018 | 2017-2018
Culinary Production Specialist

**Technical Diploma**
31-316-2

The Culinary Production Specialist One-Year Technical Diploma gives students the hands-on skills as well as technical and professional knowledge they need to start a career in the culinary industry within restaurants, catering services, hotels, healthcare facilities and schools. Students are prepared for careers such as Line Cooks, Prep Cooks, Broiler Chefs through in class and practical, on-the-job experiences within the local food industry.

**Program Outcomes**
- Apply principles of safety and sanitation in food service operations.
- Apply basic principles of nutrition.
- Demonstrate basic culinary skills.
- Assist in food service management.
- Plan menus.
- Explore food service financial information.

**Graduates have found employment as**
- Prep Cooks/Cooks
- Line Cooks
- Broiler Chefs or Garde Managers
- Sous Chefs
- Executive Chefs or Owner/Operators

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<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
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<tbody>
<tr>
<td>316-104 Food Quantities and Measures</td>
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<td>316-109 Quantity Production of Soups, Salads, and Dressings</td>
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<tr>
<td>316-111 Culinary Externship Adv I</td>
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<tr>
<td>316-131 Advanced Cuisine</td>
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<tr>
<td>316-147 Food Service Sanitation</td>
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<td>316-112 Culinary Externship Adv II</td>
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<td>316-114 Quantity Production of Entrees, Sauces and Vegetables</td>
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<tr>
<td>316-136 Catering, Special Events and Contract Food Service</td>
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Diesel & Heavy Equipment Technician

**Technical Diploma**
32-412-1

Diesel and heavy equipment technicians repair and maintain transportation equipment, such as heavy trucks, buses, locomotives, ships, and automobiles; construction equipment such as bulldozers, cranes, and road graders; and farm equipment such as tractors and combines. Many technicians perform a broad range of repairs from engines to electrical systems. Others specialize in repairs such as fuel and starting systems. Diesel and Heavy equipment technicians use a variety of computerized testing equipment to pinpoint and analyze malfunctions as well as numerous power and hand tools to perform repairs.

The Diesel and Heavy Equipment Technician Program is a two-year program providing job entry skills in service and repair of transportation, construction, industrial, and farm equipment. In addition to providing a foundation in the latest diesel technologies, the program improves skills needed to interpret technical manuals and communicate with coworkers and customers. Students in the program develop a broad base of skills, allowing them to enter the large and ever-expanding field of diesel and heavy equipment service and repair.

**Program Outcomes**
- Demonstrate professionalism appropriate for the diesel and heavy equipment service industries.
- Perform preventive maintenance inspections on diesel and heavy equipment systems.
- Perform diagnosis, service and repair of diesel engines.
- Perform diagnosis, service and repair of diesel and heavy equipment steering and suspension systems.
- Perform diagnosis, service and repair of diesel and heavy equipment brake systems.
- Perform diagnosis, service and repair of diesel equipment and electrical/electronic systems.
- Perform diagnosis, service and repair of gasoline engines.
- Perform diagnosis, service and repair of diesel and heavy equipment drive train systems.
- Perform diagnosis, service and repair of diesel and heavy equipment heating and air conditioning systems.

**Graduates Have Found Employment As**
- Diesel Mechanic
- Diesel Mechanic Apprentice
- Engine Maintenance Mechanic
- Farm Equipment Mechanic
- Service Engine Repairer
- Tune-up Mechanic
- Industrial and Construction Equipment Mechanic
Electric Power Distribution

- Truck Mechanic

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
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<tbody>
<tr>
<td>070-318 Drive Train Service</td>
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<td>412-310 Brake Service Fundamentals</td>
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<td>412-311 Truck Steering &amp; Suspension</td>
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<td>412-342 Electrical Systems Troubleshooting</td>
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<td>070-308 Engine Fundamentals</td>
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<td>412-305 Advanced Safety Procedures</td>
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<tr>
<td>412-306 Diesel Engine Service Repair I</td>
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<tr>
<td>412-307 Diesel Engine Service Repair II</td>
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<td>412-349 Equipment Welding</td>
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<td>801-311 Communication</td>
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<td>070-342 Hydraulics 2</td>
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<td>412-304 Diesel Fuel Systems</td>
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<tr>
<td>412-308 NAETF Certification Review</td>
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<tr>
<td>412-347 Inspection &amp; Maintenance Procedures</td>
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<tr>
<td>801-311 Communication</td>
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<tr>
<td>806-315 Applied Science</td>
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</table>

Vast Networks of wires and cables transmit the electric power produced in generating plants to individual customers, connect telephone central offices to customer’s telephones and switchboards, and extend cable TV to residential and commercial customers. These networks are constructed and maintained by line installers and cable splicers. To install new electric power or telephone lines, line installers or line erectors install poles and terminals, erect towers, and place wires and cables. Power equipment is typically used to dig holes and set poles. Line installers climb the poles or use truck-mounted buckets (aerial work platforms) and use hand tools to attach the cables. When working with electric power lines, installers bolt or clamp insulators onto the poles before attaching the cable. They may also install transformers, circuit breakers, switches, or other equipment. To bury underground cable, they use trenchers, plows, and other power equipment.

The Electric Power Distribution program prepares a student to advance to an electric line technician apprenticeship and related occupations. Students learn how to properly climb poles and install line hardware and equipment. Safety policies and procedures will be taught and strictly adhered to. Students will learn motor vehicle operation and maintenance, attain a working knowledge of ropes and rigging, proper application of rubber protective equipment and use of hot sticks. Students will also study and apply mapping and laying out lines for construction. Students will set poles at proper depth, install guys and anchors of the required strength to hold various lines.

AC and DC current will be taught along with Introduction to Fundamentals of Electricity.

Program Outcomes

- Perform installation, maintenance and repair operations in compliance with published safety standards.
- Acquire appropriate resources to perform necessary procedures and/or troubleshoot sequence.
- Operate tools and test equipment according to the process published in equipment manuals and/or demonstrated in class.
- Install poles and related equipment according to the process published in equipment manuals and/or demonstrated in class.
- Install underground lines and related equipment using industry accepted methods and practices.
- Recognize faulty or damaged equipment and repair or replace.
- Document investment and retirement work orders, record equipment nameplate information and fill out daily time sheets.

Graduates Have Found Employment As

- Electric Utility Lineman
- Cable Maintenance Technicians
- Equipment Operator
- Telephone Repairman
- Cable TV Installer
- Apprentice Line Technician
- Troubleshooter
- Line Inspectors
- Substation Operator

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• Cable Splicer

View the entire course listing (p. 79).

Semester 1

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<td>413-303</td>
<td>Industrial Electricity for Line Technicians</td>
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<td>413-304</td>
<td>Safety Procedures I-Line Technicians</td>
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<td>413-310</td>
<td>Electric Power Distribution 1A</td>
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<td>458-101</td>
<td>CDL for Non Truck Driving Occupations</td>
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<td>413-315</td>
<td>Electric Power Distribution 1B</td>
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Total Credits: 18

Semester 2

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<td>Safety Procedures II-Line Technicians</td>
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<td>413-307</td>
<td>EPD Mapping and Automation</td>
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<td>413-320</td>
<td>Electric Power Distribution 2A</td>
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<td>413-325</td>
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<td>801-311</td>
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<td>806-315</td>
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Total Credits: 16

For the complete course listing, please visit [this link](http://catalog.blackhawk.edu/academics/technical-diplomas/electric-power-distribution/ElectricPowerDistCareerPath.pdf).

**Emergency Medical Technician**

**Technical Diploma**

30-513-3

The EMT typically represents one of the first components of the emergency medical system. This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context. The national Registry of EMT’s test is required at the completion of the course for licensure in the State of Wisconsin. The course is also a prerequisite for EMT-Advanced and EMT-paramedic training. EMT-Basic is 5 credits at 10 hours per week totaling 180 hours plus 10+ hours in a hospital emergency room setting and ambulance ride-along training.

A caregiver background check **WILL** be required for clinical portion of the program. Students must meet the immunization requirements set by the CDC.

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<td>Emerg Med Tech/EMT-B</td>
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Total Credits: 5

For the complete course listing, please visit [this link](http://catalog.blackhawk.edu/academics/technical-diplomas/emt/Fire_EMTCareerPath.pdf).

**Farm Business & Production Management**

**Technical Diploma**

30-090-1

Farming is a technology driven business, with continually evolving management practices and an ongoing need for unbiased and focused educational resources. Farm Business and Production Management is designed to deliver on these needs. Enrollment is open to any individual actively engaged in or about to enter farming including: farm owners, operators, managers, and farm/agribusiness employees. Enrollees should plan to attend regularly scheduled group instruction, as well as allow time for individual on-site instruction.

This Program is offered at the Monroe Campus.

**Program Outcomes**

- Complete financial and production records necessary for business operation.
- Develop and implement a soil management plan.
- Apply appropriate cropping practices.
- Develop and apply an appropriate livestock nutrient plan.
- Implement an effective livestock management plan.
- Operate tools and equipment needed in farm business operation.
- Develop a farm business management plan.

**Graduates Have Found Employment As**

- Farm Owner
- Farm Manager
- Farm Cropping Specialist
- Farm Nutrient Manager
- Herdsman
- Milking Technician
- Farm Reproductive Specialist
- Farm Record Keeper
- Farm Business Manager
Heating, Ventilation, Air Conditioning and Refrigeration Technology

Semester 1

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>090-382</td>
<td>Soils Management for Farm Operators</td>
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<tr>
<td>090-383</td>
<td>Crop Management for Farm Operators</td>
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<td>090-384</td>
<td>Livestock Nutrition for Farm Operators</td>
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Semester 2

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<td>090-303</td>
<td>Agricultural Commodity Marketing for Farm Operators</td>
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<td>090-305</td>
<td>Nutrient Management Planning for Farm Operators</td>
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<td>090-385</td>
<td>Livestock Management for Farm Operators</td>
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<td>090-386</td>
<td>Records &amp; Business Management for Farm Operators</td>
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**Total Credits**: **19**

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the [Farm Business and Production Management Career Path](http://catalog.blackhawk.edu/academics/technical-diplomas/farm-business-production-management/AgribusinessSpecialistCareerPath.pdf) (PDF).

**Heating, Ventilation, Air Conditioning and Refrigeration Technology**

**Technical Diploma**

32-601-1

HVAC/R is one of the fastest growing industries in the world today. With the changing laws involving refrigerants and the influx of digital control systems, there is a constant need for qualified service technicians to work on HVAC/R equipment. A service technician will have to continually update his/her skills to keep up with the changing industry.

This program will provide proper training for people interested in a career in the heating, ventilation, air conditioning and refrigeration (HVAC/R) field. The technician will be prepared for employment in a variety of areas including servicing, installing, designing, estimating and selling HVAC systems for commercial and residential applications. The most modern equipment, test instruments, and computers are used for instruction.

After completing the HVAC/R two year technical diploma program, students may wish to pursue additional training in heating, ventilation, and air conditioning engineering. Credit for many of the associate degree courses in the program may be transferred to a four-year institution.

**Program Outcomes**

- Perform HVAC/R service and repair operations in compliance with published safety standards.
- Promote customer satisfaction.
- Operate tools/equipment according to process published in operator’s manual and/or demonstrated in class.
- Service and/or repair/replace defective components established in equipment specific repair manual and/or electronic service information systems.
- Diagnose root cause of problems by comparing test results to an established standard.
- Efficiently complete tasks within the expected time frame for an entry level technician.

**Graduates Have Found Employment As**

- HVAC/R Service Technician
- HVAC/R Service Installation Technician
- HVAC/R Sales Representatives
- HVAC/R Maintenance Technician

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
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<tbody>
<tr>
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<td>804-306</td>
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<th>Semester 2</th>
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<tbody>
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<td>601-155</td>
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</tr>
<tr>
<td>601-180</td>
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</tr>
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<td>804-308</td>
<td>2</td>
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<td><strong>Credits</strong></td>
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<table>
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</table>
Blackhawk Technical College

Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the HVAC/R Technology Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/heating-ventilation-air-conditioning-refrigeration-technology/ HVACCareerPath.pdf) (PDF).

Industrial Maintenance Mechanic

Technical Diploma
31-462-2

This career field offers plenty of opportunity to problem solve and work with your hands. You'll gain a high level of technical skills to prepare you for an entry-level position working with industrial machinery. Your training will include an introduction to electrical motors and safety, control devices and power systems. You'll also learn about blueprints, rigging and lifting, and computer-aided design. You'll get hands-on experience applying what you've learned in the machine shop.

Program Outcomes

• Demonstrate safe work procedures.
• Install industrial equipment and systems.
• Maintain industrial equipment and systems.
• Troubleshoot industrial equipment and systems.
• Repair industrial equipment and systems.
• Communicate technical information.

Graduates have found employment as:

• Industrial Maintenance Technician
• Industrial Machine Operator

Academic Plan

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<th>Credits</th>
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<td>Safety 1</td>
</tr>
<tr>
<td>620-165</td>
<td>Safety 2</td>
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<td>620-109</td>
<td>Relay Logic</td>
</tr>
<tr>
<td>620-146</td>
<td>Mechanics 1</td>
</tr>
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</table>

Laboratory Technician Assistant

Technical Diploma
31-506-4

This program prepares students to provide laboratory support to the food processing, medical, environmental, and agriculture industries. They will learn to conduct or assist in laboratory analysis of food, water, fuel, soil, bodily fluids and other elements – laboratory equipment, performing tests and experiments and documenting the results. Graduates will have a strong basis in scientific principles, quality methodology and documentation, and laboratory equipment and testing methodologies.

This Program is offered at the Monroe Campus.

Program Outcomes

• Apply modern laboratory methodologies including problem solving and troubleshooting.
• Perform and report results of laboratory tests.
• Practice laboratory safety and regulatory compliance.
• Monitor and evaluate quality control in the laboratory.
• Model professional behavior, ethics, and appearance appropriate to the laboratory setting.
• Demonstrate quantitative reasoning skills and apply critical thinking skills to a variety of disciplines.

Graduates Have Found Employment As
• Food Lab Quality Assurance Technician
• Food Lab Technician
• Medical Lab Assistant
• Quality Control Technician

View the entire course listing (p. 79).

### Manufacturing Information Technology Specialist

**Technical Diploma**

32-631-1

The Manufacturing Information Technology Specialist program provides extensive hands-on training with the computer hardware, operating systems, application software, mobile devices, and networks needed to keep the systems used in every aspect of advanced manufacturing operating and functioning at peak efficiency. In addition, students will learn how to provide excellent customer service to the employees that fill the various roles they will support. Graduates of this program will have the knowledge, attitudes and skills needed to guide and implement the systematic enhancement of various types of computer systems as these technologies continue to grow and evolve.

### Program Outcomes

• Apply effective customer satisfaction and field service techniques
• Evaluate and repair PC hardware components and peripherals
• Evaluate and administer PC software applications
• Compare LAN and WAN physical and logical fundamentals
• Evaluate, administer, and repair network hardware
• Apply PC system evaluation, installation, configuration, diagnosis and repair skills in the workplace
• Perform IT related tasks in multiple environments to include office and manufacturing
• Apply basic understanding of manufacturing communication protocols.
• Evaluate, administer, and repair wireless networking components and the devices that use them.
• Evaluate and install helpdesk software
• Apply proper helpdesk services
• Evaluate, administer and troubleshoot PC and Apple devices.
• Evaluate, administer and troubleshoot Windows, Apple, and Linux operating systems
• Compare different types of virtual machine systems.

### General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>801-197</td>
<td>Technical Reporting</td>
<td>3</td>
</tr>
<tr>
<td>804-107</td>
<td>College Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>804-189</td>
<td>Introductory Statistics</td>
<td>3</td>
</tr>
<tr>
<td>806-197</td>
<td>Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>806-199</td>
<td>General, Organic and Biological Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

Associate Degrees and Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming.

To view the connected program model, visit the Laboratory Technician Assistant Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/laboratory-technician-assistant/LabTechAsstCareerPath.pdf) (PDF).
Medical Assistant

Technical Diploma
31-509-1

The Medical Assistant is a link between health care providers and their patients, their professional associates, and the suppliers of equipment and medications. The Medical Assistant is the team member who assists the qualified provider in the office or other medical setting, performing administrative and/or clinical duties. Demand for the Medical assistant may also occur in business or industrial health centers, health insurance companies and emergency care centers. The Medical Assistant has a wide range of duties supportive to the provider’s practice. Business/ administrative duties include scheduling and receiving patients, obtaining patient information, maintaining medical records, maintaining supplies and equipment, and assuming responsibility for office care, insurance matters, office accounts, fees and collections. Medically related duties include assisting with examinations and treatments, taking health histories, performing certain diagnostic tests, carrying out laboratory procedures and sterilizing instruments and equipment.

Prior to enrolling in the Medical Assistant program (509) courses, students must complete an online criminal background check. There is an additional fee associated with the background check process.

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 healthcare setting
- Demonstrate safety and emergency practices in a healthcare setting

View the entire course listing (p. 79).

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-195</td>
<td>Written Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

Nursing Assistant

Technical Diploma
30-543-1

Associate Degrees and Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program within a career pathway offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Medical Assistant Career Path (http://catalog.blackhawk.edu/academics/technical-diplomas/medical-assistant/TechnicalDiplomaCareerPath.pdf) (PDF).
Nursing Assistants, sometimes called Nurse Aides, Patient Care Assistants (PCA) or Patient Care Technicians (PCT), are in high demand to assist in the care of patients in extended care facilities, home care situations, and, with some additional training, in hospitals. Working under the direct supervision of a licensed nurse, their responsibilities may vary, but personal care and emotional support of patients are always primary considerations.

This 120-hour course involves classroom lectures, campus lab experiences, and a clinical practicum, which involves working in healthcare agencies with patients and residents. Students must be at least 16 years old to attend clinical practicum. Students under the age of 18 must be selected as a Youth Apprentice through their High School. Those who successfully complete this course are eligible to take the National Nurse Aide Assessment Program (NNAAP) exam to become a part of the Wisconsin Nurse Aide Registry as a CNA/HHA. The cost for this testing is not included in course fees and tuition.

**Program Outcomes**
- Communicate and interact effectively with clients, family, and co-workers.
- Maintain and protect client rights.
- Report information and record observations.
- Demonstrate the ethical and legal responsibilities of the NA/HHA.
- Provide safe care to a diverse population, meeting personal, physical and psychosocial client needs.
- Assist with client rehabilitation and restorative care, promoting independence.
- Assist clients with long-term, disabling conditions including dementia, always focusing on the strengths of the client.
- Work cooperatively in a team environment.
- Eligible to take the WI NA Competency evaluation.

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>543-300</td>
<td>Nursing Assistant</td>
</tr>
<tr>
<td>543-302A</td>
<td>Nursing Assistant - Advanced</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
</tr>
</tbody>
</table>

Graduates May Find Employment As
- Pharmacy Technician - Hospitals
- Pharmacy Technician - Nursing Homes and Assisted Living Facilities
- Pharmacy Technician - Community
- Pharmacy Technician - Retail
- Pharmacy Aide
- Home IV Specialist
- Pharmacy Assistant

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Courses taken before semester 1</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>536-302</td>
<td>Introduction to Pharmacy Practice</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
</tr>
</tbody>
</table>

**Semester 1**
- Medical Terminology 3
- Digital Literacy for Healthcare 2
- Therapeutic Agents 4
- Pharmacy Calculations 2
- Pharmacy Practice 2

Blackhawk Technical College  Generated 04/2018 | 2017-2018
Program Outcomes

- Collect, transport, handle and process blood specimens for analysis
- Identify and select equipment, supplies and additives used in blood collection
- Recognize factors that affect specimen collection procedures and test results
- Follow infection control and safety procedures
- Demonstrate professional conduct and communication skills with patients, peers and other healthcare personnel

Prior to enrolling in Phlebotomy Technician program (513) courses, students must complete an online criminal background check. There is an additional fee associated with the background check process.

Program Outcomes

- Drive a commercial vehicle safely.
- Inspect the vehicle to ensure safety of operation.
- Demonstrate knowledge of the laws and regulations pertaining to the operation of a commercial vehicle in the United States.
- Complete appropriate paperwork correctly.
- Demonstrate ability to plan trips and routes including managing loads and weight distribution.
- Communicate effectively with peers, customers and supervisors.
- Obtain a commercial driver's license.
- Demonstrate knowledge of securing a commercial vehicle.
- Demonstrate proper safety and wellness behaviors expected by employers and the industry.


demonstrate knowledge of securing a commercial vehicle. 

Phlebotomy Technician

Technical Diploma
30-513-1

The phlebotomy technician program prepares the learner to function as a member of the healthcare delivery team, performing the role of a phlebotomist. The phlebotomist generally works in a clinical laboratory under the supervision of the appropriate professional. He/She is responsible for collection procedures in both outpatient clinical and hospital inpatient settings for the purpose of laboratory analysis, including emergency and routine collection procedures from veins, skin puncture areas and arteries on patients of all ages.

Prior to enrolling in Phlebotomy Technician program (513) courses, students must complete an online criminal background check. There is an additional fee associated with the background check process.

Program Outcomes

- Collect, transport, handle and process blood specimens for analysis
- Identify and select equipment, supplies and additives used in blood collection
- Recognize factors that affect specimen collection procedures and test results
- Follow infection control and safety procedures
- Demonstrate professional conduct and communication skills with patients, peers and other healthcare personnel

View the entire course listing (p. 79).
Welding

Graduates Have Found Employment As:

- Company Driver/Owner Operator
- Driver Manager
- Driver Mentor
- Local/Regional/Long Distance Driver
- LTL/Truckload Carriers
- Recruiting Specialist

Welding Technical Diploma 31-442-1

Welding is the most common way of permanently joining metal parts. Heat is applied to the pieces to be joined, melting and fusing them to form a permanent bond. Because of its strength, welding is used to construct and repair parts of ships, automobiles, spacecraft, and thousands of other manufactured products. Welding is used to join beams and steel reinforcing rods when constructing buildings, bridges, and other structures, and also in utilities such as nuclear power plants.

Graduates of the program will be experienced in welding structural steel, aluminum, stainless steel and other metals. They will develop the ability of blueprint reading, sketching, and layout for welding. Major job skills learned will include: Oxygen-Fuel Cutting (OFC), Plasma Arc Cutting (PAC), Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Core Arc Welding (FCAW), Metal Core Arc Welding (MCAW), and Gas Tungsten Arc Welding (GTAW).

Program Outcomes

- Demonstrate industry-recognized safety practices
- Interpret welding drawings
- Produce Gas Metal Arc Welds (GMAW)
- Produce shielded metal arc welds (SMAW)
- Produce flux core welds
- Produce gas tungsten arc welds (GTAW)
- Perform cutting operations

View the entire course listing (p. 79).

General Education Courses Within Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>801-311</td>
<td>Communication</td>
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<td>804-306</td>
<td>Shop Mathematics I</td>
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Embedded Technical Diplomas

In response to employer and student demand for additional educational opportunities, the Wisconsin Technical College System created embedded credentials within existing programs now referred to as Embedded Technical Diplomas. Embedded Technical Diplomas can be earned while taking courses within an already approved program. This opportunity provides students a set of industry recognized skills and abilities that will prepare them for entry level employment.

Accounting Assistant

Embedded Technical Diploma 31-101-1

The Accounting Assistant program will provide students with the skills necessary to perform entry-level bookkeeping and accounting functions for local employers. Accounting Assistants enter data into the accounting information system in order to prepare and process payroll, accounts payable, accounts receivable, and cash. The program serves as a solid
foundation for further study in the accounting field and can be easily transferred into the two-year associate degree accounting program. The courses are designed for online, blended and traditional formats.

<table>
<thead>
<tr>
<th>Semester 1</th>
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<td>101-111</td>
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<td>804-123</td>
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<td>801-195</td>
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<td>103-107</td>
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<tr>
<td>103-126</td>
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</table>

**Residential HVAC**

**Embedded Technical Diploma**

31-601-1

This embedded diploma is designed to prepare completers for entry-level employment in the area of residential heating, ventilation, and air conditioning (HVAC) employment. The diploma covers print reading and code, air conditioning fundamentals, refrigeration fundamentals, electrical fundamentals, computerized HVAC and refrigeration design, heating systems, motors and motor controls, air conditioning and refrigeration piping, charging methods, customer service essentials, trade mathematics, and communications.

Pathway Certificates and Embedded Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the HVAC/R Technician Career Path (http://catalog.blackhawk.edu/academics/embedded-tech-diplomas/residential-hvac/HVACCareerPath.pdf) (PDF).

<table>
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<td>601-126</td>
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<td>601-112</td>
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</tbody>
</table>

**Pathway Certificates**

In response to employer and student demand for additional educational opportunities, the Wisconsin Technical College System has created Pathway Certificates within existing programs. Pathway Certificates can be earned while taking courses within an already approved program. This opportunity provides students a set of industry recognized skills and abilities that will prepare them for entry level employment.

**Automotive: Basic Brake & Alignment Tech**

**Pathways Certificate**

61-404-1

This pathway certificate is designed to prepare completers for automotive entry-level employment in the areas of basic brakes and alignments. The certificate covers automotive safety, service fundamentals, brake service, auto machine shop, steering and suspension service, and automotive math fundamentals.

Pathway Certificates and Embedded Technical Diplomas are part of a larger model of BTC’s Career Pathways which link related academic programs in sequence. Each program offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the Automotive Technician Career Pathway (http://catalog.blackhawk.edu/academics/pathway_certs/basic_brake/AutomotiveTechnicianCareerPath.pdf) (PDF).

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<td>404-348</td>
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<td>804-304</td>
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<td>601-127</td>
<td>2</td>
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<tr>
<td>804-306</td>
<td>2</td>
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</tbody>
</table>

**Manual Lathe Machinist**

**Pathway Certificate**

61-444-1

This pathway certificate is designed to prepare completers for entry-level employment in the area of manual lathe machining. The certificate covers machine safety, basic and advanced machining math, shop
computing, metrology, semi-precision machining, lathe turning fundamentals, and lathe turning applications.

Pathway Certificates and Embedded Technical Diplomas are part of a larger model of BTC's Career Pathways which link related academic programs in sequence. Each program offers direct job preparation and a path to the next level of academic programming. To view the connected program model, visit the CNC Technician Career Path (http://catalog.blackhawk.edu/academics/pathway certs/lathe_machinist/CNCTechnicianCareerPath.pdf) (PDF).

<table>
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<tbody>
<tr>
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</tr>
<tr>
<td>444-300 Shop Computing</td>
<td>2</td>
</tr>
<tr>
<td>444-301 Metrology</td>
<td>2</td>
</tr>
<tr>
<td>444-302 Semi-Precision Machining</td>
<td>2</td>
</tr>
<tr>
<td>444-303 Turning Fundamentals</td>
<td>2</td>
</tr>
<tr>
<td>804-306 Shop Mathematics I</td>
<td>2</td>
</tr>
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<td><strong>Credits</strong></td>
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<table>
<thead>
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<th>Semester 2</th>
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<td>2</td>
</tr>
<tr>
<td>804-308 Shop Mathematics II</td>
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</tr>
<tr>
<td><strong>Total Credits</strong></td>
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</table>

**Certificates**

Certificate programs include a grouping of only those courses which are essential to prepare a student for successful employment in specific occupations. Certificates may be awarded for completion of an educational offering not described under diploma or associate degree program criteria by the department that has responsibility for the program.

**Basic Corrections Academy**

The Basic Corrections Academy is a program that provides the curriculum required for correctional officer certification with the Wisconsin Department of Justice, Law Enforcement Standards Board. The program is a 160 hour course that focuses on the philosophical and tactical principles of working as a correctional officer in Wisconsin. The course includes a skills-assessment examination prior to completion to verify student competence. Upon the completion of the program, a student will be eligible for certification with the Wisconsin Department of Justice, Law Enforcement Training and Standards Board.

**Business Management**

Certificate
99-911-0

Completion of the Business Management Certificate prepares you to apply the critical skills needed to plan, organize, staff, and direct day-to-day business management functions. This certificate is broad based and offers a general background in business management. You may apply these courses to an Associate Degree.

**Certificate Outcomes**

- Apply computer & technology skills with Microsoft Office Suites software.
- Apply business mathematics and accounting principles.
- Develop business management skills.
- Develop marketing and selling fundamental skills.
- Demonstrate other critical success skills such as oral and written communication.

View the entire course listing (p. 79).
Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-117</td>
<td>Accounting Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>102-109</td>
<td>Business Careers Planning and Business Communication</td>
<td>3</td>
</tr>
<tr>
<td>102-115</td>
<td>Management Principles</td>
<td>3</td>
</tr>
<tr>
<td>102-160</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>104-104 or 104-155</td>
<td>Selling Principles or Introduction to Project Management</td>
<td>3</td>
</tr>
<tr>
<td>116-193</td>
<td>Human Resource Management</td>
<td>3</td>
</tr>
</tbody>
</table>

| Total Credits                               |                                           | 18      |

**Computed Tomography**

*Advanced Technical Certificate*

98-526-1

Completion of the Computed Tomography Certificate provides the radiographer with the knowledge and clinical skills to specialize in the advanced imaging modality of computed tomography. This certificate consists of academic and clinical courses designed to meet the eligibility requirements for the certification examination in Computed Tomography administered by the American Registry of Radiologic Technologists (ARRT).

**Certificate Outcomes**

- Perform high-quality computed tomography examinations.
- Critically evaluate image quality.
- Practice radiation safety principles.
- Provide quality patient care and evaluation.
- Model professional and ethical behavior consistent with the A.A.R.T. Code of Ethics.
- Apply critical thinking and problem solving skills in the practice of computed tomography.

**Semester 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>526-150</td>
<td>Computed Tomography Sectional Anatomy and Pathology</td>
<td>3</td>
</tr>
<tr>
<td>526-151</td>
<td>Computed Tomography Procedures</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

**Semester 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>526-152</td>
<td>CT Physics and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>526-153</td>
<td>Computed Tomography Clinical</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Credits</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

| Total Credits                 |                                           | **11**  |

**Human Resource Generalist**

*Certificate* 99-920-3

Completion of the Human Resource Generalist Certificate will prepare you for a supporting role in Human Resources. Through your studies, you will obtain knowledge and practical skills for career enhancement and job advancement in the field of Human Resources. You may apply these courses to the Human Resources Associate Degree.

**Certificate Outcomes**

- Recruit and interview qualified candidates for available positions.
- Organize health and safety programs.
- Coordinate employee training and education.
- Interpret employment law in order to assist managers and supervisors.
- Assist HR managers in larger organizations.

**Computer Hardware Support Certificate**

*Certificate* 99-931-3

This certificate program provides the extensive hands-on training with hardware, software, and operating systems needed to keep PC-based systems operational and functioning at peak efficiency. These courses provide the basic knowledge, attitudes, skills, and habits needed to guide and implement the systematic enhancement of PC based systems as the technology continues to evolve. Students will learn to: assemble/disassemble a complete PC; diagnose and repair hardware/software problems; install and configure PC hardware; resolve memory conflicts; install, configure, optimize and troubleshoot hardware, software and operating systems.

Participants must complete BTC’s program admission process for certain certificates.

Prerequisite: Must be admitted in the Computer Service Technician Program.

View the entire course listing (p. 79).
Preschool Certificate

Certificate
99-941-2

Individuals who want to be preschool teachers, assistant teachers, program directors and child care administrators will benefit from completion of the Preschool Educator Certificate. Each age group requires a little something special and preschoolers are no exception. The courses in this certificate will enhance your skills in health and safety needs of children, observation and assessment, guiding children’s behaviors, and developmentally appropriate curriculum development. You will be provided with the opportunity to practice your skills while being placed in a preschool classroom.

The Preschool Educator Certificate was developed with 7 courses from the Wisconsin Technical College System Statewide Curriculum for the Associate Degree in Early Childhood Education and the 6 courses from the Wisconsin Registry Preschool Credential. Upon completion of the certificate you can commission the Wisconsin Registry to earn your official Preschool Credential.

Outcomes:
• Apply child development theory to practice.
• Assess child growth and development.
• Use best practices in teaching and learning.
• Demonstrate professionalism.
• Integrate health, safety, and nutrition practices.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>307-174</td>
<td>ECE: Introductory Practicum</td>
<td>3</td>
</tr>
<tr>
<td>307-179</td>
<td>ECE: Child Development</td>
<td>3</td>
</tr>
<tr>
<td>307-167</td>
<td>ECE: Health, Safety, and Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>307-188</td>
<td>ECE: Guiding Children’s Behavior</td>
<td>3</td>
</tr>
<tr>
<td>307-108</td>
<td>ECE: Early Language &amp; Literacy</td>
<td>3</td>
</tr>
<tr>
<td>307-110</td>
<td>ECE: Social Studies, Art &amp; Music</td>
<td>3</td>
</tr>
<tr>
<td>307-175</td>
<td>ECE: Preschool Practicum</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 21

Project Management

Certificate
99-913-3

The Project Management Certificate focuses on the essential skills and knowledge needed to promote effective project leadership and management from inception to completion. This certificate is designed for the individual seeking career advancement or professional development. Three of the four courses can be applied to an Associate Degree in Marketing.

Certificate Outcomes
• Apply project management processes
• Apply project leadership skills
• Develop project plans and status reports
• Apply scheduling/cost management skills
• Develop proficiency in Microsoft Project software
• Lead a real life project in a lab setting

View the entire course listing (p. 79).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-155</td>
<td>Introduction to Project Management</td>
<td>3</td>
</tr>
<tr>
<td>102-156</td>
<td>Project Leadership and Communications</td>
<td>3</td>
</tr>
<tr>
<td>102-157</td>
<td>Managing Projects</td>
<td>2</td>
</tr>
<tr>
<td>102-158</td>
<td>Project Management Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 11

Secure Juvenile Detention Academy

The Secure Juvenile Detention Academy is a program that provides the curriculum required for juvenile detention worker certification with the Wisconsin Department of Justice, Law Enforcement Training and Standards Bureau. The program is a 160 hours and provides instruction on how to be a detention officer. The program requires a skills-assessment prior to completion to verify student competence. Upon the completion of the program, a student will be eligible for certification with the Wisconsin Department of Justice as a secure juvenile detention worker.

Supply Chain Management Certificate

Certificate
99-182-1

The Supply Chain Management Certificate Program focuses on developing essential skills and knowledge in the areas of purchasing, inventory management, and logistics type careers and professional effectiveness in project management and negotiations. This certificate is designed for the individual seeking exposure, advancement or professional development in the understanding of core supply chain functions. All courses will apply towards the Associate of Applied Science degree in Supply Chain Management.

Outcomes:
Upon successful completion of this certificate, students will be able to:
• Define supply chain concepts and understand the flow of materials, information and money.
• Demonstrate their ability to plan for, purchase and manage inventories and identify its impact on organizations.
• Develop negotiation abilities and their capacity to understand and predict behaviors in competitive situations.
• Evaluate supply chain costs and the profitability that stems from effective management practices.
• Apply continuous improvement strategies to all aspects of supply chain management.
Blackhawk Technical College

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>182-103</td>
<td>Introduction to Supply Chain Management</td>
<td>3</td>
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<tr>
<td>182-104</td>
<td>Inventory Management</td>
<td>3</td>
</tr>
<tr>
<td>182-106</td>
<td>Purchasing</td>
<td>3</td>
</tr>
<tr>
<td>182-107</td>
<td>Distribution &amp; Logistics</td>
<td>3</td>
</tr>
<tr>
<td>102-155</td>
<td>Introduction to Project Management</td>
<td>3</td>
</tr>
<tr>
<td>182-105</td>
<td>Negotiations</td>
<td>1</td>
</tr>
<tr>
<td>102-134</td>
<td>Lean Six Sigma</td>
<td>3</td>
</tr>
</tbody>
</table>

Credits: 19
Total Credits: 19

General Education

The General Education and Academic Support Division lays the foundation for broad-based student learning. The division strives to meet students at whatever point of readiness they are when admitted to BTC. In some cases, students are prepared and ready to enroll immediately in general education classes. In other instances, students may need additional instruction to reinforce skills necessary to achieve their academic goals.

General Education courses help students develop core knowledge, skills, and attitudes essential for personal and professional success. General Education courses (https://www.blackhawk.edu/Programs-Classes/Take-a-Class/Class-Search/credit) in communication, social science, math, and natural science are based on an applied, integrated curriculum and use classroom activities that reflect real world work situations relevant to program areas while also preparing students to be lifelong learners.

Basic Skills Education

Basic Skills-Academic Support

Academic support (https://www.blackhawk.edu/Student-Resources/Academic-Support-Tutoring) provides basic skills education, GED/HSED instruction, classes for English Language Learners (ELL), and support services to help students succeed in postsecondary education. Staff work closely with other divisions of BTC as well as with local schools and industry to develop programs to meet educational needs in the community.

There are an array of services in response to students' unique circumstances, abilities and goals. Support is provided via classroom instruction, workshops, computer-based tutorials, and individualized assistance through learning labs. Our instructional staff are sensitive to the concerns of adult students who desire to complete or continue their education.

A pre-assessment of academic needs (TABE) is required. Minimal material fees may apply. Feel free to contact one of the various BTC sites for more information:

Central Campus
6004 S. Cty Rd G
Janesville, WI 53546-9548

(608) 757-7676

Beloit Center
50 Eclipse Center
Beloit, WI 53511-3550
(608) 757-7741

Green County/Monroe Campus
210 4th Ave.
Monroe, WI 53566-1033
(608) 328-8204

Rock County Job Center
1900 Center Ave.
Janesville, WI 53546-2801
(608) 741-3566

High School Contracting

This is a cooperative effort to provide educational alternatives to at-risk students and to comply with the compulsory school attendance laws. It offers high school credit and GED/HSED courses for students referred by and enrolled in district high schools. This program aids public schools by providing in-school youth with a chance to make up or add on credits.

Learning Labs

There are two learning labs at central campus: the Writing and Communication Lab and the Math and Science Lab. These two labs allow students to study at their own pace to prepare to take GED/HSED tests, enter post-secondary programs, or seek supplemental instruction to assist them with coursework.

Some services, such as tutorial assistance are available on a walk-in basis. Other services, such as individualized instruction, require some type of advance arrangement. Students are encouraged to stop in during lab hours to explore the opportunities the Learning Labs provide.

The Learning Labs are located in the Student Success Center at central campus. The Writing and Communication Lab is in room 2213. The Math and Science Lab is located in room 2216. If students have questions, they should call (608) 757-7676.

RECAP Project

The Rock County Education and Criminal Addictions Program (RECAP) (http://www.co.rock.wi.us/sheriff-community-corrections) is a cooperative program among Blackhawk Technical College, Rock County Sheriff's Office, and CESA #2. The program provides Adult Basic Education (ABE) and GED/HSED instruction, Cognitive Interventions Program (CGIP), drug and alcohol counseling, job readiness, and work experience.

GED-General Education Development Certificate

Preparation

GED preparation (https://www.blackhawk.edu/Programs-Classes/GED-HSED/GED-HSED-Preparation) (more formally known as General Education Development) is open to all adults. GED classes are offered at
BTC’s Beloit Center, central campus, and Monroe campus as well as the Rock Country Job Center and other community sites.

There are structured classes, as well as individualized study options available to students to best meet their needs. GED classes (p. 207) are provided at no cost to students, although some sites may charge minimal material fees. For additional information, contact (608) 757-7741.

Testing Service
Blackhawk Technical College is an authorized testing site for the General Education Development (GED) and credentials through a program of the American Council on Education. The GED tests measure high school-level knowledge and skills. The tests are designed to measure the academic outcomes students normally acquire by completing a typical high school program of study. Additional information can be obtained by contacting (608) 757-7666 or (800) 498-1282, ext. 7666.

For students whose high school education was insufficient to prepare them for General Education or program classes from the start, BSE classes can provide the review and basic skill development that may make the difference between success and failure in post-secondary education.

All programs in this area tend to have very limited costs involved making them a very affordable way to enhance students’ skills. For more information, contact (608) 757-7741.

HSED

HSED—High School Equivalency Diploma
HSED programming (https://www.blackhawk.edu/Programs-Classes/GED-HSED) (more formally known as High School Equivalency Diploma) is open to all adult students over 18 seeking a high school credential. HSED classes are offered at BTC’s Beloit Center, central campus, and Monroe campus as well as at the Rock Country Job Center and other community sites.

A High School Equivalency Diploma fulfills the high school diploma requirement for most jobs. An HSED is issued by the state through BTC and is acquired by successfully completing four exams, plus three external components (Health, Civics, Employability). The HSED option is an attractive alternative for those non-high school graduates who have little or no high school credit accumulated. The minimum age to begin work on an HSED is 18.

Classes for HSED preparation are provided at no cost to students although some sites may charge minimal materials fees. For more information, contact (608) 757-7741.

ELL

ELL—English Language Learning
English Language Learner (https://www.blackhawk.edu/Student-Resources/Academic-Support-Tutoring/English-Language-Learners) (ELL) classes provide basic skills education instruction in speaking, listening, reading and writing for adults whose native language is not English. The emphasis is on learning the English language to be able to successfully interact with others whether for employment, community involvement, or for furthering education.

For additional information, contact (608) 757-7741.

Apprentice Programs
The apprenticeship process is a formal arrangement involving employers, apprenticeship committees, state government, technical colleges, and individuals who want to learn a skilled craft through on-the-job training and applied classroom instruction in their chosen trade. Paid Related Instruction is a key part of each apprenticeship and is required by the Wisconsin apprenticeship law. The length of training may vary from two to five years, depending on the trade. Apprentices who successfully complete the prescribed number of hours of training become certified skilled workers.

Blackhawk Technical College currently offers the following:

- Electrical Apprenticeship
- Mechatronics Apprenticeship
- Maintenance Technician Apprenticeship
- Industrial Electrician Apprenticeship
- Welding Fabricator Apprenticeship

To become an apprentice, students first need to get hired by an employer in one of the fields listed above, followed by an application process and state approval by the employer. Many individuals, including women and minorities, have discovered that apprenticeship training offers an opportunity for a good-paying career.

Further information and a list of Wisconsin apprenticeships can be obtained online at http://www.dwd.wisconsin.gov/apprenticeship/individuals.htm or by calling (608) 266-3332. For information on BTC’s apprenticeship programs or the apprenticeship process (https://www.blackhawk.edu/Professional-Training/Apprenticeships), please contact (608) 757-7628.

Professional and Continuing Education
We offer many courses for a variety of occupations through continuing education. Explore the variety of non-credit vocational courses designed for upgrading skills or personal development.

Upgrade Your Skills
Enhance your skills or jumpstart a new career by acquiring the skills and knowledge needed to excel on the job. Continuing education classes offer an affordable option for exploring new areas of interest, obtaining a specific certification or fulfilling a continuing education requirement. Some of the areas these classes serve are in management, leadership development or computer literacy. We provide this training using industry veterans who know the field.

Career Preparation
You also may want to explore or prepare for a new career. We have classes in Microsoft® Office applications, electricity, safety standards and many others. Short-term trainings last from one to 10 weeks and are valuable in preparing for and deciding on a new career.
Anytime Classes

Through our partnership with ed2go (http://www.ed2go.com/blackhawktech), you may take online, non-credit courses that will provide both skill and enjoyment. Our partnership with ed2go gives you a choice of classes, including computer applications, law, personal development, technology, teaching and publishing. See for yourself at http://ed2go.com/blackhawktech.

Community Education

Blackhawk Technical College has classes just for you. No grades, no pressure -- just fun and purpose in learning. We offer non-credit classes at the Central Campus, Advanced Manufacturing Training Center and Monroe Campus. Pick a class, a location and get started right away. There are many classes for beginners, so if you have never used a computer or spoken a word of Spanish, we have a seat for you.

More Anytime Classes

Save gas and time by looking into our online non-credit courses that will provide both skill and enjoyment. Our partnership with ed2go gives you a choice of classes, including computer applications, law, personal development, technology, teaching and publishing. See for yourself at http://www.ed2go.com/blackhawktech/.

Teach A Class

Interested in teaching a class? Perhaps you have an idea for a new course. If so, please contact our continuing education coordinator at (608) 757-7728 and learn what opportunities might be available. Information about BTC's workforce training and economic development services are available through the Workforce and Community Development Division at www.blackhawk.edu. (https://www.blackhawk.edu/Professional-Training/Workforce-Training)

CPR and First Aid

Healthcare Provider CPR

For any medical staff personnel, medical type students, EMT's, nursing students, and nursing personnel. The course consists of airway obstruction and CPR, two person CPR, using adjunct equipment for infants, children, and adults based on the newest American Heart Association techniques. (OSHA approved)

Healthcare Provider CPR Refresher

Bi-annual update for those already certified in CPR.

Heartsaver AED CPR

CPR is an emergency procedure designed to restore life after sudden unexpected death has occurred. This basic life support training includes recognition of the early warning signs of heart attack and proper response to these symptoms. When certified you will be able to recognize respiratory arrest and perform cardiopulmonary resuscitation. CPR involves a combination of ventilation techniques and chest compressions. Proficiency in CPR requires mannequin practice supervised by certified instructors. A bi-annual refresher class is necessary to maintain CPR skills.

Heartsaver AED First Aid

Basic First Aid for the general public, business and industrial personnel. The course consists of the principles and techniques for aiding the victim until more qualified help arrives. Course also includes CPR and AED training.

Search First Aid & CPR classes. (https://www.blackhawk.edu/Programs-Classes/Take-a-Class/Class-Search/non-credit)

Workforce and Community Development

Workforce Training, Economic Development, and Outreach to Our Communities

Each year thousands of Green and Rock County incumbent workers, job seekers and adult learners look to Blackhawk Technical College to fill their training and educational needs. (https://www.blackhawk.edu/Professional-Training/Workforce-Training) Whether you come as an individual, business or community organization you can participate in learning programs in Beloit, Janesville, Milton or Monroe, at one of BTC's learning centers, or at your place of business.

Workforce and Community Development (WCD) provides business and professional development seminars and workshops, (https://www.blackhawk.edu/Professional-Training/Workforce-Training/Seminars-Workshops-Boot-Camps) customized training services (https://www.blackhawk.edu/Professional-Training/Workforce-Training/Custimized-Training), (http://www.blackhawk.edu/ExplorePrograms/BusinessandCommunityDevelopment/Seminars.aspx) continuing education opportunities (https://www.blackhawk.edu/Programs-Classes/Take-a-Class/Class-Search/non-credit) and an array of short-term courses in a variety of settings. This area also schedules learning opportunities for individuals seeking enrichment-or furthering their knowledge and skills for work or fun. WCD staff work directly with business, government, education, community organizations, public services, and others to provide customized training and consulting services that can include onsite or on-campus training.

Customized training and business consulting is the core of the services provided by WCD. Our professional staff assesses your business and training needs and then designs and delivers services to help your business or organization meet its goals. Business seminars, organizational analyses, employee skills assessments, business planning assistance and facilitation services are also available.

A dedicated manager will match the right trainer or consultant to your organization's needs and assist in creating solutions to address your specific issues by customizing curriculum and activities. Our manager can also guide you to funding assistance resources that may be available to help offset your training investment.

Our clients include individuals, businesses and organizations from the following sectors:

- Manufacturing
- Transportation and Distribution
- Construction and Skilled Trades
- Community Based Residential Facilities
- Community Organizations
Emerging technologies. Technical skill development. Quality, safety and sustainable practices. Blackhawk has designed hundreds of engaging training programs for individuals and professional teams that cover a wide array of topics. We also teach students the marketable “soft skills” today’s employers are looking for. Some of our most popular programs include:

- Leadership & Team Principles
- Safety Expertise
- Organizational Development
- Business Communications
- Microsoft Office
- Quality Production

Training and Consulting Services
Interested in learning more about BTC’s customizable training workshops? Contact us at (608) 757-7701 or businessdevelopment@blackhawk.edu.
COURSE DESCRIPTIONS

Each link within this section offers a list of classes available within a specific field. Information includes a general summary of the subject matter; which semester a class is available; the days and times of classes; and if pre-requisites or co-requisites are required.

All Descriptions

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Accounting (101)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

101-102 Office Accounting
Credits: 3

Office Accounting is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing worksheets, adjusting and posting closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

Aid Code: 10 - Associate Degree.
Complete Course Listing

101-105 Accounting Spreadsheets
Credits: 3

This course provides hands-on experience in reporting financial data utilizing a popular spreadsheeting program. The course focuses on the application of spreadsheet software in the Accounting profession. A working knowledge of Microsoft Windows and a basic knowledge of the accounting cycle are recommended.

Aid Code: 10 - Associate Degree.
Complete Course Listing

101-109 Corporate Accounting II
Credits: 3

This is a continuation of Corporate Accounting I. This is a capstone course for fourth semester accounting students that offers a simulated work experience for a career in the accounting profession. Topics include an advanced study and preparation of corporate financial statements, corporate financial statement analysis, budgeting/forecasting, and an in-depth study of a Fortune 500 company.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-125) and (101-113)
Complete Course Listing

101-111 Accounting I
Credits: 4

This is an introductory course to the basic structure of accounting. Fundamental accounting concepts and principles are presented with their application to the analysis and recording of business transactions through the use of problems and a practice set. The course focus is on journalizing, posting, preparing financial statements, accounting for merchandisers, purchases, and banking transactions. A working knowledge of Microsoft Office is highly recommended.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Writing Skills, 070 or ACT English, 18 or ASSET Writing Skills, 44 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104) and (COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or ASSET Numerical Skills, 40 or Test Waived-College Degree or 834-109 or 834-109 or (AccuPlacer Arithmetic, 089 or AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))
Complete Course Listing

101-112 Accounting II
Credits: 4

Accounting II is a continuation of Accounting I. Account groups are studied for their composition, valuation, recognition, and appropriate accounting treatment. The accounting groups focused on are: receivables, inventory, fixed assets, and current liabilities. In addition, managerial/cost accounting concepts and principles, and cost-volume-profit analysis are introduced.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-111) and (804-123) and (103-128 or 103-106)
Complete Course Listing

101-113 Corporate Accounting I
Credits: 4

This course focuses on accounting for corporations. Topics include International Financial Reporting Standards, Sarbanes-Oxley, corporate financial statements, corporate investments, Statement of Cash Flows, debt and equity financing, capital budgeting, and a unit on partnerships. A comprehensive practice set allows students a practical application of accounting theories.

Aid Code: 10 - Associate Degree.
Pre-requisites: 101-112
Complete Course Listing

101-117 Accounting Fundamentals
Credits: 3

This course is an introduction to accounting from a non-accountant’s perspective. Learning objectives emphasize general accounting terminology and concepts, the effects of transactions on financial statements, the relationships between financial statements, and the interpretation of financial statement information using an analytical approach.

Aid Code: 10 - Associate Degree.
Pre-requisites: (804-123 or 804-118)
Complete Course Listing
Accounting (101)

101-123 Income Tax Accounting
Credits: 4

Federal and state income tax laws are covered as related to the individual taxpayer. Emphasis is on learning to research and interpret tax laws and regulations. The student will study the law, then apply the law to illustrative cases and prepare appropriate tax forms.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-112)
Complete Course Listing

101-124 Applied Income Tax
Credits: 2

This course provides hands-on experience in preparing individual federal and state income tax returns for people in the community through the VITA program. Customer relations are an important component of this course.

Aid Code: 10 - Associate Degree.
Pre-requisites: 101-123
Complete Course Listing

101-125 Cost Accounting
Credits: 4

This course focuses on the study of cost accounting, blending theory with practical application of problems and case studies. Cost systems presented include the job order cost system and the process cost system. Emphasis is on cost accumulation using actual and standard costing, as well as managerial cost decision making.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-112) and (101-135)
Complete Course Listing

101-128 Supervised Occupational Experience - Accounting
Credits: 3

In this course, second-year students interview for accounting work-based learning placements within business and industry. Once selected, students will apply their knowledge and skills in an accounting work environment under the supervision of an employer.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-112) and (101-130) and (101-135) and (101-136)
Complete Course Listing

101-130 Accounting Information Systems
Credits: 3

This course helps students develop their professional judgment as accountants while studying the flow of information in an organization. Using scenarios, each transaction cycle is analyzed and studied for internal control weaknesses. Based on the analysis, the students are required to identify ways to strengthen any weakness identified. Students will learn flowcharting techniques and principles of system design.

Aid Code: 10 - Associate Degree.
Pre-requisites: 101-111
Complete Course Listing

101-131 Accounting Databases
Credits: 2

This course covers the development of a REA model of a business. The students learn Microsoft Access and then are divided into teams to develop an accounting information system using Access. The system is documented stressing the use of good internal controls. Emphasis is on teamwork and good design techniques. A working knowledge of Microsoft Windows is expected.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-130)
Co-requisites: (101-109)
Complete Course Listing

101-134 Payroll Accounting
Credits: 2

In this course, second-year students interview for accounting work-based learning placements within business and industry. Once selected, students will apply their knowledge and skills in an accounting work environment under the supervision of an employer.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-112) and (101-130) and (101-135) and (101-136)
Complete Course Listing

101-135 Payroll Accounting
Credits: 2

This course emphasizes methods of computing wages and salaries, methods for keeping payroll records and the preparation of government reports. Included is a project requiring the student to record all the payroll information for a business during a three-month operating period.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-111) and (804-123)
Complete Course Listing

101-136 Computerized Accounting
Credits: 2

This course is designed to build the bridge between a manual accounting system and a computerized system, explaining the "behind-the-scenes" actions of the computerized system. A popular computerized accounting software package is used to record business transactions within a computerized system and produce financial statements and various other reports for management. This course is designed to provide the user with an intermediate level of proficiency in a computerized accounting software package.

Aid Code: 10 - Associate Degree.
Pre-requisites: 101-111
Complete Course Listing

101-137 Career Development in Accounting
Credits: 1

This course prepares students to use strategies for seeking, obtaining, and retaining employment in accounting and finance related positions. Students develop a job search plan, prepare a resume and cover letter, complete application forms, and prepare for job interviews. Students build a professional profile and finalize a personal portfolio. This course is intended for students who are in their final semester of the two year degree.

Aid Code: 10 - Associate Degree.
Complete Course Listing
006-101 Contemporary Issues in Sustainability
Credits: 1
This course examines the role of agriculture and consumers in today's society. Emphasis will be placed on economically profitable, environmentally sound and socially responsible agricultural practices for farm and agribusiness operations.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-102 Emerging Agriculture Technologies
Credits: 2
This course provides classroom and field experience to expose students to the latest developments in agricultural technology for agribusinesses applications. Emphasis will be geared toward providing students experience in technical problem-solving for agri-businesses and farm operations.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-103 Agricultural Commodity Marketing
Credits: 1
Learners will develop an understanding of the principles of marketing relative to basic economic theory. We will examine the marketing process from production through delivery to the ultimate consumer including product differentiation, direct marketing, and competitive advantage.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-104 Special Topics in Agriculture
Credits: 1
This course is an opportunity for participants to learn from professionals in the fields of agronomy, finance and livestock nutrition and management as well as from full-time crop, livestock and dairy producers. Learners will connect to professionals in the field of agricultural production and agribusiness. Students will be able to do this through linking with the Farm Business and Production Management Program from November through March.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-105 Nutrient Management
Credits: 3
Students focus on profitable crop production methods using commercial products, nutrient credits, and rotational practices. Students learn how to interpret soil test reports, balance soil pH, meet nutrient requirements, and make product recommendations based upon economic, environmental, and legal criteria. Students will study field mapping based on global positioning systems and variable rate technology.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-106 Agribusiness Occupational Experience
Credits: 1
The course is an opportunity for students to gain hands-on experience with agribusinesses within their area of interest or as career exploration. Participants will build a network of potential employers upon completion of the Agribusiness Specialist program.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-107 Pest Management: Applicator Training
Credits: 3
Students will learn principles and methods used in the control of pests found in the production of agricultural commodities. Preparation for Wisconsin Commercial Pesticide Applicator licensing will include: restricted use regulations, applicator safety, environmental safety, equipment calibration, and product label interpretation. Course topics also include: pesticide mode of action, interpretation of aerial photos, and integrated pest management (IPM).
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-108 Commercial Drivers Training
Credits: 1
A course designed to prepare students to take the Department of Transportation (DOT) General CDL examination as well as examinations that cover DOT endorsements for air brakes, hazardous materials, doubles and triples. A CDL is a very valuable certification for all types of agribusiness employment. Completion of these exams could lead to the student receiving their driving permit, which would allow them to drive a commercial truck with a licensed CDL driver in the passenger seat.
Aid Code: 10 - Associate Degree.
Complete Course Listing

006-116 Introduction to Soils
Credits: 3
This course provides fundamental knowledge of soils and growth media. Course topics include soil formation and development, soil components, soil profile, soil classification, and soil conservation. Participants will experience soils concepts through the completion of hands-on activities.
Aid Code: 10 - Associate Degree.
Complete Course Listing
006-160 Introduction to Plant Science  
**Credits:** 3  
This course provides fundamental knowledge of plant components and their functions. Topics include pollinating and propagating plants, germinating seeds, plant nutrients, and factors affecting photosynthesis, respiration, and transpiration. Participants will experience plant components and their functions through the completion of hands-on activities.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-162 Farm Records and Business Management  
**Credits:** 3  
This course emphasizes the practical use of a record management system in managing a farm or agribusiness. Students will create business goals and analyze the use of credit as well as simulate business arrangements, estate planning, and preparing income taxes. Students will create balance sheets, cash flows and income statements as they create an overall financial analysis of the farm or agribusiness.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-163 Agribusiness Management  
**Credits:** 3  
Topics studied in this course are agriculture agencies; records and accounts; sources of credit, insurance, enterprise budgeting, cash flow, net worth; and business organization. Students will learn about the organization and structure of agricultural businesses; resource evaluation, policy development and implementations, functions of management, and laws and taxes that affect business.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-164 Livestock Management  
**Credits:** 3  
This course focuses on the various aspects of selection, breeding, herd health, raising of replacement stock, reproductive physiology, and marketing of livestock and livestock products. Students explore topics that affect livestock management such as the selection, operation, and maintenance of farm buildings, milking, feeding, and ventilation as well as manure handling equipment. Students will be able to analyze and prepare for a myriad of aspects that are included in the management of livestock.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-165 Livestock Nutrition  
**Credits:** 3  
This course emphasizes the skills, techniques and concepts necessary for sound feeding management. Students engage in the practice of calculating feed values and pricing, as well as consumption requirements for livestock. Students also investigate necessary information from feed tag labels and base feeds as they create simulated feeding programs for specific livestock with special attention given to the metabolic diseases of lactating animals. Through the use of basic ration balancing concepts, students will be able to create simple rations for specified livestock.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-166 Precision Agriculture Technologies  
**Credits:** 3  
This course provides an introductory overview of precision farming concepts and the tools of precision farming (GPS, GIS and VRT). Students will engage in the use of each of these tools within the processes of a precision farming system. Students will participate in several simulated hands-on activities using actual farm data to be able to properly use these tools in a real world agricultural setting.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-169 Career Develop in Agriculture  
**Credits:** 2  
This course is designed to assist students in developing career leadership skills for the agriculture industry. Units of study include: goal setting, strengths finder; career opportunities, employment preparation, industry issues, and the role of professional organizations in agriculture.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-180 Introduction to Animal Science  
**Credits:** 3  
The course provides fundamental knowledge of the animal science field. Topics include animal health, animal environments, anatomy and physiology, genetics and reproductions, animal feedstuffs, and job related safety. Participants will experience animal concepts through the completion of hands-on activities.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-181 Crop Management  
**Credits:** 3  
Students will be introduced to all phases of the management and economics of crop production. Students will explore and analyze specific topics related to variety, selection, planting, pest control, harvesting, storage, and marketing. Students will engage in project based learning by developing a crop management plan which focuses on crop enterprise analysis and the production of a cropping budget.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

006-197 Agribusiness Internship  
**Credits:** 3  
Students will have the opportunity to apply course work to a practical, on-the-job experience in an agricultural career setting. Students will create a portfolio that includes their engagement in research, report writing and reflection of the structure of the business, products that are sold and the importance of this agricultural field to the economy of our state and nation. Students will be able to apply this knowledge in their second year courses and as they continue to explore the various careers available in the agricultural sector.

**Aid Code:** 10 - Associate Degree.  
Pre-requisites: (006-116) and (006-169) and (006-102) and (006-108) and (006-101) and (102-148)  
Co-requisites: (006-160) and (006-105) and (006-107) and (006-180) and (006-162) and (006-103)  
Complete Course Listing
Air Cond & Refrigeration Tech (601)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

601-110 Air Conditioning Fundamentals
Credits: 3

Air Conditioning Fundamentals is a course designed to teach the principles of operation of commercial and residential air conditioning systems as encountered in the HVAC/R servicing and installation business. This course is almost entirely theory with some laboratory covering the use of measuring instruments during operation of HVAC/R systems. All aspects of safety will be emphasized and reviewed throughout the course.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-111 Print Reading and Code
Credits: 2

HVAC print reading is analyzed in relation to each of the curriculum’s systems: heating, ventilation, air conditioning, and refrigeration. The students will be able to understand, recognize and apply symbols and specifications pertaining to each system as they are explained so that they can be followed in the system’s installation and repair. Overview of National Codes and Standards will be discussed and reviewed.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-112 ACR Piping Practices
Credits: 2

Students will examine and use the fundamental tools, equipment, and procedures used in pipefitting in this course. Matching system components and making proper connections are studied, planned, and practiced. Applications to domestic water distribution and hot water production will be reviewed. The student will also be introduced to duct work fabrication.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-121)
Complete Course Listing

601-113 Refrigerant Recovery, Evacuation and Charging Methods
Credits: 2

Students in this course will define, explain and analyze refrigerant recovery, recycle, and reclaim operations. Students will gain hands-on experience and practice in the installation, service, and repair of all HVAC and refrigeration systems as it pertains to EPA industry guidelines for recovery, recycle and reclaim operations.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-114 Industrial Comp Exam Review
Credits: 1

This course will be a comprehensive review of all applications and experiences from HVAC two year program at BTC. Students will engage in discussion and take practice exams that will enable them to hone their skills and knowledge in preparation for the Industrial HVAC Comprehensive Licensing Exam.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-115 Electrical Fundamentals
Credits: 3

A sound electrical background is essential in order to become a successful HVAC/R technician. Electrical Fundamentals provides experience with electrical theories, circuits, devices, and equipment. This is a combination lecture/lab course involving hands on experience with HVAC/R electrical components. There will also be an introduction to electrical diagram reading and drawing along with computer-aided tutorials. Electrical safety will be thoroughly discussed and reviewed during the course.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-116 Air Conditioning Fundamentals for HVAC/R
Credits: 1

Air Conditioning Fundamentals for HVAC/R 1 examines the theory and understanding needed for Air Conditioning safety, HVAC terminology and math principles encountered in the HVAC/R industry.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-117 Air Conditioning Fundamentals HVAC/R 2
Credits: 1

Air Conditioning Fundamentals for HVAC/R 2 examines the fundamentals of thermodynamics as to relates to the HVAC/R industry.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-118 Air Conditioning Fundamentals HVAC/R 3
Credits: 1

In this course, the student analyzes the air distribution of commercial and residential air conditioning systems as encountered in the HVAC/R servicing and installation business. Duct fabrication is also introduced and practiced.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-117)
Complete Course Listing
**601-121 Electrical Fundamentals for HVAC/R 1**  
**Credits:** 1

Electrical Fundamentals for HVAC/R 1 examines electrical safety in HVAC/R, analyzes atomic structure and introduces electrical quantities. In addition, Ohm's Law formulas are introduced and utilized in lab activities that examine a simple series circuit. Electrical diagram reading and drawing will be integrated into the lab activities. This is a combination lecture/lab course involving hands on experience with basic electrical circuits.  
**Aid Code:** 10 - Associate Degree.  
[Complete Course Listing](#)

**601-122 Electrical Fundamentals for HVAC/R 2**  
**Credits:** 1

Electrical Fundamentals for HVAC/R 2 examines Ohm's Law as it relates to series circuits, parallel circuits and combination circuits. Electrical diagram reading and drawing will be integrated into the lab activities. This is a combination lecture/lab course involving hands on experience with series, parallel and combination circuits.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-121)  
[Complete Course Listing](#)

**601-123 Electrical Fundamentals for HVAC/R 3**  
**Credits:** 1

Electrical Fundamentals for HVAC/R 3 examines electrical service, voltage systems and wire sizing. The effects of inductance and capacitance on an electric circuit will also be analyzed. In addition, electrical symbols and diagrams utilized in the HVAC/R industry will be analyzed through hands-on lab experiences.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-122)  
[Complete Course Listing](#)

**601-125 Computerized (HVAC/R) Design**  
**Credits:** 3

In this course, instruction will be given in blueprint reading and drawing of mechanical systems. Outlays of various heating and cooling systems in relation to architectural buildings are used. Proper mechanical schematic, isometric piping and flow diagrams are discussed and drawn. In addition, computer software is utilized to calculate heat loss and heat gains on residential and commercial buildings.  
**Aid Code:** 10 - Associate Degree.  
[Complete Course Listing](#)

**601-126**  
**Credits:** 2

This course will study the function and operation of the basic components in the refrigeration cycle along with learning the use of service tools the HVAC/R technician will utilize on the job. Refrigeration Fundamentals is a combination lecture/lab course in which the students will be able to apply theory to the lab using actual HVAC/R equipment. Computer simulators will be introduced as teaching aids. On the job and lab safety will be emphasized.  
**Aid Code:** 10 - Associate Degree.  
[Complete Course Listing](#)

**601-127**  
**Credits:** 2

In this course, instruction will be given in blueprint reading and drawing of mechanical systems. Outlays of various heating and cooling systems in relation to architectural buildings are used. Proper mechanical schematic, isometric piping and flow diagrams are discussed and drawn. In addition, computer software is utilized to calculate heat loss and heat gains on residential and commercial buildings.  
**Aid Code:** 10 - Associate Degree.  
[Complete Course Listing](#)

**601-128 Print Reading and Code 1**  
**Credits:** 1

This course will examine print reading in relation to building codes and standards relevant to the installation and service of residential and light commercial HVAC systems.  
**Aid Code:** 10 - Associate Degree.  
[Pre-requisites:** (601-128)  
[Complete Course Listing](#)

**601-129 Print Reading and Code 2**  
**Credits:** 1

This course continues to analyze the codes from prints, taking into consideration specific and unique building codes and standards relevant to the installation and service of residential and light commercial HVAC Systems.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-128)  
[Complete Course Listing](#)

**601-130 Heating Systems**  
**Credits:** 3

This course involves instruction and laboratory work on hydronic and steam systems. Students will be able to design, install, start-up and service gas and oil fired systems. This course is a combination of classroom presentation and lab.  
**Aid Code:** 10 - Associate Degree.  
[Complete Course Listing](#)

**601-131 Refrigeration Fundamentals 1**  
**Credits:** 1

In this course, students will engage in accessing to the sealed system. Students will develop an understanding of the system compressors and condensers through observation and analysis of the sealed system.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-118)  
[Complete Course Listing](#)

**601-132 Refrigeration Fundamentals 2**  
**Credits:** 1

In this course, students will examine the tools of the trade along with how to gain access to the sealed system. Students analyze system metering devices and evaporators.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-131)  
[Complete Course Listing](#)
601-133 Computerized HVAC/R Design 1
Credits: 1

In this course the learner will examine the fundamentals of heat transfer through different types of construction materials. Students will perform residential load calculations using ACCA Manual J8ae and computerized ACCA load calculation spread sheets. In addition, students will use ACCA Manual D for duct sizing.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-134 Computerized HVAC/R Design 2
Credits: 1

In this course the learner will be using Wrightsoft to perform residential and commercial load calculations and duct sizing. In addition, RESCheck will be analyzed and applied to check structures code conformity for heat loss. The student will develop an understanding of energy conservation through the appropriate analysis and application of size and selection of HVAC equipment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-133)
Complete Course Listing

601-135 Motors and Motor Controls
Credits: 3

This course is designed to give the student an understanding of the operation of various types of control devices and how combinations of these devices can be applied and varied to secure the desired conditions in heating and cooling systems. Students will interpret and draw in depth wiring diagrams using actual HVAC/R equipment. Computers will also be utilized in the studying of wiring diagrams. This course is mostly application oriented, with a review of electrical theory and safety.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-123)
Complete Course Listing

601-136 Motors and Motor Controls 1
Credits: 1

This course is designed to examine motor identification, motor troubleshooting procedures and fan motor replacement. This course also reviews the basics of electrical theory and safety.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-123)
Complete Course Listing

601-137 Motors and Motor Controls 2
Credits: 1

This course examines how to wire and troubleshoot single phase motor starting components. In addition, students test the operation of ECM motors.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-136)
Complete Course Listing

601-138 Motors and Motor Controls 3
Credits: 1

This course will introduce students to transformers, contactors, relays and motor starters. Students will gain hands-on experience through the application and analysis of wired lab boards and testing on HVAC/R equipment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-137)
Complete Course Listing

601-140 Control Circuit Applications
Credits: 3

This course is designed to teach systems application of electrical controls in the HVAC/R field. Control Circuit Applications will continue to emphasize the understanding of wiring diagrams along with troubleshooting controls, mechanical and electro-mechanical controls, electronic control circuits, and HVAC/R control applications. This course is a combination of lab and theory.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-135)
Complete Course Listing

601-141 Heating Systems 1
Credits: 1

Heating Systems 1 will examine the principles of natural gas heat as applied to residential heating systems. In addition, the student will apply proper gas piping techniques and will gas pipe a residential furnace. Testing/adjusting gas pressure on gas regulators and gas valves will also be analyzed and completed.

Aid Code: 10 - Associate Degree.
Complete Course Listing

601-142 Heating Systems 2
Credits: 1

Heating Systems 2 will study gas heating operating and safety controls. Testing of these controls on residential and light commercial heating systems will be practiced and applied.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-141)
Complete Course Listing

601-143 Heating Systems 3
Credits: 1

Heating Systems 3 will examine residential clean/tunes and split system residential heat pumps with electric heat. Testing of these clean/tunes and pumps on residential electric heating systems will be practiced and applied.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-142)
Complete Course Listing
601-145 Heating Systems Applications  
**Credits:** 3  
Heating System Applications covers the operation, maintenance and service of gas, propane and oil fired heating equipment. In addition, this class will also cover the operation and service procedure for heat pumps. This course is a balance of theory and application.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-130)  
Complete Course Listing

601-146 ACR Piping Practices 1  
**Credits:** 1  
Students are introduced to tools that measure, cut and ream soft and hard drawn copper to specifications used in the field of copper piping. In addition, The student will swage and flare soft and hard drawn copper. Students will understand and demonstrate safe copper piping skills utilized in the industry.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

601-147 ACR Piping Practices 2  
**Credits:** 1  
Students demonstrate how to braze and solder copper pipe in multiple applications. An emphasis on safety regulations and practices will be introduced and practiced throughout the demonstrations.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

601-148 Refrigeration Recovery, Evacuation and Charging Methods 1  
**Credits:** 1  
This course has student recover refrigerant from various types of air conditioning and refrigeration equipment. The student will apply evacuation methods on the system and charge the system with the correct amount of refrigerant. Refrigerant handling safety will be introduced and practiced.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-118)  
Complete Course Listing

601-149 Refrigeration Recovery, Evacuation and Charging Methods 2  
**Credits:** 1  
This course has student continues to have the student practice and apply proper techniques to recover and evacuate refrigerant from various types of air conditioning and refrigeration equipment. After the student has mastered the skills of recovery, evacuation and charging, the student will gain experience in administering the EPA Section 608 test.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-148)  
Complete Course Listing

601-150 Air Conditioning Applications  
**Credits:** 3  
This course includes the installation and service of air conditioning systems, including types of fan systems, duct service techniques, load calculating and estimating and air and fluid measurements. This course is a combination of classroom presentation and lab.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-110)  
Complete Course Listing

601-151 Air Conditioning Applications 1  
**Credits:** 1  
This course provides the student with hands-on servicing experience of window air conditioners, residential split systems, packaged light commercial air conditioners.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-132) and (601-138)  
Complete Course Listing

601-152 Air Conditioning Applications 2  
**Credits:** 1  
This course provides students with hands-on servicing experience of air-to-air heat pumps, geothermal heat pumps and water cooled unitary cooling systems.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-132) and (601-138) and (601-151)  
Complete Course Listing

601-153 Air Conditioning Applications 3  
**Credits:** 1  
This course provides students with hands-on servicing experience on high efficiency packaged commercial air conditioners, commercial split systems and water to air commercial chiller systems.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-132) and (601-138) and (601-152)  
Complete Course Listing

601-155 Refrigeration Applications  
**Credits:** 3  
This course involves servicing of commercial refrigeration systems using meters and service tools. Studies and calculations are made of commercial refrigeration systems, along with the design and selection of equipment. Refrigeration Applications is primarily hands on with some theory.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-120 or 601-126)  
Complete Course Listing

601-156 Control Circuit Applications 1  
**Credits:** 1  
In this course, students examine systems application of electrical controls in the HVAC/R field. Control Circuit Students understand wiring diagrams by creating and wiring systems utilizing ladder diagrams. Students will test Electromechanical and electronic circuits on equipment used in the field.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (601-137)  
Complete Course Listing
601-157 Control Circuit Applications 2  
Credits: 1

This course is designed to examine systems application of electrical controls in the HVAC/R field. Students analyze wiring diagrams as well as create and wire systems utilizing ladder diagrams. Students will also test pump down controls on Lab boards and equipment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-156)
Complete Course Listing

601-158 Control Circuit Applications 3  
Credits: 1

This course extends the examination of systems application of electrical controls in the HVAC/R field. Students continue to analyze more complex wiring diagrams as well as create and wire systems utilizing ladder diagrams. Students test pump down controls on Lab boards and equipment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-157)
Complete Course Listing

601-160 Hydronic Systems  
Credits: 3

This course involves instruction and laboratory work on hydronic and steam systems. Students will be able to design, install, start-up and service gas and oil fired systems. This course is a combination of classroom presentation and lab.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-130)
Complete Course Listing

601-161 Refrigeration Applications 1  
Credits: 1

Students in this course will examine and apply the four basic refrigeration components. Through hands-on activities in a simulated lab setting, students will be able to determine the four basic refrigeration components and troubleshoot appropriately.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-132) and (601-138)
Complete Course Listing

601-162 Refrigeration Applications 2  
Credits: 1

Students in this course will test the operation of reach-in freezers and walk-in freezers. Through hands-on lab activities, students will review the refrigeration fundamentals and apply these to fix and troubleshoot operation of varying units.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-132) and (601-138) and (601-161)
Complete Course Listing

601-163 Refrigeration Applications 3  
Credits: 1

Students in this course will test the operation of cube and flake ice machines. Through hands-on lab activities, students will review the refrigeration fundamentals and apply these to fix and troubleshoot operation of varying units.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-132) and (601-138) and (601-162)
Complete Course Listing

601-165 Electronic Energy Management Systems  
Credits: 3

Major types of automatic electrical control systems are described and compared. Programs, sensing and control points, signal transmission and processing, and other peripheral equipment which make up a complete building monitoring and control automation system are also explored. Students will be able to utilize computer controls either on the HVAC/R equipment or at a computer station to evaluate equipment operation. This course is a mixture of lecture along with some lab work.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-140) and (804-308 or 804-114)
Complete Course Listing

601-166 Electronic Energy Management Systems 1  
Credits: 1

Students in this course analyze the advance control circuit applications applied to residential split systems, package gas/electric systems and refrigerated fixtures with remote condensing units. In addition, students will test and analyze results of a wireless energy management system which controls the operation of the geothermal heat pumps.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-158)
Complete Course Listing

601-167 Electronic Energy Management Systems 2  
Credits: 1

Students in this course will test the operation of Trane Precedent and Voyager Constant Volume RTUs through the Trane SC energy management system. In addition, the Lennox Prodigy system will be tested and results analyzed on a RTU.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-158) and (601-158)
Complete Course Listing

601-168 Electronic Energy Management Systems 3  
Credits: 1

Students in this course will test the operation of Trane SC control of a commercial air handler with a DX split system and an in-line duct furnace supplying air to zoned re-heat boxes. In addition, a commercial air handler with a chiller and chilled water coil, a hydronic boiler and hot water coil hot with zoned water re-heat coils will be tested with results analyzed. An E2 system controlling a reach-in frozen food case will be programmed and tested for adequate results. Students will also install a Com-trol energy management system and program the controls for walk-in freezer.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-158) and (601-167)
Complete Course Listing
601-170 Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Service Internship
Credits: 3
Students will have the opportunity to apply their classroom experience on the job. Local HVAC/R contractors have shown great interest in the program and are willing to accept students for internship. Internship time can be accrued throughout the two-year program to achieve a total of 108 hours.
Aid Code: 10 - Associate Degree.
Complete Course Listing

601-171 HVAC Installation 1
Credits: 1
This course involves the student by having them install black gas pipe and ACR piping on a split residential system. The student perform basic residential load calculation and duct sizing using industry standard software. The student will use information gathered to select the correct HVAC system for the application. The student will install a gas fired furnace along with a condensing unit, evaporator, gas piping and refrigeration piping.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-141) and (601-147) and (601-156)
Complete Course Listing

601-172 HVAC Installation 2
Credits: 1
Students in this course will be involved in the fabrication and installation of duct work on a residential furnace. In addition, a zoning control system will be installed by students and start up tests will be performed per manufacturers’ instruction.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-141) and (601-147) and (601-156) and (601-171)
Complete Course Listing

601-173 HVAC Installation 3
Credits: 1
Students in this course will be involved in piping, wiring and starting up of a refrigeration pump down system. The system tests will be performed and checked by students using industry standards.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-172) and (601-157) and (601-147) and (601-141)
Complete Course Listing

601-175 Servicing, Troubleshooting Heating, Ventilation, Air Conditioning and Refrigeration Equipment
Credits: 3
Various methods of troubleshooting and servicing of HVAC/R systems are studied. Utilizing manufacturer’s guidelines and service tools, the student will demonstrate customer relations, mechanical aptitude and bookkeeping skills that are essential to becoming a well rounded service technician. The students will also perform computer simulated service calls to reinforce knowledge. This class is almost entirely hands on.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-140) and (601-150) and (601-155)
Complete Course Listing

601-176 Heating Systems Applications 1
Credits: 1
In this course, students work on residential oil furnaces, residential heat pumps, light commercial packaged roof top units, commercial in-line duct furnaces, and hanging unit heaters. Students will be introduced to the various components that make up these systems and will be able to troubleshoot, maintain and service this equipment per manufacturers instructions.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143)
Complete Course Listing

601-177 Heating Systems Applications 2
Credits: 1
Students engage in work on light commercial packaged roof top units. Students will be introduced to the various components that make up these systems and will engage in troubleshooting, maintaining and servicing this equipment per manufacturers instructions.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-176)
Complete Course Listing

601-178 Heating Systems Applications 3
Credits: 1
In this course, students work on in-line duct furnaces, commercial hydronic systems and hanging unit heaters. Students will be introduced to the various components that make up these systems and will engage in troubleshooting, maintaining and servicing this equipment per manufacturers instructions.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-175)
Complete Course Listing

601-180 Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Installation
Credits: 3
This course involves installing, starting up and maintaining a gas fired furnace with a central air conditioning system. The learner will begin by performing a residential load calculation and duct sizing using industry standard software. The information gathered from the load sizing software will then be used to select the correct HVAC system for the application. The student will then install the gas fired furnace along with the condensing unit, evaporator, ductwork, gas piping, refrigeration piping and control system. This course is almost entirely hands on.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-120 or 601-126) and (601-130)
Complete Course Listing

601-181 Hydronic Systems 1
Credits: 1
This course involves students in the theory and application of hydronic and steam systems. Students will design, install, start-up and service gas systems.
Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-146)
Complete Course Listing
601-182
Credits: 1

In this course, students engage in system installation on hydronic and steam systems. Students prepare and install the systems they designed in the previous Hydronic Systems course.

Complete Course Listing

601-183 Hydronic Systems 3
Credits: 1

In this course, students engage in system control design on hydronic and steam systems. Students wire control circuits and performing system start-up.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-182) and (601-143) and (601-146)
Complete Course Listing

601-184 Service and Troubleshooting HVAC/R 1
Credits: 1

Students will apply various methods of troubleshooting and servicing of HVAC/R systems. Utilizing manufacturer’s guidelines and service tools, the student will demonstrate customer relations, mechanical aptitude and bookkeeping skills that are essential to becoming a well rounded service technician.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-153) and (601-158) and (601-163)
Complete Course Listing

601-185 Service and Troubleshooting HVAC/R 2
Credits: 1

This course is a continuation of Service and Troubleshooting HVAC/R 1. Students will continue to apply various methods of troubleshooting and servicing of HVAC/R systems. Utilizing manufacturer’s guidelines and service tools, the student navigate customer relations, display mechanical aptitude and demonstrate bookkeeping skills that are essential to becoming a well rounded service technician.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-153) and (601-158) and (601-163) and (601-184)
Complete Course Listing

601-186 Service and Troubleshooting HVAC/R 3
Credits: 1

This course is a continuation of Service and Troubleshooting HVAC/R 2. Students will continue to analyze and troubleshoot issues while servicing HVAC/R systems. Utilizing manufacturer’s guidelines and service tools, the student navigate customer relations, display mechanical aptitude and demonstrate bookkeeping skills that are essential to becoming a well rounded service technician.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-153) and (601-158) and (601-163) and (601-185)
Complete Course Listing

601-187 Industrial Competency Exam Preparation
Credits: 1

Students engage in a comprehensive review of all applications and experiences from program courses. Students will engage in discussion and take practice exams that will enable them to hone their skills and knowledge in preparation for the Industrial HVAC Comprehensive Licensing Exam.

Aid Code: 10 - Associate Degree.
Pre-requisites: (601-143) and (601-153) and (601-158) and (601-163)
Complete Course Listing

Automobile-Mechanical (404)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

404-338 Service Fundamentals
Credits: 2

Introduction to the automotive service facility. Safety, basic hand tool and power tools application is defined to help the prospective automobile technician work safely and efficiently. Students will learn how to use both comprehensive and manufacturer’s shop manuals to perform basic under-hood and under-car services.

Complete Course Listing

404-339 Engine Service
Credits: 4

This course is designed to introduce the student to the theory of gasoline engine operation and design. The course also includes methods of diagnosis, disassembly, measurement, and reassembly. Emphasis is placed upon diagnostic ability and skill development.

Complete Course Listing

404-342 Heating & Air Conditioning Service
Credits: 4

This course provides a basic understanding of the automobile cooling and air conditioning system. Theory of air conditioning is defined. Emphasis is placed on laboratory performance and related skills development.

Complete Course Listing

404-343 Automotive Machine Shop
Credits: 1

This course is designed to acquaint the student with automotive machine shop practices. It gives the student an opportunity to correctly use tools such as the outside micrometer, telescoping gauge, drill press, brake rotor and drum lathe, and other measuring instruments. Both English and metric systems are covered in this course.

Complete Course Listing
Automobile-Mechanical (404)

404-345 Brake Service
Credits: 4

The student is introduced to the fundamentals of automotive brake systems including drum, disc, hydraulic, power, and antilock systems. Brake measurement is a high priority.

Complete Course Listing

404-346 Steering & Suspension Service
Credits: 4

The student is introduced to basic wheel alignment, suspension systems, and steering systems. Computerized four-wheel alignment is a high priority in this course.

Complete Course Listing

404-347 Drive Train Service I
Credits: 3

This course is designed to introduce the student to the fundamentals of the power train. Emphasis is placed on the diagnosis and repair of differentials and manual transmissions.

Complete Course Listing

404-348 Service Simulation
Credits: 2

This course is designed to introduce the student to shop operating procedures. Students can obtain credit for part-time employment in an automotive related work environment.

Complete Course Listing

404-349 Service Management
Credits: 1

The student becomes familiar with the use of service related documents and procedures in this course. Emphasis is placed on shop liability and state and federal laws concerning automotive servicing.

Complete Course Listing

404-350 ASE Certification Review
Credits: 1

This course is designed to prepare the student for ASE certification.

Complete Course Listing

404-351 Electronic Engine Control Fundamentals
Credits: 4

This course is designed to introduce the student to computerized engine controls and related electrical components. Emphasis is placed on theory of operation and diagnostics using state of the art diagnostic equipment. Special emphasis will be placed on skillfully understanding and using shop manuals for related systems.

Complete Course Listing

404-352 Computerized Fuel Systems Service
Credits: 2

The student is introduced to various computerized fuel systems. Topics covered are: electronic fuel injection, throttle body injection systems, port fuel injection, multi-port injection systems and sequential injection systems. Emphasis is placed on diagnostics and development of skills in using sophisticated diagnostic equipment.

Pre-requisites: (404-357)
Complete Course Listing

404-353 Emission Control Service and Certification
Credits: 1

This course is designed to help the student develop skills necessary to diagnose, adjust, replace, or repair emission related component parts by skillfully demonstrating the use of diagnostic equipment.

Complete Course Listing

404-354 Engine Performance Testing
Credits: 4

This course is designed to maintain OBD II computerized vehicles and develop systematic repair procedures through the use of shop manuals and sophisticated diagnostic equipment. Emphasis is placed on driveability problems.

Pre-requisites: (404-357)
Complete Course Listing

404-355 Drive Train/Transaxle Service II
Credits: 2

This course is designed to introduce the student to automatic transmission and transaxle service.

Pre-requisites: (404-357)
Complete Course Listing

404-356 Electrical Service
Credits: 4

This course is designed to help the students learn how to diagnose and repair electrical problems related to automobile accessories. Emphasis is placed on skillfully understanding and testing procedures necessary for repair.

Complete Course Listing

404-357 Electronic Engine Control Diagnosis
Credits: 2

This course is a composite of all computerized systems. Emphasis is placed on electrical skills, diagnostic procedure, driveability problems, and repair. An over view of engine computer function, computerized fuel delivery, emission controls, and computer chassis control is included.

Co-requisites: (404-351)
Complete Course Listing
404-358 Service Internship
Credits: 2

Students wishing for hands-on shop experience can obtain two credits for on-the-job training related directly and in cooperation with a service facility. Prior consent of automotive instructor is required. The student completes a comprehensive study after successfully completing the intern requirements.

Pre-requisites: (404-357)
Complete Course Listing

102-115 Management Principles
Credits: 3

Students will receive a comprehensive overview of the functions and principles of management that leads to success in the operating climate of modern businesses. The five functions of management will be introduced and applied to business operational problem-solving.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-148)
Co-requisites: (801-195 or 801-136 or 102-109)
Complete Course Listing

Business Management (102)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

102-100
Credits: 3

This course will incorporate lecture and discussion materials to improve students’ understanding of basic business and entrepreneurship topics. It will include a hands-on component involving interaction with local employers, and community leaders will expose participants to business and management career opportunities available to AAS program graduates.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-109 Business Careers Planning and Business Communication
Credits: 3

This course covers how to use professional and effective communication in business settings. Students learn and practice business oral communication, presentations, and various forms of written communication. Business career exploration, resume writing, and interviewing are also addressed in this course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (103-106)
Co-requisites: (103-128 or 103-116 or 106-146)
Complete Course Listing

102-110 Business Careers Planning
Credits: 1

In Business Career Planning, students will focus on personal and professional preparation for a career in business related occupations. The course covers interpersonal and intrapersonal success skills including self-esteem, understanding human behavior, creative problem solving and decision making, effective communication skills, time management, setting priorities, and organizational techniques. Job search strategies will be introduced.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-120 Small Business Management
Credits: 3

The course provides a detailed study of all phases of managing a small business. Specific problems of small operations such as financing, developing, staffing, and growing a small business are analyzed. Management topics such as quality, leadership, applications of technology, legal issues and more will be applied to isolating significant problems and implementing solutions. Current issues and trends in entrepreneurship will be included.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-115) and (104-102)
Complete Course Listing

102-121 Customer Service Management
Credits: 3

Customer Service Management examines the role of managing customer service to add value and achieve a firm's long-term goals. Topics include the purpose of customer service; development of customer service goals, policies and plans; training, development and evaluation of customer service staff; and using conflict resolution techniques to handle difficult customer service situations. Emphasis is placed on management duties and communication to provide customer satisfaction for both internal and external customers.

Aid Code: 10 - Associate Degree.
Pre-requisites: 102-115
Complete Course Listing

102-122 Business Sustainability Planning
Credits: 3

Learners in this course will be introduced to current topics influencing business practices relative to business sustainability. Concepts include green business, planning business sustainability programs, and leading corporate social responsibility efforts that may provide a foundation for both business profitability and environmentally friendly processes. Learners will discuss green business practices, analyze case studies, and take away a management process for identifying and implementing sustainability projects, which also contribute to an organization's triple bottom line.

Aid Code: 10 - Associate Degree.
Pre-requisites: (804-123)
Complete Course Listing
102-125 Business Management Internship
Credits: 2

This course is a work-based learning program involving actual business operations in the community. It is intended to provide students with actual work experience. Students will obtain a position at an approved worksite, and work a minimum of 144 hours under the supervision of both their instructor and an onsite supervisor. Students must have a minimum 2.0 overall GPA to enroll in the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-110) and (102-115)
Complete Course Listing

102-126 Business Plan and Entrepreneurship
Credits: 2

This course is a learning program involving planning actual business operations. It is intended to provide students with the tools to start their own business. Students will improve their understanding of entrepreneurship topics. They will also research, develop, write, and present a business plan. Students must have a minimum 2.0 overall GPA to enroll in the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-110) and (101-117) and (102-115) and (102-120) and (104-102)
Complete Course Listing

102-127 Business Management Internship
Credits: 3

This course is a work-based learning program involving actual business operations in the community. It is intended to provide students with the tools to start their own business. Students will improve their understanding of entrepreneurship topics. They will also research, develop, write, and present a business plan. Students must have a minimum 2.0 overall GPA to enroll in the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-109) and (102-115) and (196-193 or 116-193)
Co-requisites: (101-117) and (102-120) and (102-122) and (102-155)
Complete Course Listing

102-128 Business Plan and Entrepreneurship
Credits: 3

The course is a learning program involving planning actual business operations. It is intended to provide students with the tools to start their own business. Students will improve their understanding of entrepreneurship topics. They will also research, develop, write, and present a business plan. Students must have a minimum 2.0 overall GPA to enroll in the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-117) and (102-109) and (102-115) and (102-120) and (104-102) and (801-195 or 801-136)
Complete Course Listing

102-130 Business Finance and Budget Management
Credits: 3

This is a basic finance course for managers and supervisors. The learner applies the skills necessary to achieve an understanding of the fiscal/monetary aspects of business. Each learner will demonstrate application of business types, cycles, forecasting, budgeting, expense control, and financial statement interpretation relevant to the supervisor as a non-accountant. These financial principles will then be applied to the manager's role in decision-making and includes problem-solving case studies.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-117) and (102-115) and (103-106)
Complete Course Listing

102-131 Introduction to Business Sustainability
Credits: 1

This course will provide an introduction of current topics that influence business practices relative to business sustainability. Concepts include developing business sustainability efforts, beginning corporate social responsibility efforts and planning for profitable and environmentally friendly processes. Learners will discuss green business practices, analyze case studies and discuss an organization's triple bottom line.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-132 Lean Operations
Credits: 1

Upon completion of this course, learners will develop their understanding of how to assess a manufacturing process and review the transformation of inputs to outputs. Learners will analyze non-value added activities within work flows and consider the underlying values of a lean enterprise. Learners will explore the characteristics of an organizational culture necessary to develop a lean operation and study various production methods that will enable efficiencies including JIT (Just in Time), quality management, quality control, continuous improvement methodologies, statistical process control chart interpretation, material handling and production logistics.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-133 Lean Tools
Credits: 1

In this course, learners will examine the lean tools available to identify and eliminate wastes from a process. Learners will examine the benefits and challenges of conducting a 5S implementation strategy, A3 Storyboard strategy, and root cause analysis. Learners will utilize process mapping to evaluate and develop plans to reduce and/or eliminate waste and evaluate the various approaches to continuous improvement.

Aid Code: 10 - Associate Degree.
Complete Course Listing
102-134 Lean Six Sigma
Credits: 3

Upon completion of this course, learners will have developed a body of knowledge around Six Sigma concepts that qualify them to become Green Belt Certified. This includes an introduction to Six Sigma, recognition of the DMAIC methodology, and assessing a lean enterprise. Learners will develop their ability to do statistical evaluations to evaluate a production process. Learners will work through the Define, Measure, Analyze, Improve and Control phases to implement a problem solving or continuous quality improvement. Learners will examine the steps of planning and executing a kaizen event as well as utilize the seven SPC (statistic process control) tools to improve a process.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-135 Lodging Management
Credits: 3

This course takes a management perspective in introducing students to the organization and structure of hotels, restaurants, clubs, cruise ships, and casino hotels. Topics include: business ethics, franchising, management responsibility such as human resources, marketing and sales, and advertising.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-136 Hotel Operations Management
Credits: 3

This course takes a management perspective in introducing students to lodging operations. There are chapters on Structure and service in the lodging industry, front office, housekeeping, sales, and marketing accounting human resources and maintenance departments. Also chapters in safety and security and careers in the lodging industry.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-137 Business Communications
Credits: 1

In Business Communications, students will learn the basics of professional and effective communication in business settings. Students will receive instruction and feedback on oral communication as well as the use of written communications to include business emails, memos, and letters. The importance of favorable and appropriate communication with both internal and external parties will be covered. All written communication will require keyboard use.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-139 Culinary Business Administration
Credits: 3

This course introduces the student to basic bookkeeping, and management reporting. The student is taught how to establish and maintain a basic bookkeeping system.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-104) and (316-107) and (316-114) and (316-119) and (316-164)
Complete Course Listing

102-148 Introduction to Business and Management
Credits: 3

Students will be introduced to business operations, focusing on a basic understanding of the activities, functions, and principles of business enterprises. This course covers the responsibilities and challenges of operating a business. The course emphasizes human relations, management, marketing, finance, human resources, global business, and starting a business.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-150 Global Business Fundamentals
Credits: 3

This course is designed to give students a fundamental understanding of the environment in which international business operates and of the business practices required to compete successfully in global markets. Topics include: country differences in political, economic, cultural, and ethical systems; cross-border trade and investment; global monetary systems; strategies involved in international business; and management challenges in global markets.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-148) and (801-195)
Complete Course Listing

102-155 Introduction to Project Management
Credits: 3

This course gives an overview of project management principles and covers the fundamental knowledge and skills needed to improve the outcome of any project. It focuses on the project management processes and knowledge areas. Students will learn how to plan, schedule, and control projects. Students will learn project management tools and techniques and use them to define project goals, objectives, costs and time, and manage project scope, schedule and resources.

Aid Code: 10 - Associate Degree.
Complete Course Listing

102-156 Project Leadership and Communications
Credits: 3

This course focuses on soft skills, including leadership, communications, team organization and development, and conflict management. It will provide students with the essential management and leadership skills to lead a project with confidence. Students will learn how to build high-performance project teams through effective leadership and influence, utilize management skills to encourage productivity and cooperation, and implement creative problem-solving techniques to ensure project success.

Aid Code: 10 - Associate Degree.
Co-requisites: (102-155 or 196-111)
Complete Course Listing
102-157 Managing Projects
Credits: 2

This course focuses on using the Microsoft Project software to plan, schedule and control projects. Students will define a project's scope and apply work breakdown structure (WBS), the foundation of project planning. Students will learn how to configure tools and options, set-up projects, estimate, schedule, and budget projects.

Aid Code: 10 - Associate Degree.
Co-requisites: (102-155) and (102-156) and (102-157)
Complete Course Listing

102-158 Project Management Capstone
Credits: 3

This course is designed to give students practical experiences in managing projects. Students will be given the opportunity to review, synthesize, and apply their project management knowledge and skills from prior courses and experience. Students will be working in a lab setting leading a real-life project and project management deliverables, including project charter, project plan, status reports, and post-project reviews. Students will facilitate meetings, track planned and actual values, and update project plans.

Aid Code: 10 - Associate Degree.
Co-requisites: (102-155 or 196-111) and (102-156) and (102-157)
Complete Course Listing

102-160 Business Law
Credits: 3

This course is designed to provide the student with a working knowledge of law as it relates to the rights and responsibilities of businesses and individuals. Emphasis is placed on torts, contracts, case analysis, ethics, and social responsibility, particularly in the business context.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Career Education (862)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

862-764 BSE Employability Skills/Career Decision 2
Credits: 3

Develops general information involved with career choices including self-concept, values, needs and abilities. Occupational information and expansion of vocational choices are included. Outside speakers are invited to share information. Hands on experience includes filling out forms, interviews and study of resumes.

Aid Code: 74 - Intern B (6.0-8.9).
Complete Course Listing

Communication Skills (801)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

801-119
Credits: 3

This is a course designed for students who are interested in learning about music, radio, television, and film. However, the nature and scope of the course goes beyond mere media appreciation. The overall objective is to provide students with an understanding of the forms of Mass Communication and insure that the students learn how to communicate interpersonally about the films, television shows, and radio music that they see and hear. Main learning activities: movies, recorded music and television shows will be seen and heard regularly in class and discussed and critiqued formally outside of class.

Aid Code: 10 - Associate Degree.
Complete Course Listing

801-136 English Composition 1
Credits: 3

This course is designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing, and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research, and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of written documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 070 or COMPASS Writing Skills, 083 or ACT English, 18 or Test Waived-College Degree or 831-103 or 831-103) and (COMPASS Reading Skills, 073 or AccuPlacer Reading Comp, 076 or ACT Reading, 16 or ASSET Reading Skills, 39 or Test Waived-College Degree or 838-104 or 839-104 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-195 Written Communication
Credits: 3

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments is designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of written documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or AccuPlacer Sentence Skills, 083 or ACT English, 18 or Test Waived-College Degree or 831-103 or 831-103) and (COMPASS Reading Skills, 073 or AccuPlacer Reading Comp, 076 or ACT Reading, 16 or ASSET Reading Skills, 39 or Test Waived-College Degree or 838-104 or 839-104 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing
801-196 Oral/Interpersonal Communication
Credits: 3
Focuses upon developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects.
Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 830-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-197 Technical Reporting
Credits: 3
The student will prepare and present oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.
Aid Code: 10 - Associate Degree.
Pre-requisites: (801-195 or 801-136 or Test Waived-College Degree) Complete Course Listing

801-198 Speech
Credits: 3
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.
Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-311 Communication
Credits: 2
This course reviews the grammar and writing skills that an adult learner needs to write clearly, concisely, and persuasively on the job. Students will produce a variety of job-related documents such as: business memos, letters, and short reports. The course will provide techniques that will improve the effectiveness with which learners communicate interpersonally, and within small groups. Students will learn to prepare and deliver oral presentations.
Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (ASSET Writing Skills, 38 or COMPASS Writing Skills, 038 or AccuPlacer Sentence Skills, 063 or ACT English, 15 or Test Waived-College Degree or 851-781 or 851-782 or 851-782 or 851-783 or 851-783 or 851-783)
Complete Course Listing

Computer Basics (860)
Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

860-764 Computer Basics
Credits: 3
This course covers elementary computer skills such as file management; document formatting, creating and managing; using the Internet; basic e-mail and information management.
Aid Code: 74 - Intern ABE (6.0-8.9)
Complete Course Listing

Computer Service Tech-Hardware (631)
Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

631-100 Microcomputer Fundamentals
Credits: 3
This course covers the program environment and binary functionality of the personal computer. An in-depth look at PC component identification, use, and functions are then observed. The course relies heavily on hands-on construction and preparation of the PC hardware, followed by a review of the technical resources and proper troubleshooting methods. This course incorporates a hands-on lab and performance assessment, where students work with the instructor and one another to perfect their skills.
Aid Code: 10 - Associate Degree.
Complete Course Listing

631-101 PC Software Fundamentals
Credits: 3
This course familiarizes the learner with Windows and Linux operating systems, popular business applications, and computer virus eradication. Students will learn how to properly install, use and troubleshoot each operating system and software package – to include software detailing, software utilities, and licensing. This course will help to ready students for the IC3 certification along with the CompTIA A+ certification.
Aid Code: 10 - Associate Degree.
Co-requisites: (631-100)
Complete Course Listing

631-102 PC Peripherals and Troubleshooting
Credits: 3
Students will apply the troubleshooting theory and repair various scenario-based problems involving computer hardware, software, and peripherals. Students will learn about the installation and setup of various computer peripherals, to include (but not limited to) various types of printers, scanners, and digital cameras.
Aid Code: 10 - Associate Degree.
Co-requisites: (631-101) and (631-100)
Complete Course Listing
631-103 Apple Devices and Operating Systems  
Credits: 3

The Apple Devices & Operating Systems course provides a comprehensive overview of several pieces of Apple hardware and operating systems. Students will learn the installation, configuration, and troubleshooting of the operating systems and hardware. Network installation, configuration, and troubleshooting will also be included.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-112)  
Complete Course Listing

631-104 Cyber Ethics  
Credits: 3

In this course students will examine situations that are considered to be in a “gray” area that many IT specialists face on a daily basis. Students will evaluate the situations presented to them and determine the best action plan based on a set decision-making process.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-111)  
Complete Course Listing

631-105 Helpdesk Fundamentals  
Credits: 3

The student will gain knowledge and experience in applying the techniques used in problem troubleshooting, end-user support and customer service. The student will also become familiar with and apply the tools used in user supply and help desk operations.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 631-112  
Complete Course Listing

631-106 IT Customer Service Fundamentals  
Credits: 3

This course is designed to instruct students on the principles of service calls and customer relations skills needed for success as a field service technician. Practical interviews and role playing are included in this course, with emphasis on phone and electronic support skills based on an Information Technology environment.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 631-112  
Complete Course Listing

631-107 Linux Operating Systems  
Credits: 3

An introduction to Linux desktop and server are covered. Topics include installation, administration, Linux commands, and troubleshooting. The learner will apply previous knowledge to set up a network that combines Linux, Windows, and Apple operating systems. This course prepares students for the CompTIA Linux+ certification.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-123)  
Complete Course Listing

631-108 Manufacturing Communication Protocols  
Credits: 3

This hands-on course focuses on the principles of network data communications. Serial and parallel protocols, network topologies and cabling media will be explored. Time will be spent studying ethernet TCP/IP, CIP, and other industrial protocols such as DeviceNet and ControlNet. Students will configure and troubleshoot networks and discuss the importance of network security.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-115 or 620-115)  
Complete Course Listing

631-109 Network Portfolio 1  
Credits: 1

This is the first of two capstone courses for second year students. Students will create a portfolio based on a provided scenario. They will be required to provide items such as wireless assessments of the area, recommend required equipment, provide a Gantt chart, etc based on the knowledge they gained from the first semester. This is an individual project, and students will be able to use the portfolio to show to prospective employers.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-112)  
Complete Course Listing

631-110 Network Portfolio 2  
Credits: 1

This is the second course of a two part capstone portfolio project that will require students to add new features, equipment and theories based on the knowledge they have gained throughout the four semesters of the Manufacturing Information Technology Specialist program. Students will be able to apply their knowledge in areas such as Linux operating systems, advanced wireless networking, mobile device and virtual machine fundamentals as would be needed in various scenarios on a manufacturing shop floor. This portfolio will give students an organized record to share with prospective employers their knowledge and skills they have obtained throughout all their courses in this program.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-109)  
Complete Course Listing

631-111 PC Hardware Assessment  
Credits: 1

This is the first of a two part capstone course project that will require students to use the information that they have gained throughout the first semester to collaborate on a group project. Students will develop a plan to produce a computerized machine by assessing their hardware needs, types of processors, circuit boards and controllers to be used as well as understand budgeting and invoicing procedures. Students will be able to apply this planning phase of the project in the second semester course, PC Hardware Interfacing.  
Aid Code: 10 - Associate Degree.  
Co-requisites: (631-100) and (631-101)  
Complete Course Listing
631-112 PC Hardware Interfacing  
Credits: 1  
This is the second of two part capstone course project that will require students to use information that they have gained throughout the second semester to collaborate on a group project. Students will combine the planning stage in the first semester capstone course, PC Hardware Assessment, to assemble a computerized machine, paying special attention to decision making as it pertains to choosing different operating systems and networking within a larger system. Students will also be expected to incorporate the ideals of Green IT (recycling) and cyber ethics throughout this production project.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-111)  
Complete Course Listing

631-113 Virtual Machine Fundamentals  
Credits: 3  
This course is an introduction to virtual machines. Topics include various types of virtual machine software and their installation, administration, usefulness, and troubleshooting, as well as how these apply to IT and manufacturing.  
Aid Code: 10 - Associate Degree.  
Co-requisites: (631-107) and (631-114) and (631-121)  
Complete Course Listing

631-114 Mobile Device Fundamentals  
Credits: 3  
This course first provides students with a hands-on exploration of different mobile device hardware to gain an understanding of their functions. Students will then examine the different operating systems that are used in today's devices. The remaining sections of the course take the student through mobile device management, networking, security, and troubleshooting.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-107)  
Complete Course Listing

631-115 Network Fundamentals  
Credits: 3  
This course covers the basic theories and technologies involved in Local Area Networks (LAN) and Wide Area Networks (WAN). Students gain knowledge in cabling schemes, specific hardware and software types, protocols and OSI layers. Both the physical and logical aspects of networks will be studied, giving students the ability to apply basic entry level technician skills in common office environments and manufacturing LANs.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-111)  
Complete Course Listing

631-116 Troubleshooting Shared Network Resources  
Credits: 3  
This course is designed to prepare the network technician for a variety of networked environments and focuses on the installation, configuration, and troubleshooting of network operating systems and network hardware. Security, resource sharing, cable installation, and troubleshooting are emphasized. The student will also create a basic network diagram and peer to peer network utilizing the operating systems installed on their lab PC.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-115)  
Complete Course Listing

631-118 Green IT  
Credits: 3  
Green IT covers the history of the American Green Movement and definitions. We then examine policies and regulations, recycling laws and methods. We next examine how to make the data center, the office, and the organization “green,” and what tools we can use to do this. Finally, the students are required to employ everything that they have learned and apply it by developing a plan for a scenario-based issue.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

631-119 Wireless Networking  
Credits: 3  
This course introduces the student to wireless fundamentals. As a hand-on course, students will cover basic wireless installation, implementation, and troubleshooting for various types of wireless networks. Some topics that will be discussed are RF Basics, wireless networking devices, and the 802.11 standard. This course will help prepare students for the CWTS (Certified Wireless Technology Specialist) certification.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (631-103)  
Complete Course Listing

631-120  
Credits: 3  
The Industrial Computer Applications course is designed to meet the need for foundational computer training in industrial occupations. Using a self-paced, modular format, the ICA course is flexible to meet the needs of students with varying backgrounds in computer usage. Topics covered include: PC parts identification (including communications ports), operating system usage, file management, word processing, spreadsheet usage, and Internet usage.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing
The Wireless Networking 2 course builds from the knowledge gained in Wireless Networking 1. The hands-on learning continues as students will focus on advanced RF Technologies, learn regulations and standards, implement network security, and perform a wireless network survey and install, as well as configure a building-wide wireless network. This course will help prepare students for the CWNA (Certified Wireless Network Administrator) certification.

Aid Code: 10 - Associate Degree.
Pre-requisites: 631-119
Complete Course Listing

This internship-style course provides an opportunity for the student to experience on the job training in which they will be able to apply concepts, principles and skills gained throughout the Computer Service Technician program. Students will engage in on the job training in areas such as installing operating systems, troubleshooting hardware and software issues, as well as reconfiguring small and large networking systems. Students will gain the practical knowledge necessary to be able to work collaboratively and apply their knowledge in the workplace.

Aid Code: 10 - Associate Degree.
Pre-requisites: (631-112)
Complete Course Listing

Students will be introduced to various types of malicious software found throughout the Information Technology industry that infect various types of equipment. Through this course, they will be able to analyze malicious software, understand its functionality, and engage in removing the malicious software from several types of operating systems and machines.

Aid Code: 10 - Associate Degree.
Pre-requisites: (631-111)
Complete Course Listing

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

This course covers a number of different software topics: familiarization with popular business applications, computer virus eradication – to include malware and spyware, software detailing, software utilities, and licensing.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Computer Service Technician Program.
Co-requisites: 631-100
Complete Course Listing

This course culminates the three core courses and the two previous Hardware Support courses in an advanced diagnosis and repair course that, on completion, will mark the achievement of the Computer Hardware Support Certificate for the learner. Hands-on PC troubleshooting skills are emphasized.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Computer Service Technician Program.
Co-requisites: (450-316) and (631-100) and (631-101) and (631-102)
Complete Course Listing

This course focuses on printers, the specialized functions of various kinds of printers, and printer troubleshooting. Digital input and data protection devices will also be examined.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Computer Service Technician Program.
Pre-requisites: (450-316) and (450-317) and (631-100) and (631-101) and (631-102)
Complete Course Listing

This course covers network hardware installation, configuration and troubleshooting in both peer-to-peer and server-based environments, cable installation, certification, and troubleshooting is emphasized. Wireless networking is also utilized.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Computer Service Technician Program.
Pre-requisites: (450-316) and (450-317) and (631-100) and (631-101) and (631-102)
Co-requisites: (450-319) and (450-320) and (631-115)
Complete Course Listing
450-322 Service Support Techniques  
Credits: 1  
This course provides an opportunity to apply concepts, principles and skills learned in the CST program in the workplace. Emphasis is placed on applying skills to job tasks, modeling core abilities and seeking a job.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Computer Service Technician Program.  
Pre-requisites: (450-315) and (450-316) and (450-317) and (631-100) and (631-101) and (631-102)  
Co-requisites: (450-319) and (450-320) and (450-321) and (631-115) and (631-116) and (631-117) or (631-118)  
Complete Course Listing  

Computer Software (103)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  

103-106 Introduction to Microsoft Office Suites  
Credits: 3  
This course will introduce students to the Microsoft Office Suite software and overview many of the core competencies of Word, Excel, PowerPoint, and Access. Students will use technology for both problem solving and decision making and will be expected to use the resources available to search for answers to problems. Knowledge of creating and saving a document to a specific drive, open and closing multiple applications, locating a website using the URL and sending or receiving an e-mail with an attachment plus touch keyboarding skills are expected. If you are not proficient in these skills then Keyboarding 106-140 and Intro to Computer Basics 103-127 are highly recommended pre/corequisites for this course. These recommended pre/corequisites may also be taken concurrently with the Introduction to Microsoft Suites course. This course is taught using MS Office 2013. All assignments and assessments must be submitted using MS Office 2013.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-107 Intermediate Excel  
Credits: 2  
This course introduces intermediate level features of Microsoft Excel that allows students to advance their skill set by learning to work with advanced formulas, lists, and illustrations and to use spreadsheets to compile, analyze and present data for problem solving and decision making within organizations.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (103-128 or 103-106)  
Complete Course Listing  

103-108 Introduction to Microsoft Outlook  
Credits: 1  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-110 Introduction to Microsoft Windows  
Credits: 1  
In this course, the learner will become familiar with the basic features of the Microsoft Windows operating system. Competencies covered include: working with the Start button and taskbar, opening, closing, moving and resizing windows; and saving and managing files.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-112 Introduction to Microsoft Excel  
Credits: 1  
Using Microsoft Excel, students will learn the elements of a spreadsheet: worksheet capabilities (create, modify, enhance, save, print, and erase worksheets), and graphing capabilities (create graphs, bar charts, and pie charts).  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-114 Introduction to Internet Explorer  
Credits: 1  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-116 Introduction to Microsoft Word  
Credits: 1  
Learn to use Microsoft Word as a word processor to create documents such as reports, letters and research papers. Students create, edit, format and print a variety of business and school documents and become proficient with editing tools such as spelling and grammar checkers, Thesaurus, and AutoCorrect. Successful completion of Introduction to Microsoft Office (103-106) will be accepted in lieu of this course.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-117 Introduction to Microsoft Access  
Credits: 1  
This course introduces you to Microsoft Access. Access is a collection of one or more tables that can share information. It will include database applications, managing, retrieving, sorting and analyzing information to generate reports.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-120 Introduction to Microsoft PowerPoint  
Credits: 1  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

103-126 Introduction to QuickBooks  
Credits: 1  
This course is designed to provide the user with a basic level of proficiency in the popular Quickbooks software. Quickbooks is used to record business transactions and produce financial statements and various other reports for management. A working knowledge of Microsoft Windows and a basic knowledge of the accounting cycle are recommended.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing
103-127 Introduction to Computer Basics
Credits: 1

This class is an introductory course for those with little or no computer skills or for those who want to brush up on general computer proficiency. You will become familiar with MS Windows operating system, file management, MS Outlook and Internet Explorer. This class is highly recommended prior to taking Intro to MS Office Suites (103-106) or any other computer software courses.

Aid Code: 10 - Associate Degree.
Complete Course Listing

103-128 Introduction to Microsoft Office Suites
Credits: 2

This course will introduce students to the Microsoft Office Suite software and overview many of the core competencies of Word, Excel, and PowerPoint. Students will use technology for both problem-solving and decision-making and will be expected to use the resources available to search for answers to problems. Knowledge of creating and saving a document to a specific drive, opening and closing multiple applications, locating a website using the URL and sending or receiving an e-mail with an attachment, plus touch keyboarding skills are expected. If you are not proficient in these skills then Keyboarding 106-140 and Intro to Computer Basics 103-127 are highly recommended pre/corequisites for this course. These recommended pre/corequisites may also be taken concurrently with the Introduction to Microsoft Suites course. This course is taught using MS Office 2016. All assignments and assessments must be submitted using MS Office 2016.

Aid Code: 10 - Associate Degree.
Complete Course Listing

103-178 Advanced Microsoft Excel
Credits: 2

This course covers advanced features of Microsoft Excel such as what if analysis, input tables, spreadsheet consolidation, data tables and queries, object linking and embedding, filters and pivot tables, macros, Visual Basic for Applications, and charting features.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-105 or 103-107)
Complete Course Listing

103-195
Credits: 1

The basics of the Blackboard Learning Management System are covered in this course. Topics include customizing both the student and instructor views, creating, loading and editing content, user management, assessment options, creating assessments, managing the online grade book, Using discussion boards, tracking student activities, archiving, copying, exporting and importing content and site management, design and security. The project is this course is to begin using some of the Blackboard features for one or more of your online or face-to-face courses.

Aid Code: 10 - Associate Degree.
Complete Course Listing

103-196
Credits: 1

This course focuses on advanced features of the Blackboard Learning Management System. Topics include using the assignment feature, creating and using test pools, creating an effective assessment, making changes in the online grade center, using the adaptive release feature to individualize the course for students, customizing a course through use of the course settings and images, creating and deploying a survey and finding sources of learning objects and other materials to enhance a Blackboard course. The course also covers basic use of the plagiarism prevention solution adopted by the college. The project is this course is to begin using some of the advanced Blackboard features for one or more online or face-to-face course.

Aid Code: 10 - Associate Degree.
Complete Course Listing

103-197
Credits: 1

This course prepares the learner to incorporate the use of the Blackboard Content Collection into their course materials in Blackboard. The final assessment will require the learner to modify one of their Blackboard shells to use the Content Collection for storage of files instead of storing them locally in that course.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Criminal Justice (504)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

504-145 Spanish for Emergency Personnel
Credits: 3

This course is designed to enable students with minimal or no Spanish language skills to communicate effectively with Spanish speaking individuals. Designed for Law Enforcement, Fire and EMS students and professionals, the course presents basic conversational Spanish to apply in the field. This course includes interpretation in basic field interview, traffic investigations, medical emergencies, Identification of subjects, and preliminary investigations.

Aid Code: 10 - Associate Degree.
Complete Course Listing

504-301 Policing In America
Credits: 1

This course contains modules: Professional Orientation, Policing in a Free Society. Ethics, Policing in a Free Society, Community Resources, Cultural Competence and Agency Policy.

Aid Code: 30 - Short-term.
Complete Course Listing

504-302 The Legal Context
Credits: 2

This course contains modules: Crimes and Juvenile Law.

Aid Code: 30 - Short-term.
Complete Course Listing
504-303 Tactical Skills
Credits: 3
This course contains modules: DAAT, Firearms, Tactical Response and Hazardous Materials.
Aid Code: 30 - Short-term.
Complete Course Listing

504-304 Relational Skills
Credits: 3
This course contains modules: Report Writing, Professional Communication Skills, Crisis Management, Testifying in Court, Critical Thinking & Problem Solving and Policing Strategies.
Aid Code: 30 - Short-term.
Complete Course Listing

504-305 Patrol Procedures
Credits: 4
This course contains modules: Traffic Law Enforcement, Scene Management, EVOC, Vehicle Contacts, OMVWI/SFST, First Aid and CPR/AED.
Aid Code: 30 - Short-term.
Complete Course Listing

504-306 Investigations
Credits: 2
This course contains modules: Interview and Interrogation, Physical Evidence Collection, Victims, Domestics, Sexual Assault and Child Maltreatment.
Aid Code: 30 - Short-term.
Complete Course Listing

504-307
Credits: 1
Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase I topics of the Department of Justice 720 Academy curriculum framework: Ethics I: Moral Reasoning and Professional Responsibility, Cultural Competence I: Fair and Impartial Policing, Victims, Sexual Assault, Child Maltreatment, Interrogations, Testifying in Court, and Crimes I.
Aid Code: 30 - Short-term.
Complete Course Listing

504-308 Applications of Investigation
Credits: 2
Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Phase II topics of the Department of Justice 720 Academy curriculum framework: Ethics II: Moral Reasoning and Professional Responsibility, Cultural Competence II: Fair and Impartial Policing, Victims, Sexual Assault, Child Maltreatment, Interrogations, Testifying in Court, and Crimes II.
Aid Code: 30 - Short-term.
Complete Course Listing

504-309 Applications of Traffic Response
Credits: 2
Through classroom lecture, and on-campus lab, students will learn and apply skills addressed in the following Phase III topics from the WI Department of Justice 720 Academy curriculum framework: Traffic Law Enforcement - Core and Radar, Traffic Crash Investigations & Incident Management, Operating a Motor Vehicle While Intoxicated (OMVWI), Standardized Field Sobriety Tests (SFST), and Report Writing. A Phase II Written Examination will also be administered in this course.
Aid Code: 30 - Short-term.
Complete Course Listing

504-310 Health and Fitness
Credits: 1
Through classroom lecture and on-campus lab students will apply Phases I-III Health Fitness WI Department of Justice 720 Academy curriculum framework program requirements.
Aid Code: 30 - Short-term.
Complete Course Listing

504-311 Overview of Criminal Justice
Credits: 1
Through classroom lecture and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following WI Department of Justice 720 Academy Phase I curriculum framework topics: Academy Orientation, Fundamentals of Criminal Justice, Ethics, Cultural Competency, Agency Policy, and Professional Communication.
Aid Code: 30 - Short-term.
Complete Course Listing

504-312 Overview of Investigations
Credits: 2
Through classroom lecture, on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Constitutional Law I, Crimes I, Juvenile Law I, Interviews, Report Writing, and Physical Evidence.
Aid Code: 30 - Short-term.
Complete Course Listing

504-313 Overview of patrol Response
Credits: 2
Through classroom lecture, and on-campus lab, and WI Department of Justice integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase I topics: Critical Thinking and Decision-Making, Basic Response (RESPOND), Radio Procedures, Introduction to TraCS, Traffic Law Enforcement, and First Aid/CPR/AED. This course will also include the WI DOJ 720 Academy Integration Exercises.
Aid Code: 30 - Short-term.
Complete Course Listing
504-314 Overview of Tactics
Credits: 1

Through classroom lecture, and on-campus lab and WI Department of Justice 720 Academy integration exercises, students will learn and apply skills addressed in the following Department of Justice 720 Academy curriculum framework Phase I topics: Fundamentals of Firearms, Vehicle Contacts I, Officer Wellness, and DAAT. The DOJ Phase I Written Examination will be administered in this course.

Aid Code: 30 - Short-term.
Complete Course Listing

504-315 Principle of Emergency Vehicle Response
Credits: 2

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following Department of Justice 720 Academy Phase II topics: Emergency Vehicle Operation and Control (EVOC) and Vehicle Contacts II.

Aid Code: 30 - Short-term.
Complete Course Listing

504-316 Principles of Investigation
Credits: 2

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework: Constitutional Law II, Crimes II, Domestics, and Report Writing.

Aid Code: 30 - Short-term.
Complete Course Listing

504-317 Principles of Patrol Response
Credits: 2

Through classroom lecture, and on-campus lab, and WI Department of Justice 720 Academy integration exercises students will learn and apply skills addressed in the following WI Department of Justice 720 Academy curriculum framework Phase II topics: Professional Communication Skills II, Incident Command Systems and NIMS, Hazardous Materials and WMD, Tactical Response, Crisis Management, and Tactical Emergency Casualty Care.

Aid Code: 30 - Short-term.
Complete Course Listing

504-318 Principles of Tactics
Credits: 3

Through classroom lecture and on-campus lab students will learn and apply skills addressed in the following Phase II topics from the Department of Justice 720 Academy curriculum frameworks: DAAT and Firearms II. The Phase II Written Examination will be administered during this course.

Aid Code: 30 - Short-term.
Complete Course Listing

504-905
Credits: 3

In this course, the learner will explain the context of report writing, take effective field notes, organize information in reports, write narratives, describe what information should be included in certain types of reports, prepare for court, describe how to be an effective witness, and testify as a witness in court.

Aid Code: 10 - Associate Degree.
Pre-requisites: (504-900 or 504-100) and (504-903 or 504-118) and (504-902 or 504-121) and (504-901 or 504-136) and (801-195 or 801-136)
Complete Course Listing

504-907
Credits: 3

In this course, the learner will identify community resources available in your area, describe the role of an advocacy group in the criminal justice community, explain the rewards and challenges that diversity brings to and causes in society, evaluate communication barriers in dealing with the public, respond to hate crimes, identify the types of situations and the characteristics of individuals that are likely to be encountered in crisis management situations, apply Wisconsin statutory requirements and general guidelines regarding emergency detentions and emergency protective placements of persons, identify key concepts and elements associated with law enforcement response to people in crisis, apply crisis intervention principles and techniques, articulate the decision-making process taken to manage persons in crisis, describe community-oriented policing, describe problem-oriented policing, describe other policing strategies, and apply principles of crime prevention.

Aid Code: 10 - Associate Degree.
Complete Course Listing

504-910
Credits: 3

A multidisciplinary study of corrections from the early 1800’s to the present. The course provides an overview of significant studies relating to the role of corrections and the methods of community treatment. The course also includes a thorough analysis of current model and practices in the correctional field. This course focuses on the roles of corrections of offenders and society. It starts with a historical and philosophical view of the development of corrections (post-adjudication processing of criminal offenders) focusing on adult offenders. Later topics include administrative and operational components of corrections, criminals in confinement, post-adjudication procedures and problems, and community corrections.

Aid Code: 10 - Associate Degree.
Complete Course Listing

504-911 Peacekeeping in a Diverse Society
Credits: 3

This course examines current issues related to the administration of justice in a culturally diverse society. Special focus of this course will be on the changing ethnicity of communities and related changes in social and institutional public policy. Also discussed is cross cultural communication, implementing cultural awareness training, multicultural representation in law enforcement, and criminal justice interaction with various racial and ethnic groups.

Aid Code: 10 - Associate Degree.
Complete Course Listing
504-915
Credits: 3
This course is designed to review the various functions and current issues related to various components of the criminal justice system.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-916
Credits: 3
This course involves professionally planned and supervised program of experience in one of several criminal justice related occupational areas.
Aid Code: 10 - Associate Degree.
Pre-requisites: Need Dean Approval
Complete Course Listing

504-917
Credits: 3
This elective course involves criminal justice students providing basic security service on campus to assist in providing a safe campus environment.
Aid Code: 10 - Associate Degree.
Pre-requisites: Need Dean Approval
Complete Course Listing

504-918
Credits: 1
This one credit elective course focuses on the exploration of personal professional goal setting and exploring the many career paths available in criminal justice system. Students will develop a personal career development plan to help guide them in attaining their personal and professional goals.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-919
Credits: 1
The course focuses on the importance of fitness and nutrition as it relates not only to the criminal justice profession but also to the individual’s overall wellness. Also explored are the common physical agility testing requirements many departments use in the hiring process. Students will develop an overall wellness/fitness plan.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-920 Emergency Dispatch
Credits: 3
This course covers the topics found in the Emergency Telecommunicator Course developed by National Academies of Emergency Dispatch (NAED). It is designed to train students in the following: Emergency telecommunication technologies, caller management, legal aspects of public safety, radio broadcast procedures, medical, police and fire call classification. The course also incorporates Basic and Mobile Certification Training (BMCT). This training provides telecommunications students the skills to interpret and explain TIME system reports. These reports are generated by the state Department of Transportation (DOT), Crime Information Bureau (CIB) and National Crime Information Center (NCIC). The training will explain and illustrate to students how to perform queries from these agencies, interpret the information and relay it back to the emergency responder. After completing this course the student will complete examinations in both NAED and BMCT for certification through both agencies.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-921 Drugs, Society, Criminal Justice
Credits: 3
This course examines the social origins and consequences of the use and abuse of consciousness-altering substances (including alcohol). It considers how society defines and deals with drug use and assesses social harm, including such issues as addictions and health effects, drugs and crime, the legislation debate, and drug policy and enforcement.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-922 The Criminal Justice System
Credits: 3
This introductory course is an in-depth exploration of each step of the criminal justice process from investigation through adjudication. Also explored is the history, primary functions and jurisdictions of law enforcement agencies. The levels and functions of the court systems in America are distinguished. The role of belief systems, social systems, moral problems, and diversity and ethical decision making are discussed.
Aid Code: 10 - Associate Degree.
Complete Course Listing

504-923 Criminal Procedure
Credits: 3
This course explores the history and development of criminal procedural law with the Bill of Rights as the foundation. Students will analyze constitutional procedures for detention/arrest, search & seizure, and legally obtained statements by examining related court decisions.
Aid Code: 10 - Associate Degree.
Complete Course Listing
504-924 Substantive Criminal Law  
Credits: 3  
This course discusses the creation and application of substantive criminal law. Includes the nature and origins of criminal law, elements of criminal liability, the doctrine of complicity, uncompleted crimes, defenses to criminal liability, and the elements of crimes against persons, habitation, property and public order.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

504-925 Interview and Interrogation  
Credits: 3  
This course familiarizes the student with the various components of everyday professional communication as well as effective interviewing of victims, witnesses, and suspects.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

504-926 Juvenile Justice System  
Credits: 3  
In this course, learners will describe ways in which the juvenile justice system fits into the criminal justice system (Law Enforcement, Court, Corrections) as a whole. Historical perspectives, theories of delinquency, application of best practices, and current trends will be discussed and applied throughout this course.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

504-927 Introductory Report Writing  
Credits: 3  
This course is designed to supply the student with a working knowledge of the purposes and the acceptable principles of criminal justice report writing. Attention is given to the improvement of spelling, sentence structure, punctuation, and vocabulary. Emphasis is placed on the report narrative as a powerful investigative tool and its position in the criminal justice system.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (801-195 or 801-136)  
Complete Course Listing

504-928 Criminal Investigation Strategies  
Credits: 3  
Students will be exposed to common investigative strategies for the initial responding officer when handling crimes related to domestic violence, sexual assault, death, and crimes against children. Effectively dealing with victims of crime is also emphasized.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

504-929 Policing and Crime Prevention  
Credits: 3  
This course will examine the role and effectiveness of the police in controlling crime in our communities. We will explore the theoretical relationship between communities and crime and we will examine the relative effectiveness of community policing, problem-oriented policing, and various street-level approaches to crime prevention and crime control.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

504-938  
Credits: 3  
Students learn and incorporate knowledge, skills and attitudes necessary for effective police field services. The course addresses effective communication on the street, methods of enforcement and statutes related to traffic law enforcement, responding to crimes in progress, and initial responsibilities of patrol officers.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Criminal Justice-Law Enforce, Criminal Justice Studies Programs.  
Complete Course Listing

504-939  
Credits: 3  
In this course learners will understand and describe how juvenile offenders depend on their families and community resources in order to lead a crime free lifestyle. Historical perspectives, theories on delinquency, application of best practices, and current trends will be discussed and applied throughout this course.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Criminal Justice-Law Enforce, Criminal Justice Studies Programs.  
Complete Course Listing

504-940  
Credits: 3  
In this course, students will learn all aspects of voluntary and court ordered placements of juvenile offenders in residential, detention and correctional facilities. Staffing, operations and politics of both public and private agencies will be discussed, focusing on treatment versus punishment and detention issues.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Criminal Justice-Law Enforce, Criminal Justice Studies Programs.  
Complete Course Listing
504-941
Credits: 3

This course will provide an overview of the history and philosophy of probation and parole. Also included is the organization and operation of probation and parole agencies as particular segments of the criminal justice system. A review and evaluation of the state of our prisons and their relationship to probation and, particularly, parole is included. The various roles of probation and parole officers and a review of community corrections in managing offender treatment, rehabilitation and reintegration are covered in this course.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Criminal Justice-Law Enforce, Criminal Justice Studies Programs.
Complete Course Listing

504-942
Credits: 3

This course consists of field experience in one of several juvenile correctional environments that could involve group homes, juvenile diversion, secure detention or a combination thereof.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Criminal Justice-Law Enforce, Criminal Justice Studies Programs.
Pre-requisites: (504-931) and (504-932)
Co-requisites: (504-933) or (504-912) or (504-119)
Complete Course Listing

Culinary Arts (316)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

316-103 Food Service Industry and Menu Design
Credits: 2

An introduction to the Food Service industry, past and present, with an overview of all types of food service. Several facility tours are included. Menu terminology is stressed, and an actual working menu will be developed by each student.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Co-requisites: (316-147)
Complete Course Listing

316-104 Food Quantities and Measures
Credits: 1

Study of standardized recipes, equivalents, abbreviations, weights and measures, food presentations, and appropriate substitutions. The technical aspects extending and reducing recipes and menu costing will also be a component.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Complete Course Listing

316-105
Credits: 2

BTC instructors will coordinate an advanced culinary lab experience with employers in approved culinary positions. Students will spend 144 hours further developing their culinary knowledge and skills by working at a selected site. Evaluation of a student's work will be influenced by the satisfaction expressed by employer who provides the externship experience.

Aid Code: 10 - Associate Degree.
Complete Course Listing

316-106
Credits: 3

BTC instructors will coordinate an advanced culinary lab experience with employers in approved culinary positions. Students will spend 216 hours further developing their culinary knowledge and skills by working at a selected site. Evaluation of a student's work will be influenced by the satisfaction expressed by employer who provides the externship experience.

Aid Code: 10 - Associate Degree.
Complete Course Listing

316-107 Culinary Internship
Credits: 1

BTC instructors will coordinate an extended culinary lab experience with employers in approved culinary positions. Students will spend 54 hours further developing their culinary knowledge and skills by working at a selected site. Evaluation of a student's work will be influenced by the satisfaction expressed by employer who provides the externship experience.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-108) and (316-114) and (316-147)
Co-requisites: (316-164)
Complete Course Listing

316-108 Food Science I
Credits: 3

An overview of the sciences involved in cooking and preparing food. The science involved with fruits, vegetables, eggs, cheese, meats, and meat cutting, fish, seafood, and baking will be discussed, demonstrated and experienced.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Co-requisites: 316-147
Complete Course Listing
316-109 Quantity Production of Soups, Salads, and Dressings
Credits: 4

Included in this course is a study of the fundamentals and principles of preparing all types of soups, salads, and dressings and an understanding of the ingredients and terminology used in the quantity production of soups, salads, and salad dressings. The student will develop competence in production of soups, salads, garnishes, and salad dressings to meet industry standards.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Co-requisites: (316-104) and (316-108) and (316-147)
Complete Course Listing

316-114 Quantity Production of Entrees, Sauces and Vegetables
Credits: 4

This course includes a study of the fundamentals and principles of preparing all types of entrees, sauces, and vegetables. The student will gain a working knowledge of terminology and ingredients used in quantity production of these foods. The student will develop a competence in the production of entrees, sauces, and vegetables to meet industry standards. Included in this class is a culinary related community involvement project termed “Go Serve, Go Green, Go Lead”.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-104) and (316-108)
Complete Course Listing

316-115 Nutrition
Credits: 2

This course is geared for the culinary field. Students will study and practice nutritional principals while evaluating and modifying menus and recipes. Students will also learn the importance of nutritive elements and the affect to the human body.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-104) and (316-147)
Complete Course Listing

316-119 Baking For Chefs
Credits: 3

Baking production from simple to artistic and complex will be taught, demonstrated to, and later produced by culinary students. Fundamentals and principals of baking are included with the production of yeast products, cakes, pies, cookies, and quick breads. Also included is the proper use and care of baking equipment. Competence in bakery production must meet industry standards.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-108) and (316-147) and (316-104)
Complete Course Listing

316-125 Beverage Management
Credits: 1

Beverage Management includes history, geography, and marketing as well as responsible beverage service, cost control, and the study of bar set-up and management. A review of equipment use and care, current products available, production standards, and merchandising principles is also included.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Complete Course Listing

316-131 Advanced Cuisine
Credits: 2

This course includes the study of franchising, specialty breakfast and lunch items, sandwich preparation, marketing of food and increased sales. Students will prepare Tapas and "quick courses? utilizing a la minute cooking techniques.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Co-requisites: 316-114
Complete Course Listing

316-136 Catering, Special Events and Contract Food Service
Credits: 2

This course includes a study of all special facets of Food Service, analysis of challenges special to each one, organizing and managing the catering process, needs of specific segments of the population (i.e., elderly, children), government regulations for funded/reimbursed food service, satellite food service for central production area and banquet production.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-104) and (316-114) and (316-147) and (316-103)
Complete Course Listing

316-142 Ice Sculpturing and Decorative Food Display
Credits: 2

This course allows students to develop competence in ice sculpturing, designing and producing decorative items for food service and special events, applying aspic, and creating, arranging, and preserving food displays.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Pre-requisites: (316-114) and (316-119)
Co-requisites: (316-160) and (316-165)
Complete Course Listing

316-147 Food Service Sanitation
Credits: 2

This course includes a complete study of food service sanitation, safe food handling practices, high standards of personal health and hygiene and sanitation regulations and enforcement. ServSafe certification is a nationally recognized credential offered at the completion of the course and is required for program advancement.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Culinary Arts Program.
Complete Course Listing
316-149 Culinary Supervision  
**Credits:** 3  
This course is designed to give the student an overview of supervision in a culinary setting. Included are leadership and supervision skills, interpersonal skills, motivation, communication, decision-making and training at the first-line supervision level. The duties and responsibilities of supervisors and the role of supervision in a culinary setting and making the transition to supervision are also included.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Culinary Arts Program.  
Complete Course Listing

316-159 Food Purchasing, Inventory and Cost Control  
**Credits:** 2  
The basic principles of food purchasing and purchasing procedures, including all foods and usual marketing forms. Also included will be procedures for inventory control, including the use of the computer, guidelines for selecting orders, procedures for receiving orders, basic storage principles, and accurate cost computations on a per order basis as well as a per serving basis.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Culinary Arts Program.  
**Co-requisites:** (102-139)  
Complete Course Listing

316-160 Contemporary Stocks and Sauces  
**Credits:** 3  
A concise study of mother sauces and their derivatives along with sauce history, making stocks for the specialty kitchen, and dessert sauces are covered.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Culinary Arts Program.  
**Pre-requisites:** (316-107) and (316-114) and (316-119) and (316-164)  
**Co-requisites:** (316-142) and (316-165)  
Complete Course Listing

316-164 Global Cuisine  
**Credits:** 2  
Global Cuisine is a study of Regional, International, and Contemporary cuisine. The learner will gain and demonstrate working industry knowledge of terminology and specialized ingredients used in contemporary cuisine.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Culinary Arts Program.  
**Pre-requisites:** (316-108) and (316-114) and (316-147)  
**Co-requisites:** (316-107)  
Complete Course Listing

316-165 Gourmet Foods  
**Credits:** 3  
Gourmet Foods are foods at their finest. Students will learn food terminology, the specialized methods of preparation and serving techniques associated with gourmet dining. A variety of gourmet appetizers, soups, salads, entrees, desserts, and beverages are prepared and served.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Culinary Arts Program.  
**Pre-requisites:** (316-107) and (316-114) and (316-119) and (316-164)  
**Co-requisites:** (316-142) and (316-160)  
Complete Course Listing

Dental (508)  
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

508-101 Dental Health Safety  
**Credits:** 1  
Prepares dental auxiliary students to respond proactively to dental emergencies, control infection, prevent disease, adhere to OSHA Standards, and safely manage hazardous materials. Students also take patient vital signs and collect patient medical/dental histories. CPR certification is a prerequisite; students will be required to show proof of certification before the beginning the course.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Advanced Dental Assistant Program.  
**Pre-requisites:** (Background Check, P or Background Check, N)  
**Co-requisites:** (508-103) and (508-113) and (508-302) and (508-304) and (508-306) and (508-307)  
Complete Course Listing

508-103 Dental Radiography  
**Credits:** 2  
Prepares dental auxiliary students to operate x-ray units and expose bitewing, periapical, extra oral, and occlusal radiographs. Emphasis is placed on protection against xray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient.  
**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Advanced Dental Assistant Program.  
**Pre-requisites:** (Background Check, P or Background Check, N)  
**Co-requisites:** (508-101) and (508-113) and (508-302) and (508-304) and (508-306) and (508-307)  
Complete Course Listing
508-113 Dental Materials
Credits: 2
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.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Advanced Dental Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (508-101) and (508-103) and (508-302) and (508-304) and (508-306) and (508-307)
Complete Course Listing

508-120 Dental Office Management
Credits: 2
Prepares dental auxiliary students to manage telephones, appointments, recall systems, and inventory. Students also develop the skills needed to process accounts receivable and payable, collections and third party reimbursements.
Aid Code: 10 - Associate Degree.
Pre-requisites: (508-307)
Co-requisites: (508-308) and (508-309) and (508-310) and (508-311)
Complete Course Listing

508-302 Dental Chairside
Credits: 5
Prepares dental assistant students to chart oral cavity structures, dental pathology, and restorations and to assist a dentist with basic dental procedures including examinations, pain control, amalgam restoration and cosmetic restoration. Students will also develop the ability to educate patients about preventive dentistry, brushing and flossing techniques, and dental procedures, using lay terminology. Throughout the course, students will apply decoding strategies to the correct use and interpretation of dental terminology.
Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Advanced Dental Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (508-101) and (508-103) and (508-113) and (508-304) and (508-306) and (508-307)
Complete Course Listing

508-304 Dental & General Anatomy
Credits: 2
Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients.
Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Advanced Dental Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (508-101) and (508-103) and (508-113) and (508-302) and (508-306) and (508-307)
Complete Course Listing

508-306 Dental Assistant Clinical
Credits: 3
Students apply skills developed in Dental and General Anatomy, Dental Health Safety, Dental Chairside, Dental Materials, Dental Radiography, and professionalism in a clinical setting with patients. Emphasizes integration of core abilities and basic occupational skills.
Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Advanced Dental Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (508-101) and (508-103) and (508-113) and (508-302) and (508-304) and (508-307)
Complete Course Listing

508-307 Dental Assistant Professionalism
Credits: 1
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 ethical guidelines and legal frameworks. In preparation for entering the work force, dental assistants customize or develop their portfolios and lay out an on-going professional development plan.
Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Advanced Dental Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (508-101) and (508-103) and (508-113) and (508-302) and (508-304) and (508-306)
Complete Course Listing

508-308 Dental Chairside Advanced
Credits: 5
Prepares dental assistant students to adapt chairside skills to assisting with dental specialties as they are performed in general practice. Focuses on pediatric dentistry, orthodontics, oral maxillofacial surgery, endodontics, periodontic, and prosthetics. Students will also develop the ability to assist with sealants, perform coronal polishing, and apply topical fluoride and topical anesthetics.
Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (508-307)
Co-requisites: (508-120) and (508-309) and (508-310) and (508-311)
Complete Course Listing

508-309 Dental Laboratory Procedures
Credits: 4
Prepares Dental Assistant students to produce alginate impressions and fabricate diagnostic models, oral appliances, temporary restorations, and custom trays. Students also polish oral appliances.
Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (508-307)
Co-requisites: (508-120) and (508-308) and (508-310) and (508-311)
Complete Course Listing
508-310 Dental Radiography - Advanced
Credits: 1

Builds on principles and skills developed in Dental Radiography. Dental Assisting students expose full mouth series, and specialized radiographs on adult and child patients. Emphasis is placed on protection against x-ray hazards. Students will also process, mount, and evaluate radiographs for diagnostic value. In addition, they will use radiographs to explain dental health and treatment plans to patients.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (508-307)
Co-requisites: (508-120) and (508-308) and (508-309) and (508-311)

508-311 Dental Assistant Clinical Advanced
Credits: 2

Dental Assisting students apply skills developed in Dental Chairside-Advanced, Dental Lab Procedures, Dental Radiography-Advanced, and Dental Office Procedures in a clinical setting with patients. Emphasizes integration of core abilities and basic and advanced occupational skills.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (508-307)
Co-requisites: (508-120) and (508-308) and (508-309) and (508-310)

Diesel Heavy Equipment I (070)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

070-308 Engine Fundamentals
Credits: 4

In this course, learners will explore the basic workings of diesel engine systems. Learners will engage in removing the cooling, intake, and exhaust systems of diesel engines in order to better understand their function in keeping a diesel engine running at peak performance. Learners will be able to identify multiple points in a diesel engine and connect their working efficiency to EPA regulations.

Co-requisites: (412-305)

070-318 Drive Train Service
Credits: 4

This course introduces the learner to standard hydrostatic and power transmission driveline systems. Learners will engage in repairing automatic and standard transmissions, drive shafts, u-joints, differential equalizers, and differential assemblies. Learners will be able to perform maintenance and repairs per OEM/NATEF standards to several driveline systems that are found within the current diesel trucking industry.


070-319 Principles of Heating, Cooling, and Air Conditioning
Credits: 3

This course focuses on the theory, operation, and troubleshooting of heating, cooling, and air conditioning systems in the diesel trucking industry. Learners examine system identification, diagnostic testing, and maintenance required per OEM/NATEF/EPA standards. Knowledge gained in this course will give the learner the ability to safely test and repair heating and air conditioning systems per OEM/EPA requirements within the diesel industry.


070-340 Hydraulics 1
Credits: 2

This course introduces the learner to basic hydraulic and pneumatic theory. Learners will examine hydraulic and pneumatic fundamentals, symbols, schematics, and operations. Learners will apply these fundamentals to earth moving machines, implements, and other diesel equipment.


070-341 Electrical Fundamentals
Credits: 4

This course introduces the learner to the theory, operation, and function of electricity as it applies to the diesel industry. Learners will read schematics, wiring diagrams, basic functions of a DVOM as well as test batteries, charging systems and learn basic voltage drop theory. Within lab settings, learners will be able to use their knowledge to test electrical circuit boards, starting and charging systems, and lighting circuits.

Co-requisites: (412-342) and (806-315)

070-342 Hydraulics 2
Credits: 2

This course is an extension of Hydraulics 1 and will focus on the learner's ability to perform tests, servicing, adjustment, and repair of hydraulic system actuators and hydraulic systems. Learners will be able to perform system tests and repairs on hydrostatic transmissions, earth moving machines, and other current diesel implement hydraulic systems per OEM/NATEF standards.

Co-requisites: (070-340)

Diesel Heavy Equipment II (412)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
412-304 Diesel Fuel Systems  
Credits: 4  
This course focuses on diesel fuel system designs and principles. Learners will analyze the basics of diesel fuel system injection pumps, injectors, and injections system operation, as well as the maintenance and troubleshooting of electronic fuel systems per OEM/NATEF standards. Learners will be able to perform diagnostic service and repairs on current medium and heavy diesel engine fuel systems within the trucking industry.  
Complete Course Listing

412-305 Advanced Safety Procedures  
Credits: 1  
This course will focus on OSHA, and safety within a shop setting. Learners will work towards and receive a certificate for crane training per OSHA training requirements. Knowledge gained will give the learner the ability to operate a crane and to work safely within a diesel shop as well as other diesel industry environments.  
Complete Course Listing

412-306 Diesel Engine Service Repair I  
Credits: 3  
This course is a continuation of the Engine Fundamentals course. Learners will apply their knowledge of diesel engine parts and functions to perform emissions tests (intakes and exhaust sensors) as well as troubleshoot electrical system issues. Learners will be able to perform these diagnostics to the level of EPA regulations and standards.  
Co-requisites: (070-308)  
Complete Course Listing

412-307 Diesel Engine Service Repair II  
Credits: 3  
This course is a continuation of Diesel Engine Service Repair I. Learners will breakdown and put together complete diesel engine systems, applying knowledge of external parts and functions, while paying close attention to the internal parts and functions. Learners will be able to perform diagnostics on all systems combined, ensuring that intake and exhaust systems meet EPA standards and entire engine systems are rebuilt to full working capacity.  
Co-requisites: (070-308)  
Complete Course Listing

412-308 NATEF Certification Review  
Credits: 1  
Applying the NATEF standards practiced throughout this program, this course is designed to prepare the learner for future ASE certifications while practicing in the field as a Diesel Technician.  
Pre-requisites: (412-349)  
Complete Course Listing

412-310 Brake Service Fundamentals  
Credits: 4  
This course introduces the learner to current trucking industry braking systems. Using OEM/NATEF standards, learners perform diagnosis, service and repairs on air, hydraulic, manual, and electric parking brakes as well as antilock braking systems that include wheel-end procedures. Learners apply the fundamentals of braking systems to perform proper diagnostics and repairs to current diesel vehicles.  
Complete Course Listing

412-311 Truck Steering & Suspension  
Credits: 4  
This course focuses on the multiple steering and suspension systems used on current medium and heavy duty diesel vehicles. Using OEM/NATEF standards and specifications, students engage in proper inspection and repairs on leaf spring, solid rubber, air ride, torsion bar suspension, and power steering as well as manual steering units. Learners will be able to perform electronic alignment procedures and repair suspension as well as steering problems commonly found within the diesel trucking industry.  
Complete Course Listing

412-342 Electrical Systems Troubleshooting  
Credits: 4  
This course develops the learners' electrical troubleshooting skills. Learners analyze testing techniques for advanced electrical circuits using DVOM's and scan tools, and interpret results using OEM/NATEF standards. The learner will be able to perform advanced electrical diagnostics and repairs on current diesel vehicle electrical systems.  
Co-requisites: (070-341)  
Complete Course Listing

412-347 Inspection & Maintenance Procedures  
Credits: 4  
This course focuses on performing state and federal Motor Vehicle Safety inspections to appropriate Department of Transportation (DOT) standards. Learners explore multiple system component identification, inspection procedures, maintenance procedures per OEM/NATEF, and DOT standards. Learners will be able to apply knowledge of current state and federal documentation, and inspection procedures, understanding the importance of these inspections and documents when entering the diesel industry.  
Pre-requisites: (412-349)  
Complete Course Listing
412-349 Equipment Welding
Credits: 2

This course introduces the learner to the basic field of metals. Learner will engage in Shielded Metal Arc Welding (SMAW), Oxy-Fuel Cutting (OFC), and Gas Tungsten Arc Welding (GTAW). The learner will be able to perform the aforementioned basic welding techniques used in the diesel industry.

Complete Course Listing

Early Childhood Education (307)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

307-100 ECE: Preschool Capstone
Credits: 3

The capstone is the last course all students take prior to completing the Preschool Credential. The intent of this capstone course is to cover and revisit some important themes from the prior five courses. The students will synthesize the information and demonstrate mastery of the competencies through the completion of a portfolio.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-108 ECE: Early Language & Literacy
Credits: 3

This course explores strategies to encourage the development of early language and literacy knowledge and skill building in children birth to 8 years of age. Learners will investigate the components of literacy including, literacy and a source of enjoyment, vocabulary and oral language, phonological awareness, knowledge of print, letters and words, comprehension and an understanding of books and other texts. Theories and philosophies regarding children’s language and literacy development will be addressed. Dual language learning will be examined within the context of developmentally appropriate practices. Assessment tools for early language and literacy acquisition will be reviewed.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-110 ECE: Social Studies, Art & Music
Credits: 3

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of social studies, art, music, & movement (SSAMM).

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-112 ECE: STEM
Credits: 2

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-117 ECE: Credit for Prior Learning
Credits: 3

This 3-credit course examines early childhood professional experience for the purpose of receiving credit for prior learning. Course competencies include: access needed support services on campus & online: analyze professionalism in the early childhood field; identify core-abilities; identify what a competency is within a course; examine the courses and outcomes of the WTCS Early Childhood Education program; analyze performance assessment; compare professional experience with early childhood competencies; compile materials for performance assessment of course(s); determine plan of action for program completion.

Aid Code: 10 - Associate Degree.
Pre-requisites: Need Dean Approval
Complete Course Listing

307-131 ECE: STEM
Credits: 3

This 3-credit course will focus on beginning level curriculum development in the specific integrated content areas of science, technology, engineering and mathematics.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-147 Infant Toddler Credential Capstone
Credits: 3

This course integrates the theory, practice, and reflection of the other courses in the Infant Toddler Credential Certificate and requires demonstration of best practices.

Aid Code: 10 - Associate Degree.
Pre-requisites: (307-102) and (307-151 or 307-101) and (307-195 or 307-105)
Complete Course Listing

307-148 ECE: Foundations of Early Childhood Education
Credits: 3

This 3-credit course introduces you to the early childhood profession. Course competencies include: integrate strategies that support diversity and anti-bias perspectives, investigate the history of early childhood education, examine regulatory requirements for early childhood education programs in WI, summarize types of early childhood education settings, identify the components of a quality early childhood education program, summarize responsibilities of early childhood education professionals, explore early childhood curriculum models.

Aid Code: 10 - Associate Degree.
Complete Course Listing
307-151 ECE: Infant & Toddler Development
Credits: 3

In this 3-credit course you will study infant and toddler development as it applies to an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze development of infants and toddlers (conception to three years); correlate prenatal and postnatal conditions with development; summarize child development theories; analyze the role of heredity and the environment; examine culturally and developmentally appropriate environments for infants and toddlers, examine the role of brain development in early learning (conception through age three); examine caregiving routines as curriculum.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-152 Wisconsin Model Early Learning Standards
Credits: 1

The Wisconsin Model Early Learning Standards specify developmental expectations for children from birth through entrance to first grade. The standards reflect attention to all the domains of a child’s learning and development. Each domain is divided into sub-domains. Each sub-domain includes developmental expectations, program standards, performance standards and developmental continuum. Samples of children’s behavior and adult strategies are also provided.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-166 ECE: Curriculum Planning
Credits: 3

This 3-credit course examines the components of curriculum planning in early childhood education. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play; establish a developmentally appropriate environment; integrate Developmentally Appropriate Practice (DAP) into curriculum; develop activity plans that promote child development and learning; develop curriculum plans that promote child development and learning across all content areas; analyze early childhood curriculum models.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-167 ECE: Health, Safety, and Nutrition
Credits: 3

This 3-credit course examines the topics of health, safety, and nutrition within the context of the early childhood educational setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; follow governmental regulations and professional standards as they apply to health, safety, and nutrition; plan a safe early childhood environment; plan a healthy early childhood environment; plan nutritionally sound menus; examine Child Abuse and Neglect (CAN) issues and mandates; apply Sudden Infant Death Syndrome (SIDS) risk reduction strategies, apply strategies to prevent the occurrence of Shaken Baby Syndrome (SBS); incorporate health, safety, and nutrition concepts into the children’s curriculum.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-174 ECE: Introductory Practicum
Credits: 3

In this 3-credit practicum course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: document children’s behavior; explore the standards for quality early childhood education; explore strategies that support diversity and anti-bias perspectives; implement activities developed by the co-op teacher/instructor/student; demonstrate professional behaviors; practice caregiving routines as curriculum; practice positive interpersonal skills with children and adults; analyze how WI Early Learning Standards provide a framework of guiding principles, developmental expectations, and program and performance standards to delineate the five developmental domains that embody delivery of quality education and care to young children; incorporate WI Early Learning Standards with the principles of developmentally appropriate practice, intentionality and the teaching cycle to examine child development; evaluate program integration of WI Early Learning Standards into the teaching cycle of Ongoing assessment, Planning and curriculum goals, and Implementation; identify specific goals and learning and assessment activities to promote the development of a focus child utilizing the WI Early Learning Standards; develop a plan for child learning utilizing the performance standards, developmental continuum and developmental domains from the WI Model Early Learning Standards that is based on experiential learning.

Aid Code: 10 - Associate Degree.
Co-requisites: (307-148) and (307-151) and (307-167)
Complete Course Listing

307-175 ECE: Preschool Practicum
Credits: 3

In this 3-credit course you will be implementing regulations and standards for quality early childhood education, applying knowledge of child development and positive guidance, utilizing observation and assessment techniques, and assessing developmentally appropriate environments for children.

Aid Code: 10 - Associate Degree.
Pre-requisites: (307-177)
Co-requisites: (307-187) and (307-112)
Complete Course Listing

307-177 ECE: Intermediate Practicum
Credits: 3

In this 3-credit course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: document children’s behavior; explore the standards for quality early childhood education; explore strategies that support diversity and anti-bias perspectives; implement activities developed by the co-op teacher/instructor/student; demonstrate professional behaviors; practice caregiving routines as curriculum; practice positive interpersonal skills with children and adults; analyze how WI Early Learning Standards provide a framework of guiding principles, developmental expectations, and program and performance standards to delineate the five developmental domains that embody delivery of quality education and care to young children; incorporate WI Early Learning Standards with the principles of developmentally appropriate practice, intentionality and the teaching cycle to examine child development; evaluate program integration of WI Early Learning Standards into the teaching cycle of Ongoing assessment, Planning and curriculum goals, and Implementation; identify specific goals and learning and assessment activities to promote the development of a focus child utilizing the WI Early Learning Standards; develop a plan for child learning utilizing the performance standards, developmental continuum and developmental domains from the WI Model Early Learning Standards that is based on experiential learning.

Aid Code: 10 - Associate Degree.
Co-requisites: (307-179) and (307-188) and (307-108) and (307-110)
Complete Course Listing
307-178 ECE: Art Music & Language Arts  

Credits: 3

This 3-credit course will focus on beginning level curriculum development in the specific content areas of art, music, and language arts. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play as it relates to art, music, and language arts; establish a developmentally appropriate environment for art, music, and language arts; develop activity plans that promote child development and learning; analyze positive interpersonal skills with children; utilize positive interpersonal skills with adults.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-179 ECE: Child Development  

Credits: 3

This 3-credit course examines child development within the context of the early childhood education setting. Course competencies include: analyze social, cultural, and economic influences on child development; summarize child development theories; analyze development of children age three through age eight; summarize the methods and designs of child development research; analyze the role of heredity and the environment; examine the role of brain development in early learning (ages 3-8).

Aid Code: 10 - Associate Degree.
Co-requisites: 307-151
Complete Course Listing

307-187 ECE: Children with Differing Abilities  

Credits: 3

This 3-credit course focuses on the child with differing abilities in an early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; provide inclusive programs for young children; apply legal and ethical requirements including, but not limited to, ADA and IDEA; work collaboratively through the consultation process to embed intervention in natural based settings; differentiate between typical and exceptional development; analyze the differing abilities of children with physical, cognitive, health/medical, communication, and/or behavioral/emotional disorders; work collaboratively with community and professional resources; utilize an individual educational plan (IEP/IFSP) for children with developmental differences; adapt curriculum to meet the needs of children with developmental differences; cultivate partnerships with families who have children with developmental differences.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-188 ECE: Guiding Children's Behavior  

Credits: 3

This 3-credit course examines positive strategies to guide children's behavior in the early childhood education setting. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; summarize early childhood guidance principles; analyze factors that affect the behavior of children; practice positive guidance strategies; develop guidance strategies to meet individual needs; create a guidance philosophy. This course meets the requirements for the Pyramid Model training.

Aid Code: 10 - Associate Degree.
Complete Course Listing

307-190 ECE: Preschool Capstone  

Credits: 3

The capstone is the last course all students take prior to completing the Preschool Credential. The intent of this capstone course is for students to synthesize the information learned in the prior five courses and to demonstrate mastery of the competencies through the completion of a portfolio.

Aid Code: 10 - Associate Degree.
Pre-requisites: (307-148) and (307-167) and (307-179) and (307-178) and (307-188)
Complete Course Listing

307-192 ECE: Practicum 2  

Credits: 3

In this 3-credit course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: identify children's growth and development; maintain the standards for quality early childhood education; practice strategies that support diversity and anti-bias perspectives; implement student teacher-developed activity plans; identify the elements of a developmentally appropriate environment; implement positive guidance strategies; demonstrate professional behaviors; utilize caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults.

Aid Code: 10 - Associate Degree.
Pre-requisites: (307-148) and (307-151) and (307-167) and (307-179) and (307-178)
Co-requisites: (307-174) and (307-194)
Complete Course Listing

307-194 ECE: Math, Science, & Social Studies  

Credits: 3

This 3-credit course will focus on beginning level curriculum development in the specific content areas of math, science and social studies. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; examine the critical role of play as it relates to math, science, and social studies; establish a developmentally appropriate environment for math, science, and social studies; develop activity plans that promote child development and learning; create developmentally appropriate science activities; create developmentally appropriate math activities; create developmentally appropriate social studies activities.

Aid Code: 10 - Associate Degree.
Complete Course Listing
Electric Power Distribution (413)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

413-303 Industrial Electricity for Line Technicians
Credits: 2

Through this course, students gain basic knowledge of the fundamentals of electricity. Topics introduced in this course include magnetism, DC and AC fundamentals, principals of electricity, as well as an overview of transformer operation. Students will be able to apply theories learned in the maintenance and repair of electrical equipment as it applies to the electric utility industry.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Electric Power Distribution Program.
Complete Course Listing

413-304 Safety Procedures I-Line Technicians
Credits: 1

This course introduces the student to safety in the electric utility industry. Students interpret safety precautions in multiple work situations, adhering to OSHA regulations. Students will be able to apply safety rules and procedures in simulated work situations.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Electric Power Distribution Program.
Complete Course Listing

413-305 Safety Procedures II-Line Technicians
Credits: 1

This course continues and expands on topics introduced in Safety Procedures I. Students will increase their knowledge in safe handling of energized conductors and underground lines through the analysis of safe work practices and accident investigations. Students will understand a line technician’s responsibility in protecting work areas and the public in everyday work and emergency situations.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Electric Power Distribution Program.
Complete Course Listing

413-306 Commercial Driver's License (CDL) Preparation
Credits: 1

This course prepares students to take the written portion of the Class A Commercial Driver’s License test. Students, upon completion, will take the written test at the Department of Motor Vehicles’ test center to acquire the instruction permit.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Electric Power Distribution Program.
Complete Course Listing
413-307 EPD Mapping and Automation  
Credits: 1  
This course introduces students to the basics of smart grids. Students will examine GPS mapping, utility system automation, and metering. Students will be able to identify different aspects of the smart grid and how it is used in the distribution of electricity to various consumers.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Electric Power Distribution Program.  
Pre-requisites: (413-315)  
Co-requisites: (413-305) and (413-320) and (413-325)  
Complete Course Listing

413-310 Electric Power Distribution 1A  
Credits: 5  
This course introduces students to the generation, transmission, and distribution systems used to supply power to consumers. Students will operate digger-derrick trucks, set and climb power poles, as well as engage in preparing ropes and knots for lifting and hoisting materials into the air. This course also strengthens the students' knowledge of the types and functions of basic materials used on the job as well as following the procedures for proper use of these materials in the field.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Electric Power Distribution Program.  
Co-requisites: (804-304 or 804-306 or 804-113) and (413-303) and (413-304) and (413-306) and (413-315)  
Complete Course Listing

413-315 Electric Power Distribution 1B  
Credits: 5  
This course is a continuation of Electric Power Distribution 1A where students will use their knowledge to construct overhead single and three-phase power lines. Emphasis will be placed on the student's ability to follow safety rules and construction standards in order to build power lines to specifications provided. In preparation for coursework in the second semester of this program, students examine the basics of transformer operation.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Electric Power Distribution Program.  
Co-requisites: (804-304 or 804-306 or 804-113) and (413-303) and (413-304) and (413-306) and (413-310)  
Complete Course Listing

413-320 Electric Power Distribution 2A  
Credits: 5  
This course is a continuation of Electric Power Distribution 1B. Students apply the theory of three-phase electrical power systems, including wye and delta systems, in order to maintain and construct transformer installations. Students engage in simulated troubleshooting situations and investigate problems which lead them to actively participate in solving the problem.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Electric Power Distribution Program.  
Pre-requisites: (413-315)  
Co-requisites: (413-305) and (413-325) and (413-307)  
Complete Course Listing

413-325 Electric Power Distribution 2B  
Credits: 5  
This course is a continuation of Electric Power Distribution 2A. Students apply the principles of construction and maintenance of an underground residential distribution (URD). Students will engage in the installation underground wire and related equipment of a URD system. They will also operate trenching equipment as well as perform the removal of overhead lines and structures. At the conclusion of this course, students will have the necessary knowledge and skills to begin work in the electric utility industry.  
Aid Code: 31 - One-year Technical Diploma.  
Restrictions: Restricted to students admitted to Electric Power Distribution Program.  
Pre-requisites: (413-315)  
Co-requisites: (413-305) and (413-320) and (413-307)  
Complete Course Listing

413-510 JAC Electrician I  
Credits: 2  
This course follows the first semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.  
Aid Code: 50 - Apprentice.  
Complete Course Listing

413-511 JAC Electrician II  
Credits: 2  
This course follows the second semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.  
Aid Code: 50 - Apprentice.  
Complete Course Listing

413-512 JAC Electrician III  
Credits: 2  
This course follows the third semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.  
Aid Code: 50 - Apprentice.  
Complete Course Listing
413-513 JAC Electrician IV
Credits: 2
This course follows the fourth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-514 JAC Electrician V
Credits: 2
This course follows the fifth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-515 JAC Electrician VI
Credits: 2
This course follows the sixth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-516 JAC Electrician VII
Credits: 2
This course follows the seventh semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-517 JAC Electrician VIII
Credits: 2
This course follows the eighth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-518 JAC Electrician IX
Credits: 2
This course follows the ninth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-519 JAC Electrician X
Credits: 2
This course follows the tenth semester of the National Joint Apprenticeship and Training Committee (NJATC) approved curriculum.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-530 ABC Electrician I
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-531 ABC Electrician II
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-532 ABC Electrician III
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-533 ABC Electrician IV
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-534 ABC Electrician V
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-535 ABC Electrician VI
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-536 ABC Electrician VII
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-537 ABC Electrician VIII
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-538 ABC Electrician IX
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-539 ABC Electrician X
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

413-750 DC Electricity for Industrial Electricians
Credits: 1.75
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing
413-751 AC Electricity for Industrial Electricians
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-752 Codes for Industrial Electricians 1: Introduction to the NEC
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-753 Codes for Industrial Electricians 2: OCPD and Electrical Device Installations
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-754 Codes for Industrial Electricians 3: Article 250 Part A
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-755 Codes for Industrial Electricians 4: Article 250 Part B
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-756 Codes for Industrial Electricians 5: Article 300 Cords/Cables, and Hazardous Installations
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-757 Codes for Industrial Electricians 6: Conductors, Raceways and Data/Communication Cables
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-758 Codes for Industrial Electricians 7: Motors and Generators
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing
413-759 Codes for Industrial Electricians 8: Transformers
Credits: .5
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-760 Industrial Electrician Transformers
Credits: 1
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-761 Industrial Electrician Motors & Generators
Credits: 1
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-762 Industrial Electrician Motor Controls 1
Credits: 1
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-763 Industrial Electrician Motor Controls 2
Credits: 1
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-764 Industrial Electician Motor Controls 3
Credits: 1
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-765 Power Systems & Variable Speed Drives for Industrial Electricians
Credits: 2
This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.
Aid Code: 50 - Apprentice.
Complete Course Listing

413-766 Fluid Power Systems for Industrial Electricians - Pneumatics
Credits: .5
The hydraulics course is customized for Industrial Electricians and relates the basics of hydraulic theory and hydraulic components. Safety and the interrelationship between hydraulic power with electrical control is emphasized.
Aid Code: 50 - Apprentice.
Complete Course Listing
413-767 Fluid Power Systems for Industrial Electricians-Hydraulics
Credits: 5

The hydraulics course is customized for Industrial Electricians and relates the basics of hydraulic theory and hydraulic components. Safety and the interrelationship between hydraulic power with electrical control is emphasized.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-768 Industrial Electrician Solid State Electronics
Credits: 1.75

This course provides the apprentice with the skills and knowledge for troubleshooting basic solid-state devices and circuits. The construction, identification, and operating characteristics of solid-state devices is investigated. The apprentice builds test circuits, gathers and analyzes data, and follows safety procedures. Methods for locating defective components are applied. The replacement of printed circuit board components is performed. Also examined is the effect of temperature on the operation of solid-state devices.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-769 Industrial Electrician Programmable Logic Controllers: 1
Credits: 1

This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-770 Industrial Electrician Programmable Logic Controllers: 2
Credits: 1

This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-771 Industrial Electrician Programmable Logic Controllers: 3
Credits: 1

This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-772 Green Awareness for the E & I Trades
Credits: 1

This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.

Aid Code: 50 - Apprentice.
Complete Course Listing

413-773 Safety & Print Reading for Industrial Electricians
Credits: 2

This is the new aligned curriculum model for related instruction that is effective for the 2013-2014 school year. This program configuration adds the new green awareness module in 2012, and aligns related instruction with employer competencies which were prioritized in 2010. This model illustrates best practices from the WTCS colleges to deliver 720 hours of related instruction to apprentices in 4 years, accelerates the first year coursework, assumes a 16-week semester, and maintains 4 hours per week in class (or the equivalent). The colleges and employers will have flexibility to schedule each of the terms based on local needs.

Aid Code: 50 - Apprentice.
Complete Course Listing

Electromechanical Technology (620)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
620-100 Hydraulics
Credits: 3

This is a course in fundamental principles in the operation of fluid power, as it is used in the transmission of power through various components such as cylinders, motors, pumps, and valves.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Electro-Mechanical Technology Program.
Pre-requisites: 804-110
Co-requisites: (834-110 or 804-113)
Complete Course Listing

620-101 Fundamentals of DC circuits 1
Credits: 1

This course is a study of the basic theories, concepts, elements, and principles of DC circuits. The student investigates voltage, current, resistance and power, and will measure these values. Topics covered include Ohm's Law, meter use and basic series circuits.

Aid Code: 10 - Associate Degree.
Pre-requisites: (804-113 and 804-114)
Co-requisites: (620-116) and (804-115)
Complete Course Listing

620-102 Fundamentals of DC Circuits 2
Credits: 1

This course is a continuation of DC circuits 1. Students advance their knowledge and skill using series to parallel circuits and complex (series-parallel and parallel-series) circuits.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-104)
Complete Course Listing

620-103 Fundamentals of DC Circuits 3
Credits: 1

This course is a continuation of DC circuits 2. The student will analyze voltage dividers and be introduced to capacitors and inductors, their DC charge and discharge time, and their applications. Students will work with magnetism and the operation of relays and solenoids.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-147)
Complete Course Listing

620-104 Digital Logic
Credits: 1

Students define basic logic gate functions and basic Boolean logic expressions. Students will analyze logic voltage timing diagrams, and determine logic outputs given logic inputs. Students perform lab activities in relation to logic operations using switches and gates.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-101)
Complete Course Listing

620-105 Pneumatics
Credits: 2

This course uses fundamental principles of compressed gasses that operate and power industrial equipment. Principles are applied in transmission of power through the various components such as cylinders, motors, compressors, distribution systems and valves. It also includes the analysis of pneumatic circuits.

Aid Code: 10 - Associate Degree.
Co-requisites: 620-100
Complete Course Listing

620-106 Electric Motors
Credits: 1

The students perform, through lab activities, the basics of Motor & DC Permanent Magnet Theory and solid state DC Drives. The student will connect and operate DC Series, Shunt and Compound motors.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-107 Variable Speed Drives
Credits: 1

This course presents learners with variable speed drives that provide power to and controls the operation of AC motors. Name tags, motor maintenance and shaft coupling alignment is also included. The course concludes by having the student describe, analyze and work with 1 and 3-phase power distribution systems.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-114)
Complete Course Listing

620-108 Motors and Drives 3
Credits: 1

This course is a continuation of Motors & Drives 2. Students analyze poly-phase motors and troubleshooting control circuits. Students will engage in hands on activities which include Variable Frequency Drives and Shaft Coupling Alignment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (620-123)
Complete Course Listing

620-109 Relay Logic
Credits: 1

Students analyze relay theory and operation and apply this to hardwired AND & OR circuits, as well as start/stop circuits using relays. Relay ladder diagrams and motor starter circuits are defined.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-117)
Complete Course Listing
620-110 Introduction to Programmable Logic Controllers (PLC)
Credits: 4
The student will study components that make up a programmable or microprocessor system and the various applications and operations used for digital and process controls in industry. The further use of programming is expanded to include ladder logic and diagrams. Diagnostic troubleshooting is applied along with analysis of interfacing microprocessors and programmable controllers to other control systems.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** 605-102
Complete Course Listing

620-111
Credits: 1
This course introduces students to the basics of programming fundamentals. Students analyze the fundamentals of computer operations, programming and logic principles, and empirical program design. Students will employ programming language to program microprocessors and other devices.
**Aid Code:** 10 - Associate Degree.
**Pre-requisites:** (620-118)
Complete Course Listing

620-112 Programming Fundamentals 2
Credits: 1
This is a continuation of Programming Fundamentals 1. Students advance their knowledge and skill with instructions and data manipulation. In a hands-on laboratory environment, language and instruction sets will be defined and used to control devices with a special emphasis on industrial applications.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** (801-195) and (620-106)
Complete Course Listing

620-113 Fundamentals of AC circuits 1
Credits: 1
Students explore the theory of alternating voltage and current, the sine wave and transformers. Students measure these values with meters and oscilloscopes in relation to reactance, impedance and phase differences.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** (620-121) and (804-115)
Complete Course Listing

620-114 Fundamentals of AC Circuits 2
Credits: 1
This course is a continuation of AC circuits 1. Students analyze capacitive and inductive reactance, impedance and phase properties of AC waveforms. Students will examine basic RL, RC and RLC circuits, as well as basic 3 phase voltage measurement.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** (620-112)
Complete Course Listing

620-115 Computer and Robotic Programming
Credits: 4
This course is primarily for students with little or no programming background. The course includes the fundamentals of computer operations. Students will be exposed to programming and logic principles that apply to industrial programming applications. The programming language will be employed to program microprocessors and robotic controls. The language and instruction sets will be studied and used to control devices with a special emphasis on industrial applications. The course includes hands-on laboratory sessions.
**Aid Code:** 10 - Associate Degree.
**Pre-requisites:** 620-110
Complete Course Listing

620-116 Fluid Power 1: Basic Pneumatics
Credits: 1
This course will introduce the student to pneumatics. Students will define the differences between hydraulics and pneumatics through observation of various circuit behavior. Hands-on learning will emphasize control theory of linear and rotary actuators and Vacuum technology will be examined.
**Aid Code:** 10 - Associate Degree.
**Pre-requisites:** 804-113 and 804-114
**Co-requisites:** (620-146) and (804-115)
Complete Course Listing

620-117 Fluid Power 2: Basic Hydraulics
Credits: 1
This course is an introduction to Hydraulics. Students will examine the physical principles of confined fluids under pressure in both static and dynamic states. Hands-on learning will allow the student an opportunity to put together all of the components that comprise a hydraulic system.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** (620-102)
Complete Course Listing

620-118 Fluid Power Applications
Credits: 1
This course continues the study of pneumatics. Emphasis is placed on the electrical controls of pneumatic circuits while students analyze the operation of sequencing circuits and apply troubleshooting principles to identify faulted components.
**Aid Code:** 10 - Associate Degree.
Complete Course Listing

620-119 Fluid Power 4: Intermediate Hydraulics
Credits: 1
This course continues in the study of hydraulics. Students engage in hands-on activities which allow further practice with hydraulic flow, directional and pressure controls. Students spend time analyzing fluid conditioning, system maintenance and troubleshooting.
**Aid Code:** 10 - Associate Degree.
**Co-requisites:** (620-144)
Complete Course Listing
620-120 Motors and Drive Systems
Credits: 2
This course covers principles for DC motors, AC motors, the drives and variable frequency drives (VFDs). Students will learn about motor types and drives in relationship with the appropriate application within industry. Also covered are electrical protective devices controls, single phase and three-phase power systems, and EMI. The student learns to design, install, and troubleshoot motor controls. Students learn more about electrical and electronic schematic diagrams to better understand the operation of drive control systems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (605-106)
Co-requisites: (620-135)
Complete Course Listing

620-121 Programmable Automation Controllers (PACs) 1
Credits: 1
This course is a continuation of the Programmable Logic Controllers course. Introduction to PACs is defined, including Creating Tags & Bit Level Instructions, PAC operation of Timers & Counters, Program Control, Project Organization & Documentation Arrays. Students engage in hands on activities to apply the aforementioned concepts.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-111)
Complete Course Listing

620-122 Programmable Automation Controllers (PACs) 2
Credits: 1
This course is a continuation of PACs 1 with further exploration into Analog Inputs/Outputs, connecting Math theories, comparisons, move instructions and data manipulation. Students engage in hands-on lab activities with the aforementioned concepts as well as Interface Wiring.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-112)
Complete Course Listing

620-123 Programmable Automation Controllers (PACs) 3
Credits: 1
This class is a continuation of PACs 2 and includes study of Sequencers and Shift Registers. Students engage in lab activities which include the analysis of Function Block Programming, Structured Text and Sequential Function Chart programming.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-131)
Complete Course Listing

620-124 Programmable Logic Controllers - PLCs
Credits: 1
This course is an introduction to PLCs. Students will learn the parts and operation of a Programmable Logic Controller. They will apply basic ladder logic programming and transfer programs from the PC to the PLC. Students explore start stop circuits, timers and counters as they relate to the aforementioned concepts.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-134)
Complete Course Listing

620-125 Servos and Process Controls
Credits: 2
Servomechanisms are used in various automated systems. Students will study principles and theories of servomechanisms and apply them in the laboratory. Process controls and instrumentation are applied to control loops systems in the laboratory. Electrical and electronic diagrams are studied to understand control loop systems. Some experiments are conducted on: hydraulic servo controls systems, DC motors, AC motors, stepper motors, and other controls systems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (605-106)
Co-requisites: (620-135)
Complete Course Listing

620-126 Robotics 1
Credits: 1
The students are introduced to the basics of robotics in this course. This includes defining specific terminology, types, configurations, specifications and application characteristics of robots. The student examines the basic parts of the robot and demonstrates their knowledge through the operation of these systems in laboratory exercises.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-107)
Complete Course Listing

620-127 Robotics 2
Credits: 1
This course is a continuation of Robotics 1. Student engage in more advanced programming, using subroutines, Inputs and outputs, as well as data manipulation. Students are exposed to and use schematics as well as examine robotic troubleshooting.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-132)
Complete Course Listing

620-128 Servo systems Introduction
Credits: 1
This course moves the student into further exploration of the automation process by introducing them to Servos and Feedback Devices. Hands-on lab activities engage the student in working with basic servo systems and Servo Fluid Power control.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-136)
Complete Course Listing

620-129 Servo Motion Programming
Credits: 1
This course is a continuation of Servo Systems Introduction in which students learn programming motion control using servo systems. The student will create a motion profile, incorporating Registration and Camming techniques.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-141)
Complete Course Listing
620-130 Automated Cell Design and Planning  
**Credits:** 2

The student learns the parameters and scope under which a project must function and be constructed. Based on these parameters, the student will design, plan and learn the steps of execution in building an automated robotic cell. Students will learn planning and the use of control tools such as: work breakdown schedule (WBS) and Gantt charts. These tools assist the student in the design, plan, and execution of their work cell. These tools also assist the student in keeping their project on schedule and on budget.

**Aid Code:** 10 - Associate Degree.  
**Restrictions:** Restricted to students admitted to Electro-Mechanical Technology Program.  
**Pre-requisites:** (620-115) and (605-106)  
**Co-requisites:** (620-125)  
Complete Course Listing

620-131 Solid State Devices 1  
**Credits:** 1

This course introduces the student to semiconductor materials, the operation of diodes, Zener diodes and the construction of rectifier and filter circuits. Students perform laboratory experiments that include fundamental transistor construction and switching operation in order to verify the theory.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-126)  
Complete Course Listing

620-132 Solid State Devices 2  
**Credits:** 1

This course is a continuation of Solid State Devices 1. Students examine BJT amplifier circuits, JFETs and MOSFETs as well as their uses in industry. Specifications and schematics of all devices are analyzed.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-108)  
Complete Course Listing

620-133 Solid State Devices 3  
**Credits:** 1

This course is a continuation of Solid State Devices 1. SCRs and Triacs operation and applications are introduced to the student as well as an analysis of control circuitry and phase angle firing properties.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-128)  
Complete Course Listing

620-134 Sensors  
**Credits:** 1

Covers various types of sensors used in industrial operations such as inductive and capacitive proximity detectors, Hall-effect devices and various optical sensing modes. Applications are explored, and connection modes are verified with hands-on activities.

**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

620-135 Power Devices  
**Credits:** 3

This course is an essential study of the various types of power handling solid-state devices found in automation and other electronic equipment. The devices include SCR’s, DIAC’s and TRIAC’s. Regulated and unregulated design power supplies are covered, which include analog and switching types. This course will introduce the student to the design of circuits using power handling devices and the ratings for these types of components. Students will learn to read and interpret schematics used in the electronics industry. This course teaches the study of electronic machine elements, which includes electrical, and electronics drawings and the associated symbols.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** 605-106  
Complete Course Listing

620-136 Automation 1  
**Credits:** 1

This course expands the student’s knowledge from program courses by exploring Thermocouple and RTD I/O functions in a processor format. Students engage in formatting and using trend charts and high speed counters.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-148)  
Complete Course Listing

620-137 Automation 2  
**Credits:** 1

This course is a continuation of Automation 1, expanding the student’s knowledge base by introducing DNET (device net) ENET (EtherNET) communication and Configuring Devices in RSNetworx. Through the use of RSNetworx, students perform these concepts through barcode scanning and RFID functioning.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (620-139)  
Complete Course Listing

620-138 Automation 3  
**Credits:** 1

This course is a continuation of Automation 2 and further explores processing functions of locating and editing I/O Tags and Devices, and forcing bits. Students engage in hands on activities which include troubleshooting PAC Systems through analyzing digital, analog and distributed I/O.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-142)  
Complete Course Listing

620-139 Machine Vision Systems  
**Credits:** 1

This course gives students an introduction to vision systems. Students perform activities which include camera setup, lighting parameters, lenses and study their applications. Students program vision systems and integrate them into PAC systems.

**Aid Code:** 10 - Associate Degree.  
**Co-requisites:** (620-133)  
Complete Course Listing
620-140 Robotic Systems
Credits: 3
The basics of robotics are introduced. This includes terminology, types, configurations, specifications and application characteristics of robots. Mechanical drive systems, along with control systems for automation, are studied. The student learns the basic parts of the robot and will operate these systems in laboratory exercises.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Electro-Mechanical Technology Program.
Pre-requisites: (605-104) and (620-105) and (620-115)
Complete Course Listing

620-141 Process Control 1
Credits: 1
This course begins the culmination of program concepts introducing the student to process methods and techniques as well as controller operation. Students apply concepts through Open Loop Discrete Control, PID function and Temperature Control activities performed in the lab.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-137)
Complete Course Listing

620-142 Process Control 2
Credits: 1
This course is a continuation of Process Control 1, and analyzes more concepts through lab experiments in Process Level Control, Flow Control, and Pressure Control.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-129)
Complete Course Listing

620-143 Process Control 3
Credits: 1
This class is a continuation of Process Control 2. The student explores more indepth concepts in the process field by analyzing Weight Control and Loop Calibrations. Hands-on lab activities engage the student in Function Block programming of PID instructions.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-138)
Complete Course Listing

620-144 Human Machine Interfaces (HMI)
Credits: 1
This course analyzes the configuring and programming of Human Machine Interface (HMI) devices such as panel view touch screens. Students will work with the Allen Bradley FactoryTalk View Application to display and manipulate graphic objects as well as create and configure trends and run-time files in a lab environment.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-127)
Complete Course Listing

620-145 Program Controllers and Human Interfacing Modules (HIM) Devices
Credits: 4
The student will study system components and devices that make up a programmable or microprocessor system. Various applications and operations used for digital and process controls in industry will be studied. Further use of programming is expanded to include ladder logic, function flow control, and block instructions. Networking and interfacing to other computer systems and remote inputs and outputs modules are studied and applied. Human Interfacing Modules (HIM’s) are studied and programmed. HIM’s are setup to connect with the network or PLC’s. Diagnostic troubleshooting of PLC’s and HIM’s is applied to real world control systems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (620-110) and (620-115)
Complete Course Listing

620-146 Mechanics 1
Credits: 1
This course will examine the proper use of basic hand and power tools. Drilling, tapping, saw use, and semi-precision measurement are demonstrated and performed by the student. Fastener types and specifications are explored. Students analyze and operate simple machines such as levers and pulleys, as well as gears and linkages.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-147 Mechanics 2
Credits: 1
This course is a continuation of Mechanics 1. Students engage in further shop practices, such as precision measurement, precision drilling, and basic manual milling operations. Students will examine basic print reading and design.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-109)
Complete Course Listing

620-148 Industrial Integration
Credits: 1
Students analyze the interconnection and communication of industrial devices in this course. Discrete and network I/O communication is examined using Robots and PLCs. Students create a basic system comprised of various industrial devices.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-152) and (631-108) and (801-197)
Complete Course Listing

620-149 Project Planning
Credits: 1
The student examines the parameters and scope under which a project must function and be constructed. Students will engage in planning and the use of control tools such as: a Statement of Work (SOW), a Work Breakdown Schedule (WBS) and Gantt charts. These tools assist the student as they design, plan, and perform the execution of a work cell.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-137) and (809-196)
Complete Course Listing
620-150 Interfacing Robotic Devices
Credits: 4

This course focuses on the integration of a complete automated robotic cell. Many component parts are interconnected in order for the cell to operate properly. Student will interface: PLC's, robots, personal computers, vision systems, sensors, motor drives, conveyors, fluid power devices, and other programmable or hard automation. Topologies for networking, architectures and protocols are covered and employed in industrial control systems. In addition, wireless network technologies, and related hardware will be explored. Student will construct, wire, program, network, troubleshoot and document the complete automated robotic cell.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Electro-Mechanical Technology Program.
Pre-requisites: (620-125) and (620-130) and (620-140)
Co-requisites: (620-155)
Complete Course Listing

620-151 Automation Capstone
Credits: 4

This course focuses on the integration of a complete automated robotic cell with the many component parts interconnected in order for the cell to operate properly. Student will interface PLC's, robots, personal computers, vision systems, sensors, motor drives, conveyors, fluid power devices, and other programmable or hard automation.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-149) and (809-198)
Complete Course Listing

620-152 Circuit Connection Techniques
Credits: 1

The basic construction of circuit boards is examined, as well as the acceptability of soldered components. Through hole and surface mount soldering activities, students fuse parts together with tin lead solder and lead free solder techniques.

Aid Code: 10 - Associate Degree.
Co-requisites: (620-119)
Complete Course Listing

620-155 Automated Robotic Cells
Credits: 4

The student will apply the concepts of robots and automation by building a small automation system. This automation cell will be accomplished within the framework of an assigned team of students. Student will apply learned concepts studied in previous classes. These concepts will assist in building, testing, and running their automated work cell. Student will develop, and apply project planning, time management and cooperative methods with their team members to build their work cell. Student will learn how to design and make parts for this project. They also will specify and purchase parts as well as, analyze system malfunctions, which may occur to the modular level. Student will practice the skills needed to interface and make repairs. By using such organizational tools as WBS and Gantt charts, the student team will learn how to finish the project on time and on budget.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Electro-Mechanical Technology Program.
Pre-requisites: (620-120) and (620-130) and (620-140)
Co-requisites: (620-150)
Complete Course Listing

620-164 Safety 1
Credits: 1

This course focuses on workplace safety, health and inspections. OSHA standards are introduced, how to prepare for and conduct inspections, how to become acutely aware of various hazards and ways in which to effectively communicate to others that they exist. Students will demonstrate the proper use of personal protective equipment (PPE), and fire and safety emergency responsiveness.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-165 Safety 2
Credits: 1

This course is a continuation of Safety 1. Specific topics that are introduced and demonstrated include electrical safety around how to safely use various power tools and hand tools, logout/tagout procedures, ergonomics, and how to properly work with bloodborne pathogens.

Aid Code: 10 - Associate Degree.
Pre-requisites: (620-164)
Complete Course Listing

620-166 Conveyor Systems 1
Credits: 1

In this course, students examine multiple facets of different conveyor systems, components and operation. Students analyze the different aspects of a conveyor system and demonstrate proper fittings for components and operational procedures.

Aid Code: 10 - Associate Degree.
Complete Course Listing
620-167 Conveyor Systems 2
Credits: 1

In this course, students examine multiple facets of different conveyor systems, including the screw, flat belt, and roller conveyors. While incorporating conveyors safety procedures, students will analyze the different systems used to make up an effective belt conveyor and be able to apply standard applications, preventive maintenance, and repair principles when working with various types of conveyors.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-168 Lathes
Credits: 1

This course examines the basics of lathe fabrication processes that are common to the Electro Mechanical and Industrial Maintenance field. Students will demonstrate the basics of metal turning techniques.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-169 Mills
Credits: 1

This course is designed to outline for students the basics of milling fabrication processes that are common to the Electro-Mechanical and Industrial Maintenance field. Through demonstration and practice, students will be able to identify machine parts, analyze their function, and perform simple milling operations. Students will be able to demonstrate the basic use of mills, related safety, maintenance, metal cutting theory, cutting tools, and work holding for the mill.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-170 Valves, Gaskets and Seals
Credits: 1

Students will examine and demonstrate standard procedures related to installing, maintaining, and replacing valves, gaskets, and seals in industrial applications.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-171 Human Relations in the Industrial Setting
Credits: 2

This course is designed to give students insight into how an individual's behaviors and abilities affect their relationships with others at work and with customers. Areas stressed include presenting a professional image in seeking employment, developing a positive work attitude, reliability on the job and an awareness of personal adjustments required for gainful employment.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-172 Machine Setup & Installation
Credits: 1

This course examines standard applications of rigging, machine leveling which are common in industry. Students will perform several leveling and alignment procedures and the common components used to lift and move machinery and equipment while incorporating standard safety procedures.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-173 Blueprint Reading for Machine Prints
Credits: 1

This course is designed to demonstrate the basics of machine print reading. Students will be able to analyze and recognize unique features of machining assembly prints. The student will interpret orthographic projection drawings including sectional, auxiliary views, threads, surface finishes, geometric dimensions, and tolerances.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-174 Mechanical Power Transmission
Credits: 1

This course engages students in the application of gears, belts, bearings, chain drives, and lubrication processes used in industry. Students will interpret and apply the basic industry standard principles of operation, installation, preventative maintenance, and repair procedures.

Aid Code: 10 - Associate Degree.
Complete Course Listing

620-175 Machine Setup & Installation
Credits: 1

This course introduces servomechanism systems used to operate many types of automated systems. Students analyze concepts and elements of open and closed-loop systems, including the fundamental coverage of PID control modes. Feedback sensing devices such as encoders, tachometers, resolvers and LVDTs are examined and the operation of position and velocity control systems is demonstrated. Through the application of basic programming, students are examine the terminology, movements and the physical construction of a robot and the applications for which they are used.

Aid Code: 10 - Associate Degree.
Complete Course Listing
620-702 Mechatronic Principles
Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS. 
Aid Code: 50 - Apprentice.
Complete Course Listing

620-703 DC Electricity for Mechatronics
Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS. 
Aid Code: 50 - Apprentice.
Complete Course Listing

620-704 AC Electricity for Mechatronics
Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS. 
Aid Code: 50 - Apprentice.
Complete Course Listing

620-705 Motors & Motor Control for Mechatronics
Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS. 
Aid Code: 50 - Apprentice.
Complete Course Listing
620-706 Electrical Codes for Mechatronics
Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing

620-707 Welding Basics for Mechatronics
Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing

620-708 Fluid Power Systems for Mechatronic Apprentices
Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing

620-709 Servos and Drives for Mechatronics
Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing
620-710 Power Transmission Systems for Mechatronics

Credits: 1

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.

Complete Course Listing

620-711 Machining Concepts for Mechatronics

Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.

Complete Course Listing

620-712 Introduction to Programmable Logic Controllers

Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.

Complete Course Listing

620-714 HMI Technologies & PLC Applications for Mechatronics

Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.

Complete Course Listing
620-715 Introduction to Robotic Systems for Mechatronics

Credits: 2

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing

620-716 Introduction to Robotic Integration

Credits: 3

This program configuration represents a statewide model for class cohorts in the related instruction portion of the mechatronics technician apprenticeship. The model outlines related instruction for 3 years and 6 semesters (terms). It reflects a total of 864 hours of combined on-campus lecture, demonstration, shop, and hands-on learning aligned with DWD-BAS apprenticeship training standards. This model is designed for class meetings one day per week, and every week during 2 semesters per year. This model provides foundational skills apprentices will need in on-the-job learning during the final 2 years of their apprenticeship. The model provides 288 hours of learning in each of the following disciplines: mechanical, electrical, and automation. This model aligns WTCS learning outcomes with relevant industry/manufacturing standards as identified by an industry validated DACUM and Exhibit A work processes approved by the state trade committee. Supporting documentation may be found in the BAS Mechatronics Technician Job Book pending in 2016-7. The model also aligns common and consistent course numbers that colleges may use across the WTCS (along with recommended hours, credits and pre-requisites). This curriculum model may be interpreted and implemented by the colleges as required to meet local needs and in support of local work processes approved by the trade and DWD-BAS.

Aid Code: 50 - Apprentice.
Complete Course Listing

620-900 Safety 1

Credits: 1

This course focuses on workplace safety, health and inspections. OSHA standards are introduced, how to prepare for and conduct inspections, how to become acutely aware of various hazards and ways in which to effectively communicate to others that they exist. Students will demonstrate the proper use of personal protective equipment (PPE), and fire and safety emergency responsiveness.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Electronic Technology (605)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

605-102 Fundamentals of DC Circuits

Credits: 3

This course is a study of the basic theories, concepts, elements, and principles of DC circuits. The student advances from simple to complex circuits. Topics covered include Ohm's Law, series and parallel circuits, circuit theorems and circuit analysis. The course combines both lecture and laboratory work.

Aid Code: 10 - Associate Degree.
Co-requisites: 804-113
Complete Course Listing

605-104 Fundamentals of AC Circuits

Credits: 3

This course is a study of the basic theories, concepts, elements, and principles of AC circuits. The student advances from simple to complex circuits. Topics covered include reactance, impedance, resonance, transformers, inductors, and capacitors. The course combines both lecture and laboratory work.

Aid Code: 10 - Associate Degree.
Pre-requisites: (605-102)
Co-requisites: (804-114)
Complete Course Listing

605-106 Analog Circuits

Credits: 3

This course provides the student with the concepts and fundamental circuit design material to create several types of analog circuits. This course also explores the principles and concepts needed for solid-state devices to operate correctly. Course study includes: the use of solid-state devices such as diodes, transistors field-effect devices, and op-amps. Areas covered include: amplification, comparing, summing, wave shaping, regulating, and oscillation circuits. Analog to digital conversion and several types of integrated circuits are investigated and applied. Characteristics and application of each device type is verified in laboratory experiments.

Aid Code: 10 - Associate Degree.
Pre-requisites: (605-102)
Co-requisites: (605-104)
Complete Course Listing
Emergency Medical Service (531)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

531-102
Credits: 1

This course prepares the individual for common emergencies in the work place. It includes the American Heart Association Adult, Child and Infant CPR, First Aid and Fire Prevention and Safety.

Aid Code: 10 - Associate Degree.
Complete Course Listing

531-104
Credits: 4

The course is for Fire Protection Technician program students only. This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context. The National Registry of EMT's test is required at the completion of the course for licensure in the State of Wisconsin.

Aid Code: 10 - Associate Degree.
Pre-requisites: 531 434
Complete Course Listing

531-105
Credits: 3

The EMT Intermediate Technician course will take you to the next level of training after EMT-Basic. Students will learn clinical decision making skills, basic pharmacology, intravenous therapy, and management of cardiovascular, diabetic, drug overdose, and shock cases. The class includes a combination of classroom and practical skills training that includes clinical time in a hospital setting. Demonstrated skill competencies are required to successfully complete this class in order to be eligible to take the Wisconsin State licensure examination. EMT-Basic and a current EMT-B license are pre-requisites for this class.

Aid Code: 10 - Associate Degree.
Complete Course Listing

531-110
Credits: 5

Prepares students for the National Registry of EMTs Emergency Medical Technician level test which leads to licensure as an EMT in Wisconsin. The course emphasizes emergency medical skills needed to stabilize both trauma and medical patients in a prehospital setting within the guidelines of Medical Control. The course covers basic anatomy and physiology, patient and scene assessment, patient stabilization and intervention techniques, medical-legal aspects, and patient packaging and transportation to the hospital. This course is a prerequisite for Advanced EMT and includes 180 hours of instruction that includes lecture, practical skill development, simulation learning, and clinical time. The course includes the American Heart Association Healthcare Provider CPR as a course introduction. Failure to successfully complete this portion of the course disqualifies students from continuing. There is an additional course fee that covers required class materials with the exception of books. This course fee is non refundable after the first day of class.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103 or 801-136 or 801-195) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-109 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

531-111
Credits: 4

Prepares students for the National Registry of EMTs Advanced Emergency Medical Technician level test which leads to licensure as an AEMT in Wisconsin. The course emphasizes more advanced emergency medical skills needed to stabilize both trauma and medical patients in a prehospital setting within the guidelines of Medical Control. The course covers additional anatomy and physiology needed for more advanced patient assessment and treatment skills. Patient stabilization and intervention techniques at this more advanced level are also covered. This course includes 180 hours of instruction that includes lecture, practical skill development, simulation learning, and clinical time.

Prerequisite: Wisconsin licensed EMT.

Aid Code: 10 - Associate Degree.
Complete Course Listing

531-304
Credits: 5

Students learn advanced patient assessment, communication skills and advanced life support interventions through lecture and in class practical application. This course is the first of two class needed to meet the requirements for certification with the National Registry of Emergency Medical Technicians and educational requirements for licensure in Wisconsin.

Aid Code: 30 - Short-term.
Complete Course Listing
Students learn advanced patient assessment, communication skills and advanced life support interventions through lecture and clinical and field experience. This course is the second of two classes needed to meet the requirements for certification with the National Registry of Emergency Medical Technicians and educational requirements for licensure in Wisconsin.

Aid Code: 30 - Short-term.
Complete Course Listing

**English (851)**

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

851-713 BSE Communications I
Credits: 3
Introductory course includes basics of punctuation, spelling, capitalization as needed for written expression in everyday situations. Basic sentence and paragraph construction will be included.
Aid Code: 73 - Beg ABE (0-5.9).
Complete Course Listing

851-755 BSE Communication Skills Workplace Learning Center
Credits: 2
Participants in this course will learn how to increase their reading comprehension; use punctuation, spelling and capitalization rules as needed for written expression in everyday situations. Basic sentence and paragraph construction will be included.
Aid Code: 77 - ASE Developmental.
Complete Course Listing

851-762 Communication 2
Credits: 3
This course develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting and revising for the GED test at the pre-GED level.
Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

851-771 BSE Communication 3, GED
Credits: 3
A continuation of Communications 2. Expansion of English structure, usage and mechanics with emphasis on writing skills needed for the essay component of the GED Writing Skills test.
Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

851-772 Communication 3 GED Review
Credits: 3
This course further develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting, and revising for the Reasoning Through Language Arts GED test. This course may also develop communication skills as needed for the Mathematical Reasoning, Social Studies, and Science GED tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*
Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

851-780 BSE Communication 3, Review
Credits: 3
This course allows the students to work on any area in writing that they need to review to be successful in later course work or in their career. A variety of methods can be used in reviewing writing skills, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students through their learning to achieve a predetermined goal.
Aid Code: 78 - ASE Remedial.
Complete Course Listing

851-763 BSE Writing for Accuplacer
Credits: 2
This course will provide instruction in writing skills needed to be successful on the Accuplacer writing test.
Aid Code: 74 - Interm ABE (6.0-8.9).
Complete Course Listing

851-764 Communication 2 GED Review
Credits: 3
This course develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting and revising for the GED test at the pre-GED level.
Aid Code: 74 - Interm ABE (6.0-8.9).
Complete Course Listing

851-771 BSE Communication 3, GED
Credits: 3
A continuation of Communications 2. Expansion of English structure, usage and mechanics with emphasis on writing skills needed for the essay component of the GED Writing Skills test.
Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

851-772 Communication 3 GED Review
Credits: 3
This course further develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting, and revising for the Reasoning Through Language Arts GED test. This course may also develop communication skills as needed for the Mathematical Reasoning, Social Studies, and Science GED tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*
Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

851-780 BSE Communication 3, Review
Credits: 3
This course allows the students to work on any area in writing that they need to review to be successful in later course work or in their career. A variety of methods can be used in reviewing writing skills, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students through their learning to achieve a predetermined goal.
Aid Code: 78 - ASE Remedial.
Complete Course Listing
851-781 Communication 3
Credits: 2

This course will include the basic points and refinement of grammar, spelling and the writing of paragraphs and essays. Successful completion of Communication 3 with a C or better is required for progression to Intro to College Writing. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*
Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Pre-requisites: (ASSET Writing Skills, 35 or COMPASS Writing Skills, 025 or ACT English, 12 or AccuPlacer Sentence Skills, 046 or 851-762)
Complete Course Listing

851-793
Credits: 2

This course helps students improve both basic reading skills and critical thinking skills. Specific skills covered include: recognizing words in context, recalling facts, keeping events in order, making inferences and understanding main ideas.
Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

English Language Learners (861)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

861-701 English as a Second Language, Advanced Communication
Credits: 3

Learners will discriminate common stress patterns, reductions, intonation, pitch patterns, and thought groups. Learners will utilize rules of grammar to form affirmative and negative statements and questions using simple, continuous, perfect and perfect continuous tenses. The use of conditional sentences and active/passive voice will be explored. Learners will be expected to use sustained speech to participate in discussions about unfamiliar topics, share experiential stories, and present oral reports of various types.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-702
Credits: 1

This 36-hour course will assist English Language Learners (ELL) in bridging the gap between ELL program completion and readiness for success in a postsecondary program. Students will develop basic computer and academic skills, as well as identify and explore career interests. Students must have instructor recommendation to enroll.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-704 English as a Second Language, Advanced Mathematics
Credits: 3

This course focuses on the application of skills to solve word problems. Learners will apply concepts of whole numbers, fractions, decimals, percents, proportion, algebra, and geometry to solve multiple step word problems.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-705 English as a Second Language, Advanced
Credits: 3

Learners in this course will analyze the systems in the world of work in the U.S. including chain of command, steps to filing a grievance, resolution of discriminatory practices, insurance options, and networking. All learners will develop resumes and practice writing cover letters as well as participate in mock interviews. Career options will be explored using a variety of materials and techniques.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-708 English as a Second Language, Advanced Reading
Credits: 3

Learners will demonstrate comprehension of a variety of written work including short stories, consumer warnings, software instructions, newspapers, magazines, and college catalogues. Activities include identification of main idea and details, making inferences, identification of author’s bias, and the identification of characters, setting, and plot. The writing process will be used to construct multiple-paragraph compositions. Learners will use reference tools including the dictionary, thesaurus, atlas, encyclopedia, software and the Internet.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-711 English as a Second Language, Beginning Literacy, Communication
Credits: 3

Instruction and practice in the use of formal and informal conversational language. Students build vocabulary and learn to use numbers, emergency and health language, identify types of jobs and classroom objects. Basic pronunciation, speaking, and listening strategies are developed. Basic grammar and writing skills are introduced and practiced. Programs are infused with and enhanced by technology.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-714 English as a Second Language, Beginning Literacy, Mathematics
Credits: 3

Develops language and skills needed for beginning math. Topics include number concepts, mathematical language and whole numbers. This level introduces fractions, decimals, measurements and geometric shapes. Students develop critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.
Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing
861-715 English as a Second Language, Beginning Literacy  
Credits: 3  
Students develop basic language skills in the area of speaking, listening, reading and writing in the context of real-life survival skills. It is aimed at developing the listening comprehension and oral skills of beginning level learners of English. Students at this level function minimally, if at all, in English.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-718 English as a Second Language, Beginning Literacy, Reading  
Credits: 3  
Instruction to teach discrimination and correct orientation of the English alphabet, to introduce symbol/sound relationships, and the meaning of common signs and symbols. Students learn to recognize personal information print, use maps, calendars, and picture dictionaries. Students also begin to develop basic comprehension strategies at this level.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-731 English as a Second Language, Beginning Literacy, Reading  
Credits: 3  
Instruction to improve reading skills and expand vocabulary. Students learn to comprehend and respond to a range of printed material, employ a variety of comprehension strategies, recognize formal and informal language, and develop fluency.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-734 English as a Second Language, Low Beginning, Mathematics  
Credits: 3  
Reviews ESL Beginning Math content and develops language and skills needed for Beginning/Intermediate Math. Concepts covered include fractions, decimals, measurements, mathematical language, percents, ratios and proportions. This level introduces basic algebra and geometry concepts. Students will use critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-735 English as a Second Language, Low Beginning  
Credits: 3  
Classes at this level provide relevant language in real-life contexts. This class uses an experience centered approach to give student survival skills as quickly as possible. This program provides plenty of opportunity to use language, while developing grammatical skills. Students at this level will begin to form simple sentences and be able to communicate with others. Students learn about standard social norms in the United States, the work ethic in the United States, and how to apply basic study skills.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-738 English as a Second Language, Low Beginning, Reading  
Credits: 3  
Instruction to improve basic reading skills and expand vocabulary. Students learn to read short paragraphs and workplace reports, develop an awareness of language patterns, utilize rules of grammar, use formal and informal conversational language and respond to multi-step process directions. Computer technology is used to enhance the learning experience.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-751 English as a Second Language, High Beginning, Communication  
Credits: 3  
Instruction to improve speaking, listening, pronunciation, writing, and grammar skills. Students learn to use the writing process to compose short paragraphs and workplace reports, develop an awareness of language patterns, utilize rules of grammar, use formal and informal conversational language and respond to multi-step process directions. Computer technology is used to enhance the learning experience.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-754 English as a Second Language, High Beginning, Math  
Credits: 3  
This course introduces basic concepts and language skills needed in algebra and geometry such as signed numbers, powers and roots, algebraic expressions, equations, rectangular coordinates, polynomials, angles, triangles and plane and solid figures. This course allows the student to work on areas in math that they need to be successful in later course work or in their career.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-755 English as a Second Language, High Beginning  
Credits: 3  
Students learn about school services and how to access them. They will participate in formal and informal conversations about legal and basic human rights. Students learn to write cover letters, resumes, and to complete job applications. Development of study skills is stressed, and students will learn to apply learning and test taking skills and strategies and actively participate in the learning process.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing  

861-758 English as a Second Language, High Beginning Reading  
Credits: 3  
Instruction to improve reading skills and expand vocabulary. Students improve comprehension skills and learn to respond critically to a range of printed material. Employability vocabulary and the use of workplace terminology are expanded. Students develop greater fluency and increase their reading rate.  
Aid Code: 75 - ESL W/Instrl Area 861.  
Complete Course Listing
861-771 English as a Second Language, Low Intermediate Communication

Credits: 3

Learners will identify sounds of English, use basic pronunciation strategies, and discriminate speech. Formal and informal conversational language skills will be developed through participation in a variety of activities. Learners will use sustained speech to give short explanations, descriptions, and process directions.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-774 English as a Second Language, Low Intermediate Mathematics

Credits: 3

Learners will use critical thinking skills to solve problems using fractions, decimals, percents, and proportions. Basic algebra and geometry concepts will be introduced.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-775 English as a Second Language, Low Intermediate Mathematics

Credits: 3

Learners will use pre-employment resources such as classified ads, employment agencies, web sites and the Rock County Job Center to complete a variety of assignments and tasks. Employer expectations such as punctuality, attitude, team work, and appreciation for diversity will be discussed. Learners will participate in activities to prepare for interviews.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-777 English as a Second Language, Low Intermediate Reading

Credits: 3

Learners will demonstrate comprehension of a range of printed materials including road signs, safety signs, newspaper articles, rhythm chants, short narratives, and fairy tales. Comprehension strategies studies will include recognition of compound words, homonyms, prefixes, and suffixes. Learners will demonstrate an awareness of a variety of language patterns and utilize rules of grammar to form statements and questions in simple and continuous tenses.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-778 English as a Second Language, Low Intermediate Reading

Credits: 3

Learners will analyze a variety of printed material and identify main ideas, supporting details, predict outcomes, make inferences, and draw conclusions. Sources will include textbooks, newspapers, magazines, school notices, schedules, nutrition labels, and consumer instructions. Learners will use the writing process to compose organized paragraphs.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-794 English as a Second Language, High Intermediate Mathematics

Credits: 3

Learners will be introduced to basic concepts and language skills needed in algebra and geometry such as signed numbers, equations, rectangular coordinates, polynomials, angles, triangles, and plane and solid figures.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-795 English as a Second Language, High Intermediate

Credits: 3

Learners will identify the raise-promotion process, discuss the purpose of personnel files, discuss employer expectations, and identify discriminatory practices. Interview etiquette will be discussed and practiced. Activities will lead to greater understanding of American cultural practices such as volunteerism, competitiveness, parenting, and neighborhood interaction.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-798 English as a Second Language, High Intermediate Reading

Credits: 3

Learners will discriminate speech, display active listening skills, and increase survival language. Formal and informal conversational language will be practiced. Learners will be expected to use sustained speech to generate two-person dialogues about familiar topics and share experiential stories. There will be instruction and practice using a variety of grammatical structures including the perfect tenses and tag questions.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

Environmental (506)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

506-101 Beginning Laboratory Skills

Credits: 3

This class introduces general laboratory concepts and procedures. Emphasis will be placed on laboratory safety, equipment utilization, and maintenance. An introduction to scientific inquiry will be addressed. Proper techniques in specimen collection, record keeping, and quality control will be introduced. Basic laboratory mathematics will be discussed and applied.

Aid Code: 10 - Associate Degree.
Co-requisites: (804-106 or 804-107)
Complete Course Listing

506-102 Intermediate Laboratory Skills

Credits: 3

The learner will begin to apply laboratory procedures and the scientific method to the analysis of samples and the performance of simple experiments. The learner will develop and apply data analysis and management techniques. The learner will develop the necessary methodology to deal with chemical and bio-hazardous materials.

Aid Code: 10 - Associate Degree.
Pre-requisites: (506-103 or 513-113)
Complete Course Listing
506-103 Basic Laboratory Skills II  
**Credits:** 2

This class continues the introduction of general laboratory concepts and procedures learned in 513-110 Basic Lab Skills. Emphasis will be placed on laboratory safety, equipment, utilization, and maintenance. An introduction to scientific inquiry will be addressed. Proper techniques in specimen collection, record keeping, and quality control will be introduced. Basic laboratory mathematics will be discussed and applied.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** 513-110  
Complete Course Listing

506-105 Quality Concepts in Laboratories  
**Credits:** 3

The student will become familiar with quality concepts and their application within the laboratory environment. This will include understanding of the meaning and benefits of quality, quality systems and processes, and the cost/impact of quality. How to apply problem solving skills for continuous improvement will be explored.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

506-108 Laboratory Safety and Hazardous Materials  
**Credits:** 1

The learner will become familiar with the fundamental aspects of safety and hazardous materials in the laboratory environment, as well as safety/hazardous materials regulations and their applications. The learner will develop an awareness of their responsibility for safety within the workplace.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

506-109 Data Management for Laboratory Assistants  
**Credits:** 1

This class introduces the fundamental concepts and approaches for data management in a laboratory environment. Both manual and automated data collection and management will be covered with particular emphasis on "best practice" approaches for reliability, accuracy, and integrity within data management systems and their use.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

506-110 Food and Nutritional Science  
**Credits:** 3

This course examines the biochemical processes of digestion and absorption as it pertains to the macromolecules, carbohydrates, lipids, and amino acids. Learners will analyze enzymes, vitamins, and co-factors. Learners will define the most common sources and functions of nutrients and nutritional needs by examining such items as caloric contents in food. Contemporary and emerging issues in nutrition will be examined.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** 806-199  
Complete Course Listing

506-112 Food Production Regulations / HACCP, GFSI, FSMA  
**Credits:** 2

The regulations governing food production are a necessary part of ensuring safety of our food supply. The primary focus of this course will be for students to learn and apply the Hazard Analysis Critical Control Point (HACCP) system. Students will explore the relevant elements and the application of both the Global Food Safety Initiative (GFSI) and the Food Safety Modernization Act (FSMA). Students will evaluate how each regulation can influence the development of a strong quality assurance program within a food production facility. Upon completion of the course, students will be prepared to become HACCP-certified. (The certification is taken outside of the course).  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

506-113 Excel and Access for the Laboratory  
**Credits:** 3

In this course students input data into Excel and Access, as well as analyze data using the software and its specific features. Students will learn how to control and share the data they have created. Students research different types of labs that utilize this software, and how data from these programs is and can be incorporated into a Laboratory Information Management System (LIMS).  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

506-114 Introduction to the USDA and FDA  
**Credits:** 2

The United States Department of Agriculture (USDA) and Food and Drug Administration (FDA) are the major governing bodies involved in regulating our food supply. In this course, students will study the establishment of these government entities and analyze how they coexist. Students will define which areas of our food supply are governed by each entity. Learners will study the types of documents each facility must maintain in accordance with these governing bodies’ regulations. Students will have the opportunity to participate in mock audits of a variety of production facilities during the course.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing
**506-117 Food Laboratory Occupational Experience**  
**Credits:** 2  

Students will be placed in a field experience where they will participate in the day to day operations of a food lab or food production facility. Students will be matched with an employee mentor at the facility and demonstrate skills in both the technical side of the industry as well as professional work behaviors.  
**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (806-199) and (806-197)  
Complete Course Listing

**506-120 ServSafe Certification Preparation**  
**Credits:** 1  

This course will introduce the learners to food preparation and storage conditions that promote safety to the consumer. Learners will prepare for and take a practice test of the ServSafe Certification. Upon successful completion of the course, students may elect to take the ServSafe Certification exam.  
**Aid Code:** 10 - Associate Degree.  
Complete Course Listing

## Farm Business Management (090)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

**090-303 Agricultural Commodity Marketing for Farm Operators**  
**Credits:** 1  

Learners will develop an understanding of the principles of marketing relative to basic economic theory. Learners will analyze a variety of topics, including product differentiation, direct marketing, and competitive advantage. Learners will examine the marketing process from production through delivery and ultimately to the consumer.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing

**090-305 Nutrient Management Planning for Farm Operators**  
**Credits:** 3  

Students focus on profitable crop production methods using commercial products, nutrient credits, and rotational practices. Students learn how to interpret soil test reports, balance soil pH, meet nutrient requirements, and make product recommendations based upon economic, environmental, and legal criteria. Students will study field mapping based on global positioning systems and variable rate technology.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing

**090-381 Operating the Farm Business**  
**Credits:** 3  

Emphasizes the management skills and concepts necessary for the first year student to continue farming with today's changing technology and farm business financing. Special emphasis is given to establishing and recording farm business and family goals. The student will organize and maintain the farm business records, as well as interpret and analyze the records to assist in making sound farm business management decisions. Each student's farming operation is assessed and plans are developed based on needs, goals, and objectives. Students will evaluate their goals and objectives upon completion of the course.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing

**090-382 Soils Management for Farm Operators**  
**Credits:** 3  

Instruction is provided on preparation and implementation of a land-use plan, and soil testing procedures and reports. Students will receive instruction on fertilizer recommendations and budgets. Included are instruction on the application of farm manures, chemicals, soil conservation practices, and the management and safe use of farm machinery and equipment. Soil management emphasizes the analysis of the farm business and planning cropping strategies to meet the student's needs.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing

**090-383 Crop Management for Farm Operators**  
**Credits:** 3  

Instruction is provided on all phases of crop production, management and economics. Specific topics relate to variety, selection, planning, pest control, harvesting, storage, and marketing. In addition, the cropping program is related to the total farm enterprise on a short-term and long-term basis. Crop management emphasizes the analysis of the farming business and planning of cropping practices and strategies to meet student's needs.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing

**090-384 Livestock Nutrition for Farm Operators**  
**Credits:** 3  

This course emphasizes the skills, techniques and concepts necessary for sound feeding management. Feed values, pricing, terminology, requirements, and consumption are covered. Evaluation of feed tag labels, base feeds and feeding programs are also covered. Attention is given to the metabolic diseases of lactating animals. Livestock feeding efficiency is measured by use of the farm business analysis.  
**Aid Code:** 30 - Short-term.  
Complete Course Listing
Livestock management provides instruction on the various aspects of selection, breeding, herd health, raising of replacement stock, and marketing of livestock and livestock products. It includes the selection, operation, and maintenance of farm buildings and milking, feeding, ventilation and manure handling equipment. Efficiency of the livestock program will be measured through use of the farm business analysis.

**Aid Code:** 30 - Short-term.

Instruction emphasizes the practical use of a farm record system in managing the farm through farm and financial analysis. It includes the establishment of farm business goals, selection, and use of farm credit, farm business arrangements, farm estate planning, and farm income taxes. Instruction is provided on the use of computers and/or computer records and farm financial analysis of the farm business. Production and financial decisions will be based on the student's farm business analysis.

**Aid Code:** 30 - Short-term.

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**Fire Technology (503)**

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

**503-108**

Credits: 4

The basic principles of structural design, masonry, frame, veneer, structural steel and reinforced construction are studied, with fire ordinances that apply during construction.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

**503-109**

Credits: 3

This course provides an introduction to the Hazardous materials problem by presenting the foundation needed to go further in the study of hazardous materials, such as "hands on" courses and incident-command courses. The chemistry presented in this course is designed to be the minimum a firefighter will need to understand and recognize in each hazard class. In general, each hazard class shows what a firefighter can expect in fire and non-fire situations.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

**503-110**

Credits: 3

This course is designed to give the student an over view of such supervisory skills as leadership and interpersonal skills, planning, staffing, organizing, and control at the first-time supervision level. The duties and responsibilities of supervisors, the role of supervision in an organization and making the transition to supervisor are also included.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

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This is a study of the properties, derivations, and uses of explosives and other dangerous chemicals such as flammable liquids, flammable solids, oxidizing materials, corrosive liquids and solids, compressed gasses, radioactive materials, poisons and their modes of transportation and storage. The procedures as to dealing with these chemicals on the foreground are also studied.

**Aid Code:** 10 - Associate Degree.

This course discusses the organization and function of fire prevention and fire protection systems. Topics include inspection, surveying and mapping procedures, recommendations for correction of fire hazards, engineering as a solution to fire hazards, code enforcement at the federal, state, and local levels, public relations as affected by fire prevention, portable fire extinguisher equipment, sprinkler systems, standpipe systems, protection systems for special hazards, and fire alarm and protection systems. Students will visit local facilities to make mock inspections and to see how fire protection equipment and systems work in order that critical appraisals can be made.

**Aid Code:** 10 - Associate Degree.

This course is designed to give the student a basic knowledge of hydraulics relative to the fire service field. The theoretical aspects as well as the practical fire ground approach is studied.

**Aid Code:** 10 - Associate Degree.
503-125 Emergency Medical Technician Fundamentals
Credits: 2

This 2 credit, 8 week course covers the basics of the Emergency Medical Technician-Basic certification course to include CPR, airways, anatomy, hazmat response requirements, lifting and moving patients, incident command, and other technical information. It is the first part of a two course system to prepare students for national certification testing for EMT-Basic.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or ASSET Numerical Skills, 40 or Test Waived-College Degree or 834-109 or 834-109 or 804-107 or (AccuPlacer Arithmetic, 089 or AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030)) and (COMPASS Writing Skills, 070 or ACT English, 18 or ASSET Writing Skills, 44 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 851-782 or 851-782 or 851-783 or 851-783 or 831-103 or 831-103 or 801-195 and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

503-126
Credits: 3

The scope and functions of administrative management personnel in the fire department are studied. Discussions include fire service role in the community, selection, training and advancement, line and staff functions, and developing and conducting short courses on fire protection subjects.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-128 Emergency Medical Technician Applications
Credits: 3

This course is an extension of, and completion of, the EMT Fundamental course. This course covers the bulk of the Emergency Medical Technician-Basic certification course to include the handling of cervical and spine injuries, burn injuries, heart and breathing related problems, shock, and other trauma injuries. This course includes several lab days to practice and perfect skills, clinical time, and extensive hands-on activities. This course prepares students for national certification testing for EMT-Basic. Admittance into this course must be within 2 years of completing Course # 503-125, EMT Fundamentals.

Aid Code: 10 - Associate Degree.

Pre-requisites: (503-125)

Complete Course Listing

503-135
Credits: 3

Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; and fire service nomenclature.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-139
Credits: 3

Provides an overview to fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; and fire service nomenclature.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-142
Credits: 4

Describes basic fire behavior, techniques used to control structural and related fire emergencies, and life safety practices. Students perform all practical evolutions necessary to control and extinguish fires and otherwise meet all requirements for Firefighter I certification with the State of Wisconsin.

Aid Code: 10 - Associate Degree.

Co-requisites: (503-153)

Complete Course Listing

503-143 Building Construction for Fire Protection
Credits: 3

Provides the components of building construction that relate to fire and life safety.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-144
Credits: 3

This course is designed to allow a student to research and dissect a problem area in Fire Science.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-146
Credits: 2

This course is designed to allow a student to research and dissect a second problem area in Fire Science.

Aid Code: 10 - Associate Degree.

Complete Course Listing

503-147
Credits: 4

Provides information relating to the features of design and operation of fire detection and suppression systems.

Aid Code: 10 - Associate Degree.

Complete Course Listing
This course allows the student to make knowledgeable decisions regarding fire ground tactics both from a battalion and company level, and provides insight into unusual circumstances often encountered in the fire service. The student will also learn the procedures used in the development of disaster planning and the relationship between various local, state, and federal agencies from an administrative viewpoint.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

### 503-150
**Credits:** 3

Students need to understand how officers and personnel units work together to manage firefighters. This course presents basic ideas that all officers need to effectively manage personnel activities.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

### 503-151 Fire Prevention
**Credits:** 4

Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, and identification and correction of fire hazards.

Meets all requirements for Fire Inspector I certification with the State of Wisconsin.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

### 503-154 Hazardous Materials Chemistry
**Credits:** 2

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (503-142) and (503-153)

Complete Course Listing

### 503-156
**Credits:** 4

Provides an in-depth analysis of the principles of emergency response through utilization of an incident management system. Prepares students to pursue current national ICS training requirements.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (503-142) and (503-153)

Complete Course Listing

### 503-157
**Credits:** 3

Provides learners with the fundamentals and technical knowledge needed for proper fire scene investigations.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

### 503-159
**Credits:** 2

Builds on the basic skills learned in Fire Fighting Principles with an emphasis on scene management, communication, and fire operations processes.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (503-142) and (503-153)

Complete Course Listing

### 503-160 Fire Protection Technician Internship
**Credits:** 3

The Fire Protection Technician Internship is designed for students who meet the required prerequisites in order to serve at district fire departments as a responder. This opportunity affords each intern with the learning and understanding of the day-to-day worklife and culture of fire service. Included in the student intern's responsibilities will be station duties of cleaning, maintenance of fire equipment and apparatus, response to EMS and fire emergencies and fire inspections under the supervision of a designated Fire Department supervisor. FPT interns may also be involved in public relations and fire prevention, responsibilities of a subordinate, chain of command, organizational requirements, and the formal and informal relationships, work climate, and complexities of fire service culture. The total time on the job as an intern is 216 hours and is designed to be served in the assigned fire station, under supervision. The shift schedule will be determined by the Fire Coordinator, student, and hosting fire department based on program outcomes and student needs but must be completed in one semester. Completion requires satisfactory reporting from assigned agency fire chief, Fire Coordinator, and a passing grade on the final portfolio submitted by the student for the internship.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (503-142) and (503-153) and (503-128 or 531-110)

Complete Course Listing

### 503-191 Principles of Emergency Services
**Credits:** 2

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

### 503-192 Principles of Emergency Services Safety & Survival
**Credits:** 3

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing
503-193 Fire Protection Systems  
Credits: 3  
This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
503-194 Fire Protection Hydraulics  
Credits: 3  
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (503-142) and (503-193) and (503-153)  
Complete Course Listing  
503-195 Fire Behavior and Combustion  
Credits: 3  
This 3 credit course provides an in-depth look at the combustion process and chemical reaction along with an analysis of fire behavior, principles, and theories. This course will also examine the physics of the combustion process, the products of combustion, and the effects of fire and combustion inside a structure, and the impact on the firefighter and victims who are involved in the fire environment. A key component to this course will be observations of fire and the products of combustion within scale models.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
303-331  
Credits: 4  
A continuation of the lab training in 303-330 providing the student with the opportunity to expand skills in salad preparation, short-order cookery, bakery helper, ware handler, table service, and busing. An off-campus experience may be provided to develop individual student employment objectives.  
Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: 303-330  
Complete Course Listing  
General College - Reading (838)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  
838-104 Introduction to College Reading  
Credits: 2  
Provides learners with opportunities to develop and expand reading skills including comprehension and vocabulary. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (ASSET Reading Skills, 34 or COMPASS Reading Skills, 051 or ACT Reading, 12 or AccuPlacer Reading Comp, 055 or 858-790)  
Complete Course Listing  
General College:College succes (835)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  
835-103 Student Success  
Credits: 1  
This course provides learners with strategies to develop study skills for success in college. Through hands-on experience, learners will apply study skills, learn how to think critically, and use information resources and technology. Focus will be on college resources, goal setting, and management of time. Students should take this course prior to or during the first semester of their program. This is an Institutional requirement for all students. The online student success class is intended for students taking other online classes. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
835-106 Student Success  
Credits: 3  
This course provides learners with strategies to develop skills for success in college. Learners will apply self management techniques, explore resource management strategies, create a personalized "College Success Tool Kit", and learn about ways to improve personal effectiveness.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
Foods (303)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  
303-330  
Credits: 4  
Orientation and application of entry-level skills in food preparation and service. Communication skills, sanitation and safety practices, and the development of interpersonal relationships are emphasized in the classroom experience, prior to lab work. Modules are self-paced and provide the student with experience in quantity food preparation of soups, salads, and sandwiches, as well as dishroom/busing and table service.  
Aid Code: 31 - One-year Technical Diploma.  
Complete Course Listing
### General College: Comm Skills (831)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

#### 831-103 Introduction to College Writing

**Credits:** 3

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Writing Skills, 38 or COMPASS Writing Skills, 038 or ACT English, 15 or AccuPlacer Sentence Skills, 063 or 851-781) and (AccuPlacer Reading Comp, 055 or COMPASS Reading Skills, 051 or ACT Reading, 12 or ASSET Reading Skills, 34 or 858-790)

Complete Course Listing

### General College: Mathematics (834)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

#### 834-104 Student Success

**Credits:** 2

Develops tools and strategies that support success in the college environment. Focuses on study skills, college resources, goal setting, and management of time required to achieve student’s goal. Introduces academic achievement assessment concepts for self-assessing of learning. Students should take this course prior to or during the first semester of their program. This is an institutional requirement for all students. The online student success class is intended for students taking other online classes. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

#### 834-109 Pre-Algebra

**Credits:** 3

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra related courses. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))

Complete Course Listing

### General Studies (890)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

#### 890-780 BSE Study Skills - College & Vocational

**Credits:** 2

This class is designed to assist new and continuing students in the development of affective and coping skills, and study skills. The students develop a variety of learning strategies including test taking and note taking skills, study skills, computer skills, and organization/time management skills. The course will also include an orientation to campus, information about other support agencies, training in self-advocacy, and development of an individualized educational plan.

**Aid Code:** 78 - ASE Remedial.

Complete Course Listing

### Global Education and Services (140)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

#### 140-101

**Credits:** 3

This elective course is an introduction to the basic concepts of the Spanish language and culture (This course should be taken by those with very little or no knowledge of the Spanish language and prior to taking 801-115 Intercultural Communications for Emergency Personnel).

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

#### 140-102

**Credits:** 3

This is an intermediate level course for emergency services personnel to use the Spanish language in police-related and emergency situations. Also included is an introduction to aspects of Hispanic culture that will help effectiveness in police-related and emergency situations.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** 140-101

Complete Course Listing
Health Education (857)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

857-771 BSE Health, HSED
Credits: 2
Overview of general health practices needed for healthy adult and family living. Allows students seeking a Wisconsin state HSED to meet the requirements of that diploma.
Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

857-780 BSE Health
Credits: 2
This course teaches the basics of health for the individual, family, and community. Mental and emotional health will be discussed as well as first aid, substance abuse, consumer health, environmental health, and death and dying.
Aid Code: 78 - ASE Remedial.
Complete Course Listing

857-781 BSE Health
Credits: 1
This course teaches the basics of health for the individual, family, and community. Mental and emotional health will be discussed as well as first aid, substance abuse, consumer health, environmental health, and death and dying. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*
Aid Code: 77 - ASE Developmental.
Complete Course Listing

Horticulture (001)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

001-302 Landscape Design I
Credits: 1
Students develop basic landscape plans, with emphasis on function, design principals, composition and environmental impact.
Aid Code: 30 - Short-term.
Complete Course Listing

001-303 Horticultural Pest Management
Credits: 1
The study of various types of pest management, methods of control, and safety precautions in their use. Learners may take the Wisconsin Pesticide Applicator exam for Turf & Landscape (& Interiorscape), Commercial Category 3.0, at the completion of the course. Learners will be able to recognize economic and environmental factors involved in making pest management decisions.
Aid Code: 30 - Short-term.
Complete Course Listing

001-304 Landscape Tools and Equipment
Credits: 1
This class provides the learner with the basic skills and knowledge to perform standard maintenance procedures on outdoor power equipment, operate the equipment safely, and make informed buying decisions.
Aid Code: 30 - Short-term.
Complete Course Listing

001-305 Soils and Fertilizers
Credits: 1
This class emphasizes soil identification, evaluation, and factors affecting plant growth. Learners calculate fertilizer rates and employ proper application methods. Students also explore composts and other amendments as they relate to soil preparation.
Aid Code: 30 - Short-term.
Complete Course Listing

001-306 Arboriculture and Turf Management
Credits: 1
Arboriculture is the care of woody plants. Sessions cover the anatomy and functions of trees and shrubs and correct management practices. Problems common to trees and shrubs are presented along with sessions related to property/grounds management career functions. Practice pruning deciduous and evergreen shrubs in the field is offered. Turf management focuses on residential and light commercial lawn care. Species identification, establishment, and care of lawns along with turf problem resolution are covered.
Aid Code: 30 - Short-term.
Complete Course Listing

001-307 Landscape Construction
Credits: 1
Students establish slope, turf, landscape beds and plantings, and construct various hardscapes such as walkways, patios and retaining walls, following design plans. Worksite safety will be emphasized in this hands-on course.
Aid Code: 30 - Short-term.
Complete Course Listing

001-309 Landscape Design II
Credits: 1
Students continue studying design theory and practice begun in Landscape Design I. Principles of composition and design such as sections, elevations, simple perspectives, and color rendering are studied.
Aid Code: 30 - Short-term.
Pre-requisites: 001-302
Complete Course Listing
001-310 Service Business Fundamentals
Credits: 1

Provide an introduction to business fundamentals in a service industry. The class explores the importance of customer service, outlines the steps in business planning, and evaluates ability to become an entrepreneur.

Aid Code: 30 - Short-term.
Complete Course Listing

001-313 Golf and Sports Turf Management
Credits: 1

This course deals with high use turf (real and synthetic) and its specialized problems. Advanced turf management techniques and agronomic practices are presented for large areas such as school athletic fields, park and recreation, golf courses, and estates. Visits to sports fields and golf courses, reel mower sharpening, and large area maintenance equipment are included. Irrigation system basics are also presented along with specialties such as sand traps, pitcher’s mounds, infield, line and logo painting, and water feature considerations.

Aid Code: 30 - Short-term.
Complete Course Listing

001-317 Herbaceous Plants
Credits: 1

Identification of various annuals and perennials and their appropriate uses for Wisconsin landscapes is covered in this class. Cultural practices necessary to maximize their value to the landscape are studied.

Aid Code: 30 - Short-term.
Complete Course Listing

001-322 Landscape & Environment
Credits: 1

This course will examine current issues in the green industry with an emphasis on environmentally sound and safe methods, and also review alternatives to traditional landscaping options.

Aid Code: 30 - Short-term.
Complete Course Listing

001-324 Plant Propagation
Credits: 1

Starting and growing plants from seeds, cuttings, divisions, layering and grafting are covered in this course. Information on growing structures, environmental controls, and cultural practices are explored along with marketing and merchandising.

Aid Code: 30 - Short-term.
Complete Course Listing

001-330 Weeds and Invasive Species
Credits: 1

Students create a weed reference book for various landscape settings while learning plant identification techniques and examining live and preserved samples. The course is very useful for those considering enrolling in Horticultural Pest Management and for those interested in any career related to Integrated Pest Management (IPM) concepts.

Aid Code: 30 - Short-term.
Complete Course Listing

001-331 Plant Health Management
Credits: 1

The course covers diseases and insects common to herbaceous and woody plants found in lawns, flower and vegetable gardens, landscapes, nurseries, and unmanaged native areas. Field trips and reports aid in identification and diagnosis of plant health care issues. Very useful for those considering enrolling in Horticultural Pest Management and for those interested in any career involving plant health.

Aid Code: 30 - Short-term.
Complete Course Listing

001-332 Woody Ornamentals - Trees
Credits: 1

Students learn about commonly used landscape trees, with an emphasis on newer and better varieties. Students learn to identify 20-30 trees from twig and leaf samples in a weekly plant lab. Students take short field trips to look at trees in landscape environments and examine their cultural needs and possible disease and insect problems with an eye to choosing the "right plant for the right place.

Aid Code: 30 - Short-term.
Complete Course Listing

001-333 Woody Ornamentals - Shrubs
Credits: 1

We will be learning about some of the commonly used landscape shrubs, with an emphasis on newer and better varieties. There is a weekly plant lab where we learn to identify 20-30 shrubs from twig and leaf samples. We will take short field trips to look at shrubs in landscape environments. We will also examine these plants' cultural needs, possible disease, and insect problems, with an eye to choosing the "right plant for the right place.

Aid Code: 30 - Short-term.
Complete Course Listing

001-334 Internship
Credits: 2

In this 2 credit internship students obtain hands-on experience through on-the-job training in the horticultural/green industry fields. Students must have successfully completed 8 credits of program courses before taking the internship. Internship placements are not allowed in the instructors' or other students' businesses. If the student has an existing business qualified clients can sometimes be used.

Aid Code: 30 - Short-term.
Pre-requisites: Need Dean Approval
Complete Course Listing

Human Resources (116)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
116-102 Training and Development
Credits: 3
This course explains the fundamentals of training and development coordination. It includes terminology, levels of learning, matching training providers with organizational needs, organizing materials and environments to maximize learning, measuring completion of objectives, and communication with employees. Through a simulation, teams will assess learning needs, develop training plans and objectives, create a training plan, use the plan to train the class on a new skill or process and then assess the transfer of knowledge afterwards. This course is a pre-requisite for Human Resource Practicum 116-138.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-103 Employment Law
Credits: 3
This course introduces and explores legal issues concerning employment and their effect on the workplace. Through in-depth case analyses, oral presentations and debates, learners will examine the intricacies of Federal and Wisconsin Equal Employment Opportunity laws. Topics include legislation and Supreme Court decisions related to civil rights, age discrimination, disabilities, pay equity, affirmative action, etc.
Aid Code: 10 - Associate Degree.
Pre-requisites: (801-195)
Complete Course Listing

116-108 Health and Safety
Credits: 3
Learners will analyze the safety and health issues affecting today's business organizations in a variety of industries. OSHA and EPA regulations and reporting will be explored and applied to hypothetical situations. Learners will examine security issues in the workplace and present mitigation methods. Learners conduct research on a specific safety topic and make a presentation based on their research. Upon completion, learners will be prepared to test for OSHA 10 hour certification.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-115 Compensation and Benefits
Credits: 3
This course focuses on the compensation and benefit elements that make up a total rewards system and how an organization utilizes these elements to be competitive in their market. Learners will create a compensation structure and propose benefit programs. Focus will be on the major categories of benefits, including planning and administration, regulation compliance, insurance, retirement plans, paid time off, etc. This course is a pre-requisite for Payroll Administration 116-137 and Human Resource Practicum 116-138.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-116 Staffing Organizations
Credits: 3
Learners will explore best practices in recruitment, retention, interviewing, selection, and hiring as it applies to an organization's staffing needs. Learners practice the skills necessary for interviewing individuals in a variety of settings. Behavior-based questioning is emphasized. This material supplements the legal aspects of the employment process. This course is a pre-requisite for Human Resource Practicum 116-138.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-119 Labor Relations
Credits: 3
Learners are introduced to the history of the American Labor force and explore specific laws concerning the regulation of employment. Through discussions and case analyses, students interpret the legal requirements and restrictions for labor and management. Topics explored include the legalities of union certification and de-certification, negotiation and administration of labor agreements, strikes, lockouts, mediation, and arbitration. Learners will author contract proposals, negotiate changes to an existing labor agreement, and learn to administer specific labor contract language.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-137 Payroll Administration
Credits: 3
Learners will apply payroll concepts within the context of a business. Learners will also interpret financial statements and prepare hypothetical budgets. The topics covered include the following: maintaining payroll records; taxable benefits; statutory and other deductions; preparation of payroll journal entries; government reporting; computerized payroll systems. The learner will be prepared to take the Fundamental Payroll Certification test upon completion through the American Payroll Association.
Aid Code: 10 - Associate Degree.
Pre-requisites: (116-115 or 196-115)
Complete Course Listing

116-138 Human Resource Practicum
Credits: 3
Learners further develop their HR knowledge and skills by working with HR professionals to complete human resource projects for area organizations. The students are provided actual HR related projects from local organizations. Project management tools are applied to the project for effective results. This course is the HR program capstone and requires the following pre-requisite courses: 116-193, 116-116, 116-102, 116-115.
Aid Code: 10 - Associate Degree.
Pre-requisites: (116-102 or 196-102) and (116-115 or 196-115) and (116-116 or 196-116) and (116-193 or 196-193)
Co-requisites: (116-152)
Complete Course Listing
116-152 Talent Management
Credits: 3
This course focuses on facilitating improvement or correction of employee performance. Through a simulation, learners will create an on-boarding program, an employee handbook, and performance evaluation methods. Techniques will be practiced concerning effective communication, an investigation, coaching skills, career counseling, termination, facilitating change in work procedures, and managing the conflict that often results from change. Staffing Organizations 116-116 is a pre-requisite.
Aid Code: 10 - Associate Degree.
Pre-requisites: (116-116)
Complete Course Listing

116-168 Organizational Development
Credits: 3
This course introduces the learner to the different motivational mechanics that affect individuals, teams, and organizations. Focus is placed on understanding individual differences and how they are manifested within an organization. Learners will compare leadership theories, power and organizational structures, organizational cultures, and decision-making processes. Communication during workplace changes and career management is practiced and explored.
Aid Code: 10 - Associate Degree.
Complete Course Listing

116-193 Human Resource Management
Credits: 3
This course establishes the foundation for effectively managing people in an organization. All of the Human Resource functions are examined such as: Recruitment, Interviewing and Selection, Orientation, Training, Performance Review, Compensation and Benefits within the context of a typical business. Learners explore labor forecasting and strategy and analyze impacts on the organization. This course is a pre-requisite for Human Resource Practicum 116-138.
Aid Code: 10 - Associate Degree.
Complete Course Listing

Human Services (520)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

520-101 Community Resources and Services
Credits: 3
This course will introduce the learner to a wide variety of community agencies, resources, and programs. The functions, funding, clients served, eligibility requirements, and referral procedures of the agency will be explored. Learners will have a chance to participate in site visits and learn about various agencies through guest speakers.
Aid Code: 10 - Associate Degree.
Complete Course Listing

520-102 Introduction to Gerontology
Credits: 3
The learner will identify basic theories and facts about the aging process and will analyze the psychological and sociological experience of the older adult population. Learners will be able to apply this knowledge towards methods and techniques for serving the aged.
Aid Code: 10 - Associate Degree.
Complete Course Listing

520-103 Interviewing Principles & Documentation
Credits: 3
The learner develops techniques for interviewing and applies record-keeping skills as practiced in human services agencies. Skills to be practiced include social history and summary recording, case assessment and management, as well as intervention plan development.
Aid Code: 10 - Associate Degree.
Complete Course Listing

520-104 Racial and Cultural Diversity in Human Services
Credits: 3
This course examines the importance of understanding diversity in mental health careers and the helping professions. The learner analyzes culturally-based, help-seeking behaviors among racial, ethnic, and other sub-populations. General diversity issues are also presented in order to aid students in developing cultural competence in the helping professions.
Aid Code: 10 - Associate Degree.
Complete Course Listing

520-105 Intro to Addiction and Substance Abuse Disorders
Credits: 3
The learner examines the history of drug use along with the changing historical trends of abuse. The learner will explore various types of addictions and how they are similar and dissimilar to chemical addictions. Learners will analyze the biology of psychoactive drugs and how they can cause addiction.
Aid Code: 10 - Associate Degree.
Complete Course Listing

520-106 Professional Practices in Human Services
Credits: 3
This course prepares learners to enter the human services profession and abide by a working knowledge of professional codes of ethics. Learners will explore social/ethical issues that impact the profession. Professional credentialing, continuing education, and maintaining vitality within the field will be analyzed.
Aid Code: 10 - Associate Degree.
Complete Course Listing
520-107 Field Experience / Human Services 1  
Credits: 3

Learners develop skills as human services workers by working directly or indirectly with clients through placement in a local social services agency under professional supervision. Students will gain experience through on-the-job training by integrating human services theories and professional skills. Students will explore job responsibilities that relate to a human services agency including client/staff interaction and employee accountability.

Aid Code: 10 - Associate Degree.  
Pre-requisites: (520-100) and (520-106)  
Complete Course Listing

520-108 Children and Family Services  
Credits: 3

This course introduces the learner to the human service professional’s role when working with children, families and groups. Issues impacting the family system will be analyzed, including child abuse, divorce, mental health, juvenile delinquency, bereavement and physical health problems.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

520-109 Group Facilitation  
Credits: 3

The learner develops skills and techniques needed to lead informational and supportive groups. Various counseling approaches and their application to group work will be identified along with the developmental stages of groups.

Aid Code: 10 - Associate Degree.  
Pre-requisites: (520-100) and (520-103)  
Complete Course Listing

520-110 People with Disabilities  
Credits: 3

This course prepares students to work with individuals and families impacted by disabilities. The learner explores a variety of disabilities and issues common to persons with disabilities. Students apply methods and techniques to work with this sub-population.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

520-111 Field Experience / Human Services 2  
Credits: 3

The learner is given the opportunity to demonstrate understanding of more advanced social work skills and techniques used in the field. Learners examine the operations of a human services agency including client/staff interaction and employee responsibilities. Learners will be able to apply the experience gained in this course with what they have learned in the program to enter the profession as an entry-level human services worker.

Aid Code: 10 - Associate Degree.  
Pre-requisites: (520-107)  
Complete Course Listing

520-112 Human Services Organizational Operations  
Credits: 3

This course focuses on characteristics and functions of human services organizations and the roles of human service workers in those organizations. Learners apply their skill in organizational assessment methods, planning, budgeting, grant writing, evaluation and consulting – all part of the Human Service Profession.

Aid Code: 10 - Associate Degree.  
Pre-requisites: (520-100) and (520-107)  
Complete Course Listing

520-113 Rehabilitation Services  
Credits: 3

This course gives the learner a fundamental knowledge base in the drug and alcohol addiction field. Learners examine information about pharmacology, self-help groups, levels of care, symptom identification and assessments. Through the use of case studies the student applies knowledge and skills towards serving those in need of rehabilitation services.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

520-114 Victimology  
Credits: 3

This course will provide the student with an analysis of how human services and criminal justice professionals, regardless of their role, come in contact with victims of crime. It will examine criminal victimization in the United States via an overview of current theory, research, and trends of victimization. It will analyze specific crimes types, the impact of crime on victims and society, the role of victims within the criminal justice system, specific remedies, and victim rights and services. It will explore victimization with a context of current events and local models of crime victim services.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

Industrial Engineering Tech (623)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

623-121 Engineering Drawing and Measurement  
Credits: 3

This self-paced course provides the foundation skills needed to interpret industrial blueprints and perform basic metrological measurements. Orthographic projection, pictorial drawings, sections, auxiliary views, dimensions and tolerances, title blocks, revisions, basic GD&T symbols, and similar topics are covered. Students will also examine measurement concepts as they apply to the manufacturing environment, and perform hands-on activities using precision measuring tools.

Aid Code: 10 - Associate Degree.  
Complete Course Listing
The health and safety of employees within Industrial and Manufacturing facilities has been a major concern for industry across the country. How the physical tasks within a job duty are performed can impact the health of an employee. The setup of a manufacturing line, the process of material handling or the procedures to follow when working within a facility must be considered for safety and health. In Ergonomics and Workplace Safety you will identify factors that can lead to musculoskeletal disorders (MSDs), analyze and suggest improvements to job hazards on an employee's workstation, look at costs and benefits of ergonomic improvements and investigate accident reports for causes and problems related to work safety.

**623-166 Industry and Quality Control**

Credits: 3

This self-paced course is an overview of quality issues in the modern industrial environment. Topics include basic quality concepts, sampling and inspection, fundamentals of measurement, statistical tools, quality policies and costs, improvement projects, and comparisons of popular quality philosophies.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

**623-170 Industrial Organization and Structure**

Credits: 3

This course examines the structure of the modern manufacturing organization, and provides an overview of the interrelationship between the various functional departments and their activities. Historical background, management philosophy, planning and control requirements, labor, and human aspects of the organization are discussed.

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

**623-192 Process Planning**

Credits: 3

A study is made of the principles, practices, and techniques of process planning. Using the part drawing, the student learns through systematic analysis to select the most practical and economical processes and to determine the properly sequenced series of operations to transform materials into useful products. The students also select the type of tooling and equipment needed in terms of materials, quantity, tolerances, and surface quality requirements.

**Pre-requisites:** 623-121

Complete Course Listing

**623-196 Standards and Regulations**

Credits: 1

This self-paced course provides an overview of state and federal standards and regulations governing workplace safety and the environment. Students will learn to recognize hazards and identify applicable regulations. Emphasis is on locating standards in the code of federal regulations (CFR), applying safety and environmental standards in the workplace, and interpreting material safety data sheets (MSDS).

**Aid Code:** 10 - Associate Degree.

Complete Course Listing

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**Industrial Equipment Mechanic (462)**

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
462-301 Electrical Fundamentals
Credits: 3
This course is designed to introduce students to the basic concepts of DC electricity, single phase AC electricity, and three phase AC electricity. Students demonstrate proper safety procedures while examining basic electrical components such as resistors, capacitors, inductors, switches, indicators, relays, and basic test equipment. Students will be able to analyze and construct circuits, measure voltage, current, resistance, capacitance, and inductance as they apply to circuits.
Complete Course Listing

462-302 Electrical Control System
Credits: 3
In this course, students apply the basic principles related to electro-mechanical systems, as well as motors, transformers, frequency drives, and various electro-mechanical devices in order to enhance control systems. Students will be able to construct and troubleshoot starter and control circuits, utilizing both line and low voltage circuits. This course covers the fundamentals of National Electrical Code wiring, soldering, relay ladder logic, and lock-out-tag-out procedures.
Complete Course Listing

462-303 Programmable Logic Controllers
Credits: 4
This course is designed to introduce students to the basics of Programmable Logic Controllers (PLC’s) used in industry. PLC’s in both the online and offline modes, as well as ladder logic, logic gates, Boolean equations and truth tables will be explained and utilized in course demonstrations. While practicing proper safety procedures, students will examine discrete and analog input and outputs, hardware sensor interfacing and troubleshooting techniques, so they can program PLC’s using timer, counter, latch, data movement, sequencing, and other instructions.
Complete Course Listing

462-304 Electro-Mechanical Prints
Credits: 2
This course illustrates for students the basic symbols related to electro-mechanical prints. Students will analyze and interpret electro-mechanical prints and line diagrams to understand the sequence of operations and troubleshoot systems.
Complete Course Listing

462-306 Machining Prints
Credits: 2
This course is designed to illustrate the basics of machining prints. Students will be able to breakdown machining prints and model isometric sketches as well as interpret orthographic projection drawings which include sections, auxiliary views, threads, fasteners, surface finishes, geometric dimensions, tolerances, and assembly points.
Complete Course Listing

462-307 Maintenance Milling
Credits: 3
This course is designed to outline for students the basics of milling fabrication processes that are common to the industrial maintenance field. Through demonstration and practice, emphasis will be placed on knowing the machine parts, their function, and performing simple milling operations for the student. Students will be able to demonstrate the basic use of mills, related safety, maintenance, metal cutting theory, cutting tools, and work holding for the mill.
Complete Course Listing

462-308 Industrial Maintenance Metallurgy & Metrology
Credits: 2
This course emphasizes the basics of metallurgy and metrology. The properties of iron and metals, testing and heat treating of metals, steel designations, and cast iron as well as non-ferrous metals are examined. Through the integration of mathematic skills, students will demonstrate the use of semi-precision measuring tools such as steel rules and screw thread gauges, as well as precision measuring instruments such as micrometers, go/no go plug gauges, go/no go thread gauges and assorted calipers.
Complete Course Listing

462-309 Lathe Fabrication Processes
Credits: 3
This course is designed to outline for students the basics of lathe fabrication processes that are common to the industrial maintenance field. Students will practice the basics of metal turning techniques. Students will engage in the basic use of lathes, associated processes, while adhering to related safety standards as well as demonstrating the ability to work with lathe tools, and addressing maintenance issues.
Complete Course Listing

462-311 Fluid Systems
Credits: 4
Students in this course will investigate the theory of fluid power. Common fluid principles will be analyzed and the basic system of the hydraulic unit will be the focus. Students will explore the theory of fluid pumping applications common in industry. While incorporating troubleshooting techniques, maintenance, filtration and safety procedures, students will be able to perform the construction of fluid systems including the basic plumbing, layout, cutting, threading, and installation of systems.
Complete Course Listing
462-312 Pneumatic Systems
Credits: 3
This course is designed to inform students of the basics of pneumatics, while analyzing the advantages, disadvantages and inherent problems of this system. While incorporating safety principles, students will analyze the various parts of a pneumatic circuit for their use, which includes: examining the main parts of a pneumatic system, evaluating the characteristics of physical laws that apply to pneumatics, summarizing the laws governing pneumatics, identifying air conditioning and distribution equipment, adjusting pressure regulators to specified pressure, evaluating the characteristics and terms of pressure drop versus flow relationship, as well as the characteristics and terms of vacuum generation. Pneumatic safety principles will be introduced.

Complete Course Listing

462-313 Facility Prints
Credits: 3
This course focuses on basic facility print reading fundamentals, and students will engage in understanding, interpreting, and utilizing architectural drawings and symbols. Students will visualize facility structures and interpret elevations, plan views, details, and sections from drawings as well as interpreting building specifications. This course will emphasize students’ ability to analyze and interpret facility prints.

Complete Course Listing

462-314 Maintenance Management
Credits: 2
Students in this course will engage in basic maintenance management and customer service skills. The basic principles of maintenance management and quality control are explored and practiced by students. Students will perform the duties of maintenance record keeping, ordering parts, shop operation, and customer service principles for both internal and external customers.

Complete Course Listing

462-316 Conveyor Systems
Credits: 3
In this course, students examine multiple facets of different conveyor systems, including the screw, flat belt, and roller conveyor. While incorporating conveyor safety procedures, students will investigate the different systems used to make up an effective belt conveyor and be able to apply standard applications, preventive maintenance, and repair principles.

Complete Course Listing

462-317 Basic Welding for Industrial Maintenance
Credits: 3
This course is designed to acquire the skills needed to perform routine welding repairs in the maintenance profession. Safety procedures, layout and measuring, oxy-acetylene welding, oxy-acetylene brazing and cutting, shielded metal arc welding (SMAW), and gas metal arc welding (GMAW) will be explored and practiced.

Complete Course Listing

462-318 Mechanical Power Transmission Systems
Credits: 3
This course is designed to engage students in the applications of gears, belts bearings, chain drives, and lubrication processes used in industry. Students will interpret the basic industry standard principles of operation, installation, preventive maintenance, and repair procedures of these components. Industry safety procedures will be examined and practiced throughout the course.

Complete Course Listing

462-319 Valves, Gaskets, Seals
Credits: 1
Students will examine and practice standard procedures related to installing, maintaining, and replacing valves, gaskets, and seals in industry applications. Students will be able to perform these procedures while adhering to industry safety standards.

Complete Course Listing

462-321 Machine Setup and Installation
Credits: 3
This course is designed to examine standard applications of rigging, machine leveling, alignment of shafts, couplings, bearings, and machines which are common to industry. Students will be able to perform several leveling and alignment procedures and the common components used to lift and move machinery and equipment while practicing standard safety procedures.

Complete Course Listing

462-322 Human Relations in the Industrial Setting
Credits: 2
This course is designed to give students insight into how an individual’s behaviors and abilities affect their relationships with others at work and with customers. Areas stressed include presenting a professional image in seeking employment, developing a positive work attitude, reliability on the job and an awareness of personal adjustments needed to succeed in the workplace. During this course, students will engage in an internship opportunity on or off campus.

Complete Course Listing

462-315 Introduction to Programming with JavaScript
Credits: 3
Teaches the basic concepts of programming using the JavaScript language. Topics include: embedding JavaScript in HTML, event-driven programming techniques, program control logic, pseudocode, and an introduction to object-oriented programming.

Aid Code: 10 - Associate Degree.
Pre-requisites: (631-111)
Complete Course Listing
152-133 Advanced Systems Documentation
Credits: 3

This lecture/lab course will focus on technical writing and documentation skills. Hands-on work will include writing and editing business letters and memos, persuasive documents, technical reports and HTML documentation. The course will culminate in a short research paper and oral presentation.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-127)
Complete Course Listing

152-139 Current Issues and Trends in Information Technology
Credits: 3

Current Issues & Trends is a course designed to cover a "hot" computer area. Possible topics include: advanced applications; object orientated programming; computer security, computer ethics; and Internet programming.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-119) and (152-157) and (152-163)
Complete Course Listing

152-142 Introduction to .NET Programming
Credits: 3

This lecture/lab course uses the Visual Basic .NET (VB.NET) and/or C# programming language to teach problem-solving principles and demonstrates how to apply said principles in the development of algorithms designed to solve typical business problems. Structured programming (sequence, selection, and iteration) utilizing pseudocode is covered in detail. Introductions to database concepts, database design, and object-oriented programming (OOP) are also given. 152-119 Learning to Program with Java Script is a recommended pre requisite.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-119) and (152-157) and (152-163)
Complete Course Listing

152-143 Introduction to Java Programming
Credits: 3

Introduction to Java Programming introduces programming and object-oriented design concepts using the Java programming language. Students examine Java programming basics and use a text editor in a development environment. Design concepts and programming tools will be integrated with an emphasis on practical business solutions.

Aid Code: 10 - Associate Degree.
Pre-requisites: 152-119
Complete Course Listing

152-145 Advanced Java Programming
Credits: 3

This course is a continuation of Introduction to Java Programming. Students will further analyze inheritance, exception handling, files, database access, advanced GUI applications and array lists.

Aid Code: 10 - Associate Degree.
Pre-requisites: 152-143
Complete Course Listing

152-147 Relational Database Development
Credits: 3

Relational Database Development is a lecture/lab class split into two parts: 1) A general overview of database theory, including: relational database management systems (RDBMSs) and normalization. 2) The fundamentals of the structured query language (SQL) data definition language (DDL) and data manipulation language (DML) commands, utilizing client/server based database software. For IT-Web Analyst/Programmer students, 152-163 (Relational Database Design) is a recommended pre req for this course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-163) and (804-133)
Complete Course Listing

152-148 Relational Database Coding
Credits: 3

Students will engage in hands-on training, utilizing a relational database management system (e.g., MySQL) in a client/server web based environment which uses PHP on the server side. Students will analyze advanced structured query language (SQL) commands and concepts, and web site development utilizing the PHP programming language.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-157) and (152-182)
Complete Course Listing

152-149 Secure Coding
Credits: 3

Secure coding involves concepts such as: 1) The validation of computer program input. 2) The heeding of computer compiler warnings. 3) The internal and external sanitization of any and all computer program data. 4) The adherence to the principle of least privilege. 5) The adoption of a secure coding standard. The Secure Coding course will teach students how to adhere to practices such as these and others to build secure code from the onset of an information technology project.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-148) and (152-158) and (152-161)
Complete Course Listing

152-150 Systems Analysis and Design
Credits: 3

Systems Analysis & Design is a lecture/lab course for second year students, intended to introduce the concepts involved in a small- to-medium sized information systems project from inception to implementation. Traditional analysis and design methodologies as well as object-oriented methodologies will be covered. Throughout the life cycle of the analysis and design process, Microsoft Project will be used. Students will use Microsoft Visio as a tool to diagram various components of the system during the analysis phase. Additional concepts covered will be verbal and written communication with users and team members, professional behavior, professional attire, problem identification, and problem solving. Systems Analysis and Design will draw on knowledge obtained from previous classes, and require the student to synthesize and apply that knowledge.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-127)
Complete Course Listing
Complete Course Listing

152-153 Mobile Web App Development - iPhone
Credits: 3

Students in this course will analyze the basics of creating Mobile Web applications for an iPad/iPhone. The basics of the Objective-C language are presented, and students will engage in building an actual working iPhone/iPad application.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-148) and (152-158) and (152-161) and (152-145)
Complete Course Listing

152-156 Mobile Web App Development - Android
Credits: 3

This course examines the basics of creating Mobile Web applications for an Android phone. The associated android basic programming constructs defined, using the Java programming language. Students will build an actual working Android application.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-148) and (152-158) and (152-145)
Complete Course Listing

152-157 Website Development-XHTML/CSS
Credits: 3

Website Development - XHTML/CSS is a beginning class in client-side Web development. Topics covered include: The fundamentals of the Hypertext Markup Language (HTML) and XHTML, Cascading Style Sheets (CSS), an introduction to JavaScript.

Aid Code: 10 - Associate Degree.
Pre-requisites: (631-111)
Complete Course Listing

152-158 Advanced Website Development
Credits: 3

In this course, students will engage in the development of client-side web sites using frameworks such as Bootstrap to simplify development, allow development of responsive web sites, and greatly increase the appeal and functionality of the site. Students will analyze other concepts which include Content Management systems, such as Git and Github.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-182)
Complete Course Listing

152-161 Web Application Development Using ASP.NET
Credits: 3

Students develop Microsoft ASP.NET applications that deliver dynamic content to the Web. An emphasis is placed on server-side programming and the role ASP.NET plays. As part of this course, students create Web forms with server controls, display dynamic data from a database using Microsoft ADO.NET, read XML configuration files and learn to debug ASP.NET web pages.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-147) and (152-167)
Complete Course Listing

152-163 Relational Database Design
Credits: 3

Relational database design is a beginning course in database concepts and design, utilizing Microsoft Access. Students will design, normalize and develop a database and program the associated interface in a realistic environment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (631-111)
Complete Course Listing

152-164 Design and Implementation Projects
Credits: 3

This capstone course is designed to have the student utilize all concepts learned in this program in a real world application setting. Students work with a team to develop an integrated Information Solution for a large scale project. Students will be involved in defining their own skills in both technical and cooperative team interaction areas.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-161) and (152-148) and (152-145)
Complete Course Listing

152-167 AJAX and JavaScript Website Development
Credits: 3

Students in this course are introduced to the basics of DHTML, JavaScript, and the XmlHttpRequest call. Students create web sites using JavaScript and AJAX to enable them to be responsive and feature-rich.

Aid Code: 10 - Associate Degree.
Pre-requisites: (152-157) and (152-163)
Complete Course Listing

152-181 Supervisory Occupational Experience-Web Analyst
Credits: 2

Micro Programmer Internship prepares student for the transition from the classroom to the work place. Students will be employed in actual jobs in their field. They will use this opportunity to apply learned concepts and skills in practical situations and acquire the knowledge and experience of current techniques, methods, and theories in a data processing environment. The intern's progress will be monitored and evaluated by the sponsoring employer and a BTC Internship Advisor. The desired outcome of the course is to qualify the student for eventual employment in an entry-level IT position.

Aid Code: 10 - Associate Degree.
Pre-requisites: 152-150
Complete Course Listing

152-182 Web Analyst Field Study
Credits: 1

The Web Analyst Field Study is a course designed to equip the student with the skills necessary to plan and execute an active job search. Topics covered include: resumes; personal data files; letters of application; and interviewing techniques. Students will prepare a strategy for finding and obtaining a position that best fits their goals and interests. Students will also cover the organization of a typical data processing department.

Aid Code: 10 - Associate Degree.
Co-requisites: (152-147) and (152-142) and (152-137)
Complete Course Listing
152-191 Secure e-Commerce Concepts  
Credits: 3

This course is a review of Internet/Worldwide Web/e-Commerce concepts, including Internet development, internetworking principles, Internet services, Web programming, site administration, and business and security concepts, including both human and technological factors.

**Aid Code:** 10 - Associate Degree.  
**Complete Course Listing**

152-192 Designing Secure Websites  
Credits: 3

This course is designed to educate students about the security issues of the Worldwide Web, Web servers and Web applications. The learner will be introduced to client and server-side security principles and programming. At course completion, the student will be able to define, design and implement a secure Web site. Successful completion of 152-191 “Secure e-Commerce Concepts” is highly recommended prior to this course.

**Aid Code:** 10 - Associate Degree.  
**Complete Course Listing**

152-193 Client/Server Systems Security  
Credits: 3

This course provides an overview of the most critical topic in the Information Assurance arena: secure data exchange between internetworked systems. Topics include client/server security system design concepts; developing a database security and audit plan; system design and development; user-, group-, and application-level permissions; data integrity enhancement and maintenance; and the role of the database administrator. A methodology for anticipating, detecting, reacting to, and response to network attacks will be a significant part of the course material.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (150-151 and (152-143)  
**Co-requisites:** 150-151 or 152-143)  
**Complete Course Listing**

### IT-Microcomputer Specialist (154)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

154-113 Desktop and Server Hardware  
Credits: 3

This is a lecture/hands-on course designed to teach students desktop and server hardware fundamentals. Topics include: hardware identification and specifications, basic desktop/server setup, installation of desktop/server operating systems, manual installation of driver software, and desktop/server hardware installation and troubleshooting.

**Aid Code:** 10 - Associate Degree.  
**Complete Course Listing**

154-121 Information Technology Helpdesk and Customer Service  
Credits: 3

This course will explore the fundamentals of customer service required in order to successfully satisfy customer technology needs. Topics included in this course will be techniques for positive communication, effective listening skills, dealing with difficult customers as well as developing proficiency in time and stress management. Troubleshooting hardware, software, and basic networking problems will also be a focus of this course.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (154-120) and (150-130) and (154-113)  
**Complete Course Listing**

### IT-Networking & Info Security (150)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

150-113 Computer Forensics  
Credits: 3

This is a lecture/hands-on course designed to teach students desktop and server hardware fundamentals. Topics include: hardware identification and specifications, basic desktop/server setup, installation of desktop/server operating systems, manual installation of driver software, and desktop/server hardware installation and troubleshooting.

**Aid Code:** 10 - Associate Degree.  
**Complete Course Listing**

150-117 Local Area Network Switching and Wireless  
Credits: 3

LAN Switching and Wireless is a lecture/lab course in which students build multi-platform and multi-protocol networks. Topics include: IPv6, installation and configuration of VLANs, multi-layer switches, routers, interior gateway routing protocols, and enterprise wireless solutions.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** 150-131  
**Complete Course Listing**

150-118 Server and Data Center Virtualization  
Credits: 3

Server and Data Center Virtualization is a lecture/lab course that will introduce advanced topics in server virtualization and SANs. Students will configure vNetwork standard switches, install and configure VMWare ESXi, manage shared storage, deploy virtual servers in an enterprise environment. They will also engage in the back up, recovery, and migration of virtual machines.

**Aid Code:** 10 - Associate Degree.  
**Pre-requisites:** (150-127)  
**Co-requisites:** (150-128)  
**Complete Course Listing**
150-120 Configuring Desktop Operating Systems  
Credits: 3

Configuring Desktop Operating Systems is a lecture/hands-on course designed to teach the configuration of desktop operating systems. Topics include operating system installation and troubleshooting, configuration, sharing and file system permissions, and users, groups, profiles, and policies. An introduction to the use of VMware Workstation is also provided to enable students further practice with operating system configurations learned in class.

Aid Code: 10 - Associate Degree.
Complete Course Listing

150-127 Introduction to Enterprise Virtualization  
Credits: 3

This lecture/hands-on course concentrates on using Enterprise Virtualization and administering Network Operating Systems such as Windows Server. Topics include: enterprise virtualization, server administration, network administrator responsibilities, login security, file system security and design, Active Directory, user administration and client installation, configuration, troubleshooting, and print management.

Aid Code: 10 - Associate Degree.
Pre-requisites: 150-120
Complete Course Listing

150-128 Windows Enterprise Server Administration  
Credits: 3

Windows Enterprise Server Administration is a lecture/lab course designed to introduce advanced Windows Server administration. The student will learn GPOs, Active Directory Design, DFS, Terminal Services, CA configuration, IIS, VPNs, DHCP, DNS, software deployment, PowerShell, and utilities like NTDSutil.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-127)
Co-requisites: (150-118)
Complete Course Listing

150-130 Introduction to Enterprise Networks  
Credits: 3

Intro to Enterprise Networks is a lecture/hands-on lab course designed to introduce students to configuring protocols and devices needed for network communication. Topics covered include: OSI Reference Model; LAN/WAN topologies; cabling systems; access methods; protocols; ip addressing; introduction to various network clients; use of network devices (switches, routers); fundamentals of network design; and basic troubleshooting tools.

Aid Code: 10 - Associate Degree.
Complete Course Listing

150-131 Routers and Routing Protocols  
Credits: 3

Routers and Routing Protocols is a lecture/lab course that is designed to introduce the student to routing and switching infrastructures, basic Cisco router and switch configurations, troubleshooting methodologies, OSI 7 layer concepts, integration of basic network components, and integration of desktop and server-based operating systems with infrastructure in an enterprise network.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-130) and (150-146)
Complete Course Listing

150-132 IT-Project Management  
Credits: 3

This is a capstone project course, for second year students, that culminates the experience of the two-year program. The focus will be an integration of all of the networking skills acquired throughout the program with hands-on applications including problem-solving, troubleshooting, and technical documentation. Network troubleshooting, server design, network analysis, network design, security, recovery models, project management, network planning, and business models relating to computer networking and IT will be stressed.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-117) and (150-128) and (152-150)
Complete Course Listing

150-133 Network Security  
Credits: 3

This course introduces learners to the fundamentals of network security. The course covers various topical areas involved in network security, including security topology, intrusion detection, device configurations, access lists, authentication, and encryption. Different methods of attacks, such as viruses, Trojan horses, and worms are also reviewed. This course also introduces wireless security concepts.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-130) and (150-151)
Complete Course Listing

150-134 Internetwork Security  
Credits: 3

This course covers how to secure internetworked information systems (i.e., those connected by hubs, switches, routers, etc.), including defense against methods used by hackers to enter dedicated systems. Topics covered include confidentiality, integrity and reliability; user and group authentication; authorization and accounting; encryption replication; and security enhancement features.

Aid Code: 10 - Associate Degree.
Pre-requisites: (150-133) and (150-135)
Complete Course Listing

150-135 Operating Systems Security  
Credits: 3

Students will cover the essentials of securing popular operating workstations and networks. Topics include authentication, group security, remote access security, security file resources, Internet Protocol security, and more. Active Directory and similar topics are also covered.

Aid Code: 10 - Associate Degree.
Complete Course Listing
150-136 Perimeter Security  
Credits: 3  
This course covers internetworked systems security management and configuration, integrated system security software, configuring network access servers for enhanced security, and an understanding of systems security support and management. Students will learn how to use Active Directory, or a similar service, to create and maintain secure perimeters within a network.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-134  
Complete Course Listing

150-139 Current Issues in Networking  
Credits: 3  
Current Issues & Trends is a course designed to cover a "hot" computer area. Possible topics include: advanced applications; object orientated programming; computer security; computer ethics; and Internet programming.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

150-140 Data and Control Structures  
Credits: 3  
Data and Control Structures is a lecture/hands-on course designed to teach students to think the way that the computer thinks and how data is stored and retrieved. Topics include: structured programming (i.e. sequence, selection, and iteration), database design, query building, form design, and report design.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-120  
Complete Course Listing

150-141 Linux  
Credits: 3  
Linux is a lecture/hands on course designed to teach basic Linux commands and system administration. Linux desktop operating system installation, users, groups and file security will be examined. Linux server installation, configuration, troubleshooting and security topics will also be addressed.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-127  
Complete Course Listing

150-142 Advanced Local Area Network/Wide Area Network Topics  
Credits: 3  
Advanced LAN/WAN Topics is a lecture/lab course. Topics include configuring and troubleshooting WAN protocols, BGP, QoS, HSRP, Secure Routing, RADIUS and TACACs Servers, VPNs, Firewalls, and Access-Lists.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-117  
Complete Course Listing

150-143 Exchange and SQL Server  
Credits: 3  
Exchange and SQL Server is a lecture/hands-on course that is designed to introduce the student to Microsoft Exchange Server and Microsoft SQL Server Administration. Topics include: SQL Server installation, Exchange Server installation, Exchange and SQL configuration, managing the directory, managing distribution lists, managing information stores, writing advanced SQL queries, database design, normalization, and backing up and restoring Exchange and SQL Servers.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-128  
Complete Course Listing

150-144 Introduction to Enterprise Networks-1  
Credits: 1  
Intro to Enterprise Networks-1 is designed to introduce students to basic network concepts. Topics covered include basic terminology, the OSI Reference Model, network protocols, and an introduction to network device configuration.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

150-145 Introduction to Enterprise Networks-2  
Credits: 1  
Intro to Enterprise Networks-2 is designed to introduce students to media types, network access methods, LAN/WAN topologies, and the basic function of routers and routing protocols.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-144)  
Complete Course Listing

150-146 Introduction to Enterprise Networks-3  
Credits: 1  
Intro to Enterprise Networks-3 is designed to cover the basics of IP addressing, the fundamentals of network design, and basic network troubleshooting techniques.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-145)  
Complete Course Listing

150-151 Information Security Principles  
Credits: 3  
This course will explore Information Security Principles as they relate to managing a computer network and securing business resources. Common threats to data confidentiality, integrity and availability will be discussed along with appropriate countermeasures.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing
150-152 Information Systems Security Practicum  
Credits: 3  
Students will typically work in the field, with an external enterprise, to learn how to develop a security vision statement, write simple but effective security guidelines, policies, and procedures that protect information, people, and property, and comply with legal and other requirements. Students will evaluate information and systems, assign ownership and responsibilities, and develop appropriate documentation.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-151) and (801-195 or 801-136)  
Complete Course Listing

150-153 Information Systems Security Management  
Credits: 3  
Students will learn how to establish well-structured documentation systems for information security of both sanctioned and unsanctioned activities, including those reports required by law. They will learn to write technical guidelines and technical descriptions, and develop checklists. Students will also document the application of patches and configuration changes. A resume and portfolio, which is a culmination of all information security coursework, will be compiled.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-152) and (809-166)  
Complete Course Listing

150-154 Information Systems Security Measures  
Credits: 3  
IS Security Measures is a lecture/lab course. The course covers topics such as system identification, authentication, auditing and monitoring for compromise, reducing attack surfaces, limiting privileged access, keeping systems updated, identifying critical assets and prioritizing their security monitoring. Other topics to be explored are implementation and configuration management, reviewing compliance regularly, evaluating settings with each new hardware or software version, and securing Active Directory domain controllers.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-117) and (150-128) and (150-133)  
Complete Course Listing

150-155 Current Issues and Trends in Information Assurance  
Credits: 3  
Disaster Recovery Planning is the current issues seminar topic and others are being planned. This seminar-format course is designed to cover “hot” topics in Information Assurance technology. Course emphasizes various current or emerging conditions/problems and possible responses/solutions to them. Topics change based on emerging current issues and potential future topics may include: Advanced OS Security; Introduction to Cryptography; Emerging Technologies, etc.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-151  
Complete Course Listing

150-156 Network Forensics  
Credits: 3  
This course will cover both advanced endpoint forensics (i.e. as a continuation of 150-113) and network forensics. Students will learn how to capture and analyze data from a network interface, as well as where and how to preserve it. The topic of eDiscovery, as a new discipline, will also be examined.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 150-113  
Complete Course Listing

150-181 Supervised Occupational Experience-Network Specialist  
Credits: 2  
Supervised Occupational Experience - Networking is a course that prepares the student for the transition from the classroom to the work place. Students will be employed in actual jobs in their field. They will use this opportunity to apply learned concepts and skills in practical situations and acquire the knowledge and experience of current techniques, methods, and theories in a data processing environment. The intern’s progress will be monitored and evaluated by the sponsoring employer and a BTC internship advisor. The desired outcome of the course is to qualify the student for eventual employment in an entry-level IT position.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 152-150  
Complete Course Listing

150-182 Information Technology Career Preparation  
Credits: 1  
This is a course designed to prepare second year students with the skills necessary to plan and execute an active job search. Topics covered include: resumes; personal data files; letters of application; and interviewing techniques. Students will prepare a strategy for finding and obtaining a position that best fits their goals and interests.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (150-117) and (150-128) and (152-150)  
Complete Course Listing

Laboratory Assistant (513)  
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

513-109 Blood Bank  
Credits: 4  
This course focuses on blood banking concepts and procedures including blood typing, compatibility testing, work ups for adverse reaction to transfusions, disease states and donor activities.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (513-110 or 506-101) and (513-115)  
Complete Course Listing
513-110 Basic Laboratory Skills  
Credits: 1  
This course explores health career options and the fundamental principles and procedures performed in the clinical laboratory. You will utilize medical terminology and basic laboratory equipment. You will follow required safety and infection control procedures and perform simple laboratory tests.  
Aid Code: 10 - Associate Degree.  
Co-requisites: (513-113 or 804-107)  
Complete Course Listing  

513-111 Phlebotomy  
Credits: 2  
This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture and special collection procedures.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Medical Laboratory Technician Program.  
Pre-requisites: (Background Check, P or Background Check, N) and (513-113)  
Co-requisites: (806-177)  
Complete Course Listing  

513-113 Quality Assurance Laboratory Math  
Credits: 1  
This course focuses on performing the mathematical calculations routinely used in laboratory settings. You will explore the concepts of quality control and quality assurance in the laboratory.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  

513-114 Urinalysis  
Credits: 2  
This course prepares you to perform a complete urinalysis which includes physical, chemical and microscopic analysis. You will explore renal physiology and correlate urinalysis results with clinical conditions.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (513-110 or 506-101)  
Complete Course Listing  

513-115 Basic Immunology Concepts  
Credits: 2  
This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (Background Check, P or Background Check, N) and (513-113) or 506-101)  
Co-requisites: (513-110 and (806-177 or 806-197)  
Complete Course Listing  

513-116 Principles of Phlebotomy  
Credits: 3  
Principles of Phlebotomy prepares the learner to function as a member of the healthcare delivery team, performing the role of a phlebotomist. The Phlebotomist generally works in a clinical laboratory under the supervision of the appropriate professional. He/She is responsible for collection procedures in both outpatient clinical and hospital inpatient settings for the purpose of laboratory analysis, including emergency and routine collection procedures from veins and skin punctures areas on patients of all age groups. Specimen integrity is emphasized as dependent on collection procedures, proper choice of equipment and knowledge of patient variables. Positive patient identification protocol is an absolute requirement which is stressed throughout as well as transport and processing of specimens. This theory course is designed to prepare the student to enter the laboratory/practicum experience of the program.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Phlebotomy Technician Program.  
Pre-requisites: (Background Check, P or Background Check, N)  
Co-requisites: (501-101)  
Complete Course Listing  

513-120 Basic Hematology  
Credits: 3  
This course covers the theory and principles of blood cell production and function, and introduces you to basic practices and procedures in the hematology laboratory.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (513-110 or 506-101)  
Complete Course Listing  

513-121 Coagulation  
Credits: 1  
This course introduces the theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed upon laboratory techniques used to diagnose disease and monitor treatment.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (513-110 or 506-101)  
Co-requisites: (513-120)  
Complete Course Listing  

513-130 Advanced Hematology  
Credits: 2  
This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 513-120  
Complete Course Listing
513-131 Clinical Chemistry 1
Credits: 3
Introduces Clinical Chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis.

Aid Code: 10 - Associate Degree.
Pre-requisites: (806-199) and (806-177) and (513-110 or 506-101)
Complete Course Listing

513-132 Clinical Chemistry 2
Credits: 2
A Continuation of Clinical Chemistry 1, this course includes techniques and procedures for analysis using sophisticated laboratory instrumentation. Topics include pathophysiology and methodologies for hepatic, bone, cardiac markers, tumor markers, endocrine function, fetal function, miscellaneous body fluids, and toxicology.

Aid Code: 10 - Associate Degree.
Co-requisites: 513-131
Complete Course Listing

513-133 Clinical Microbiology
Credits: 4
This course presents the clinical importance of infectious diseases with emphasis upon the appropriate collection, handling and identification of clinically relevant bacteria. Disease states, modes of transmission and methods of prevention and control, including antibiotic susceptibility testing, will also be discussed.

Aid Code: 10 - Associate Degree.
Pre-requisites: 806-197
Complete Course Listing

513-134 Clinical Chemistry
Credits: 4
Introduces clinical chemistry techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Topics in this course include pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function and blood gas analysis.

Aid Code: 10 - Associate Degree.
Pre-requisites: (513-110) and (806-177) and (806-199)
Complete Course Listing

513-140 Advanced Microbiology
Credits: 2
This course provides an overview of acid fast organisms, fungi, parasites, and anaerobic bacteria. The organisms, their pathophysiology, epidemiology, the diseases and conditions that they cause, laboratory methods of handling, culturing and identification will be discussed.

Aid Code: 10 - Associate Degree.
Co-requisites: 513-133
Complete Course Listing

513-147 Phlebotomy Practicum
Credits: 4
Phlebotomy Practicum prepares the learner to function as a staff member in a medical laboratory setting performing venipuncture and other specimen collection procedures on actual patients. Students learn how to process and handle laboratory specimens as well as learning how to function in a busy medical laboratory environment.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Phlebotomy Technician Program.
Pre-requisites: 513-116
Complete Course Listing

513-151 Clinical Experience 1
Credits: 3
In this clinical you will practice the principles and procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on Laboratory Information Systems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (513-109) and (513-110) and (513-111) and (513-113) and (513-114) and (513-115) and (513-120) and (513-121) and (513-130) and (513-131) and (513-132) and (513-133)
Co-requisites: 513-140
Complete Course Listing

513-152 Clinical Experience 2
Credits: 4
Provides continuing practice for the principles and procedures of laboratory medicine as an entry level Clinical Laboratory Technician in a clinical laboratory setting. You will learn to operate state of the art instruments and report results on Laboratory Information Systems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (513-109) and (513-110) and (513-111) and (513-113) and (513-114) and (513-115) and (513-120) and (513-121) and (513-130) and (513-131) and (513-132) and (513-133)
Co-requisites: 513-140
Complete Course Listing

513-153
Credits: 1
Students prepare a portfolio of professional experiences, assessments and evaluations, clinical reports, class project summaries, a log of community service or professional activities performed while in the MLT program and resume for MLT employment.

Aid Code: 10 - Associate Degree.
Co-requisites: 513-151 and 513-152
Complete Course Listing
513-170 Introduction to Molecular Diagnostics  
Credits: 2

The course will focus on normal flow of genetic information within the cell, as well as nucleic acid packaging and modification. Learners will analyze DNA and RNA structure and function. Basic genetic inheritance will be examined as well. Learners demonstrate isolation, amplification, and sequencing reactions in the lab. Learners use molecular techniques in the identification of microorganisms and the characterization of specific gene loci.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (806-199) and (806-197)  
Complete Course Listing

182-104 Inventory Management  
Credits: 3

This course will have learners analyze the role of inventory within the supply chain. The learner will apply decision-making skills and complete activities on topics including inventory control, performance measurements, inventory flow, physical inventory management, and warehouse and distribution center management. Learners will also incorporate related technology and integrated forecasting, planning, scheduling, and transportation topics.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 182-103  
Complete Course Listing

Logistics and Materials Management  
(182)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

182-103 Introduction to Supply Chain Management  
Credits: 3

The course will provide an understanding of the fundamental concepts of supply chain management. The learner will explore all functional areas of supply chain management with an integrated view of procurement, manufacturing and operations management, transportation and logistics, inventory and warehousing, demand planning, scheduling and performance management.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (AccuPlacer Reading Comp, 076 or COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or Test Waived-College Degree or 801-195 or 801-196 or 801-198 or 804-123 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)  
Complete Course Listing

182-104 Inventory Management  
Credits: 3

This course will have learners analyze the role of inventory within the supply chain. The learner will apply decision-making skills and complete activities on topics including inventory control, performance measurements, inventory flow, physical inventory management, and warehouse and distribution center management. Learners will also incorporate related technology and integrated forecasting, planning, scheduling, and transportation topics.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 182-103  
Complete Course Listing

182-105 Negotiations  
Credits: 1

This course develops the learner’s understanding of the principles, strategies, and tactics of effective negotiation and professional relationship management. The learner will be able to identify and assess the variables in negotiations, develop sound negotiation planning techniques as well as an understanding of various strategies and tactics to resolve conflicts, contractual and interpersonal differences.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (AccuPlacer Reading Comp, 076 or COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or Test Waived-College Degree or 801-195 or 801-196 or 801-198 or 804-123 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)  
Complete Course Listing

182-106 Purchasing  
Credits: 3

This course will develop the learner’s understanding of the role of purchasing within an organization. Learners will explore basic purchasing activities such as supplier selection and management, demand forecasting, purchasing procedures, monitoring customer orders, contingency planning, and cost management. The course prepares learners to assess technology, quality, legal, ethical, and global considerations as they relate to purchasing decisions.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 182-103  
Complete Course Listing

182-107 Distribution & Logistics  
Credits: 3

This course will develop the student’s understanding of logistics within a supply chain including the flow of goods and information from the point of origin to the point of consumption. Students will analyze topics such as facility location, order management and distribution, packaging and materials handling, and transportation. Students will complete an in-depth evaluation of transportation management including classification, documentation, contracts, and freight claims. Global transportation, transportation services, forward and reverse logistics, and related technology will also be explored.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 182-103  
Complete Course Listing

182-108 Supply Chain Management Internship  
Credits: 2

This course will provide learners with industry based exposure while learning how supply chain management processes work in organizations. The learner will gain on-the-job experience and training as they apply knowledge gained throughout the program to real life professional situations. Formal approval by the Dean of Business / Program Coordinator is required.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (182-103) and (182-104) and (182-106) and (182-107)  
Complete Course Listing
Marketing (104)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

104-102 Marketing Principles
Credits: 3

This course introduces core marketing concepts and terminology for Marketing and non-Marketing students. In addition to developing the rationale for a marketing approach to strategic planning, specific topics include target market selection and issues related to product, price, distribution, and promotion decisions.

Aid Code: 10 - Associate Degree.
Complete Course Listing

104-104 Selling Principles
Credits: 3

Learners will discover the personal and occupational applications of selling (defined as "an interpersonal persuasive process designed to influence some person's decision"). Selling is investigated from the following viewpoints: personal, industrial, wholesale, retail, door-to-door, and service. Students also learn and practice the professional principles involved in relationship selling.

Aid Code: 10 - Associate Degree.
Complete Course Listing

104-108 Website Administration for Marketers
Credits: 2

This course is designed for the non-technical person who wishes to understand and implement good website design concepts, security of the website, search engine optimization, and the day-to-day administration of a company's website and social media sites. Technology will be reviewed in layman's terms to prepare the student for working in today's marketing environments.

Aid Code: 10 - Associate Degree.
Pre-requisites: 104-102
Complete Course Listing

104-109 Social Media Marketing
Credits: 3

This course provides an overview in effective use of social media tools to conduct marketing activities for target markets. Students will learn how to integrate social media tools into the marketing plan and will learn how to write effectively when using specific social media tools such as Facebook, Twitter, or blogging from company websites.

Aid Code: 10 - Associate Degree.
Pre-requisites: (104-102) and (104-117) and (801-195 or 801-136)
Complete Course Listing

104-113 Marketing Career Strategies
Credits: 2

Traditional and alternative career search techniques are explained in this course. Emphasis is placed on both standard job application procedures and alternative techniques most often recommended by employers, recruiters, and other employment/personnel specialists. Students will complete a portfolio project that can be used to assist them with career search strategies and interviewing. Students should enroll in this course in their final semester of the Marketing Program.

Aid Code: 10 - Associate Degree.
Pre-requisites: (102-156) and (104-109) and (104-117) and (104-144) and (104-160)
Co-requisites: (104-118) and (104-146)
Complete Course Listing

104-117 Integrated Marketing Communications
Credits: 3

This course provides a broad overview of the entire spectrum of paid and non-paid activities designed to encourage the purchase of products and services, including, but not exclusive to, advertising, display, publicity/news releases, public relations, packaging, special events and sales promotion.

Aid Code: 10 - Associate Degree.
Pre-requisites: (104-102) and (801-195 or 801-136)
Co-requisites: (801-196)
Complete Course Listing

104-118 Marketing Design Concepts
Credits: 3

This course examines the aesthetic, symbolic, and technical qualities of color that challenge the designer. Students will refine their use of the design principles using layout and composition techniques to solve design problems relevant to desktop publishing, web design, and/or any form of marketing communication. Applications to effective web marketing will be explored.

Aid Code: 10 - Associate Degree.
Pre-requisites: 104-144
Complete Course Listing

104-130 Fundamentals of Customer Service
Credits: 3

This course is designed for learners who desire training in the fundamentals of customer service as they relate to business. It introduces core customer service concepts and an overview of the essential skills needed to succeed in any organization. In addition to dealing with internal and external audiences, specific topics include: listening techniques, verbal and nonverbal communication, dealing with various customer types, use of technology, handling a variety of complex customer situations, as well as an overview of careers within the customer service industry.

Aid Code: 10 - Associate Degree.
Complete Course Listing
104-131 Relationship Management Customer Service  
Credits: 3  
Effectively managing relationships with customers is critical to any successful customer service operation. Learners will explore strategies to identify customer needs, communicate effectively, and demonstrate professional work attitudes and ethics. Hands-on activities will help develop interpersonal and intrapersonal skills and an appreciation for various cultures and customers.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
104-132 Time Management and Problem Solving  
Credits: 3  
Learn techniques for prioritizing work, handling multiple tasks, and managing change. This course is designed for anyone interested in improving their customer service skills. Participants will also learn how to resolve conflict and improve working relationships with customers and peers.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
104-133 Sales Skills for Customer Service  
Credits: 3  
This course is designed for learners who seek sales-related training as it applies to the role of a customer service agent. Concepts such as up selling and cross selling will be discussed as well as basic sales information such as profits and losses, referrals, finding alternative solutions, and use of resources available to customer service personnel.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing  
104-140 e-Commerce Principles  
Credits: 3  
This course provides an overview of electronic commerce. Business models underlying these electronic commerce applications are studied from both an operational strategic perspective. A review is made of WWW technology trends including electronic payment and related issues of authentication, security, privacy, intellectual property rights, and tax implications. The role of marketing personnel in e-Commerce will be explored.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 103-106  
Complete Course Listing  
104-144 Desktop Design  
Credits: 3  
Students will learn how to use computer and multimedia technology to plan, design, and execute marketing related communications activities within the business firm. Students will learn to use Desktop Publishing and Desktop Design hardware and software suitable for both in-house, or electronic pre-press production of catalogs, brochures, flyers, posters, and product information sheets.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (104-117) and (801-195 or 801-136) and (103-106)  
Complete Course Listing  
104-146 Marketing Management  
Credits: 3  
This fourth-semester course instructs students in decision making relative to the marketing mix with special emphasis on the development, organization, implementation, and control of the marketing plan. This capstone course will help the learner analyze the available research data and then, when necessary, modify the data on the basis of logic and reason. The course helps the learner make not only informed marketing decisions, but also build rationale to defend it. Case studies and/or simulations used in class are designed to improve business acumen and managerial judgment.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 104-160  
Complete Course Listing  
104-154 Supervised Occupational Experience-Marketing  
Credits: 2  
Marketing students complete an on-the-job training plan based on a three-way agreement between an approved employer/sponsor, the student/intern, and the college. Participation in the supervised occupational experience involves marketing-related, mid-management or specialist employment based on the student's marketing career goals. Students are provided with an opportunity to learn operational skills not taught in the classroom.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: (104-104) and (104-190) and (196-135) and (102-156) and (104-109) and (104-144) and (104-160)  
Complete Course Listing  
104-160 Marketing Research  
Credits: 3  
The emphasis of this course will be on the collection of primary data through marketing research methodologies: observation, focus groups, interviews, and surveys. The course will also introduce students to the various methods of collecting secondary data. Concepts will be reinforced through group projects.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 104-102  
Complete Course Listing  
104-190 Retail Principles  
Credits: 3  
This course includes a study of considerations and opportunities of selling goods and services to the final consumer. Topics include an overview of the end user, store design, securing and controlling inventory, pricing, promotions, and future trends. An analysis is made of the basic activities of running a retail store.  
Aid Code: 10 - Associate Degree.  
Co-requisites: 801-196  
Complete Course Listing

Mathematics (804)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
804-107 College Mathematics

Credits: 3

This course 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. Topics include performing arithmetic operations and simplifying algebraic expressions, solving linear equations and inequalities in one variable, solving proportions and incorporating percent applications, manipulating formulas, solving and graphing systems of linear equations and inequalities in two variables, finding areas and volumes of geometric figures, applying similar and congruent triangles, converting measurements within and between U.S. and metric systems, applying Pythagorean Theorem, solving right and oblique triangles, calculating probabilities, organizing data and interpreting charts, calculating central and spread measures, and summarizing and analyzing data.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))

Complete Course Listing

804-110 Elementary Algebra with Applications

Credits: 3

This course offers traditional algebra topics with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include linear equations, exponents, polynomials, rational expressions, and roots and radicals. Successful completion of this course prepares learners to succeed in technical mathematics courses.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109)

Complete Course Listing

804-112

Credits: 3

This course is intended to introduce the individual to basic data collection, analysis and presentation techniques. The use of descriptive statistics as well as sampling, probability, and decision-making models will be covered. Data reliability will also be addressed. This course is intended as an introduction to basic statistics with an emphasis on current, real world applications.

Aid Code: 10 - Associate Degree.

Pre-requisites: ACT Math, 14

Complete Course Listing

804-113 College Technical Mathematics 1A

Credits: 3

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the applications of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-114 College Technical Mathematics 1B

Credits: 2

This course is a continuation of College Technical Mathematics 1A. Topics include: measurement systems; computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasis will be on the application of skills to technical problems. Successful completion of or concurrent enrollment in College Technical Mathematics 1A is required for course enrollment. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

Aid Code: 10 - Associate Degree.

Pre-requisites: 804-113

Complete Course Listing

804-115 College Technical Mathematics 1

Credits: 5

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; trigonometric functions on the unit circle; and operations on polynomials. Emphasis will be on the application of skills to technical problems.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-118 Intermediate Algebra with Applications

Credits: 4

This course offers algebra content with applications. Topics include properties of real numbers, order of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing
804-123 Math with Business Applications  
Credits: 3  

This course covers...real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications.  

Aid Code: 10 - Associate Degree.  
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 809-198 or 809-199 or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198) and (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))  
Complete Course Listing

804-133 Math and Logic  
Credits: 3  

Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.  

Aid Code: 10 - Associate Degree.  
Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030)) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)  
Complete Course Listing

804-139 Introductory Statistics  
Credits: 3  

Students taking Introductory Statistics display data with graphs, describe distributions with numbers perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA.  

Aid Code: 10 - Associate Degree.  
Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-106 or 804-107 or 804-118 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))  
Complete Course Listing

804-196 Trigonometry w Apps  
Credits: 3  

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles complex numbers, DeMoivre's Theorem, polar coordinates, and vectors.  

Aid Code: 10 - Associate Degree.  
Pre-requisites: (ASSET Numerical Skills, 49 or Compass Algebra, 066 or ACT Math, 23 or 804-110)  
Complete Course Listing

804-304 Mathematical Fundamentals  
Credits: 2  

This course consists of instructional units that incorporate hands on activities and projects. It is intended to give students a review of the basic principles of arithmetic, including whole numbers, fractions, and decimals. Estimation of length, angles and mathematical results is also covered. Additional topics include ratios, proportions, powers, analyzing graphs and an introduction to algebra. Proper calculator usage will be discussed throughout the course.  

Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: (ASSET Numerical Skills, 35 or COMPASS Pre-Algebra Skills, 025 or ACT Math, 15 or AccuPlacer Arithmetic, 050 or Test Waived-College Degree or 854-781 or 854-781 or 854-782 or 854-782 or 854-783 or 854-783 or 854-784 or 854-784 or 854-785 or 854-785 or 854-786 or 854-786 or 854-787 or 854-787)  
Complete Course Listing

804-306 Shop Mathematics I  
Credits: 2  

This course includes the basic principles of arithmetic beginning with whole numbers and common fractions, and continuing through decimals, percentages, ratios, proportions and averages, measurements, use of constants and coordinate systems. These principles are applied to typical shop problems throughout the course.  

Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: (ASSET Numerical Skills, 35 or COMPASS Pre-Algebra Skills, 025 or ACT Math, 15 or AccuPlacer Arithmetic, 050 or Test Waived-College Degree or 854-781 or 854-781)  
Complete Course Listing

804-308 Shop Mathematics II  
Credits: 2  

This course is a continuation of Shop Mathematics I and includes the study of the properties of circles, volumes and surface areas of various solids, an introduction to practical algebra and trigonometric principles used in solving right triangles as well as applications of the sine and cosine law in solving oblique triangles.  

Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: 804-306  
Complete Course Listing

804-501  
Credits: 1  

Aid Code: 50 - Apprentice.  
Complete Course Listing
Mathematics (854)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

854-713 BSE Mathematics 1
Credits: 3
Develops number concepts, mathematical language and whole number topics. This level introduces fractions, decimals, measurements and geometric shapes. Students use critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.

Aid Code: 73 - Beg ABE (0-5.9).
Complete Course Listing

854-755 BSE Mathematics for Workplace Learning Center
Credits: 2
Participants in this course will learn how to effectively use the basic concepts of whole numbers, fractions and decimals as they apply to either professional or personal use. The course will also provide specific preparation in the areas of algebra and geometry that could be used in vocational/technical programs or employment. Instruction will also be available for site specific math needs (example: pre-S.P.C. training or metric conversion). Participants will also learn problem solving skills using work related materials when appropriate. Course work may also be used in preparation for the GED test.

Aid Code: 77 - ASE Developmental.
Complete Course Listing

854-762 Math 2
Credits: 3
This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. This level may introduce basic algebra and geometry concepts. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

854-764 Math 2 GED Review
Credits: 3
This course develops math skills needed for the Mathematical Reasoning GED test at the pre-GED level. This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. This level may introduce basic algebra and geometry concepts. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

854-765 BSE Certified Nursing Assistant Mathematics
Credits: 2
This course will provide instruction in math skills needed to be successful in the Certified Nursing Assistant Program.

Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

854-771 BSE Mathematics, GED
Credits: 3
Introduction to algebra and geometry. A continuation of BSE, Math 2. Provides more advanced, higher level thinking and problem solving skills needed for the GED test.

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

854-772 Math 3 GED Review
Credits: 3
This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. It includes an introduction to algebra and geometry and provides more higher level thinking and problem solving skills needed for the GED test. It may also develop math skills needed for the Social Studies and Science GED tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

854-776 BSE Mathematics 3, Pharmacology Mathematics
Credits: 1
Designed for students entering the Associate Degree Nursing program, specifically preparing for the Pharmacology Math Test that the ADN students take during Fundamentals. Topics will include decimals, fractions, metric measurements, and calculating the amount of medication to be administered. This course does NOT satisfy the Program Ready requirement for the ADN program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing
854-777 BSE Mathematics 3, Radiography Mathematics
Credits: 2

Designed for students entering the Radiography program. Topics will include decimals, fractions, percents, metric measurements, conversions, significant figures, scientific notation, working with formulas, and solving for the unknown. Special emphasis will be placed on problems related to the field of radiography. This course does satisfy the Program Ready requirement for the Radiography Program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

854-778 BSE Mathematics 3, Nursing Mathematics
Credits: 2

Designed for students entering the Associate Degree Nursing program. Topics will include decimals, fractions, percents, metric measurements, conversions, concentrations, significant figures, scientific notation, working with formulas, and solving for the unknown. Special emphasis will be placed on preparing for the math tests required by the ADN program. This course does NOT satisfy the Program Ready requirement for the ADN program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

854-781 Math 3
Credits: 2

This course will include a review of whole numbers, fractions, ratios, proportions, and percents. It will also focus on English and metric conversions, applied geometry, basic statistics, and graph reading. Finally, students will develop their signed number skills as well as learn how to solve quations after an introduction to basic algebraic concepts. Successful completion of Math 3 with a C or better is required for progression to Pre-Algebra. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip, GED, HSED (9.0-12.9).
Pre-requisites: ASSET Numerical Skills, 26 or COMPASS Pre-Algebra Skills, 018 or ACT Math, 13 or AccuPlacer Arithmetic, 030 or 854-762
Complete Course Listing

854-785 BSE Mathematics 3, Allied Health Math
Credits: 2

Designed for students entering a program in the health occupations that would benefit from an introduction to algebra. Provides problem-solving skills needed for drug calculations and courses in physics and chemistry. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

854-788 BSE Mathematics 3, Modu Math Algebra
Credits: 3

This computer program uses practical video segments geared toward improving basic math skills. Students get the essential instruction, including drill and practice, required for complete mastery of basic operations involving whole numbers, fractions, decimals, percents, and signed numbers. The introductory algebra course covers basic concepts; order of operations; adding, subtracting and multiplying laws; problem solving; inequalities; graphing; factoring; quadratics and more. Students may use this for the Electrical Apprenticeship, AND, Radiography, Dental Hygiene, and PTA algebra requirements.

Aid Code: 78 - ASE Remedial.
Complete Course Listing

854-789 BSE Mathematics 3, Modu Math Algebra
Credits: 3

This computer program uses practical video segments geared toward improving basic math skills. Students get the essential instruction, including drill and practice, required for complete mastery of basic operations involving whole numbers, fractions, decimals, percents, and signed numbers. The introductory algebra course covers basic concepts; order of operations; adding, subtracting and multiplying laws; problem solving; inequalities; graphing; factoring; quadratics and more. Students may use this for the Electrical Apprenticeship, AND, Radiography, Dental Hygiene, and PTA algebra requirements. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

Mechanical Drafting (421)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

421-380
Credits: 2

This course is designed to help the student acquire the ability to visualize spatial relationships between two and three view drawings. Introduction to machine and welding terminology and concepts is acquired by reading a series of prints. A study of welding symbols is covered. The course emphasizes training in visualization and factual information as a means of gaining a working knowledge of the interpretation of prints related to the welding or fabrication industry.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: 804-306
Complete Course Listing
Blueprint reading is really learning a new language where much of it is presented in graphic or symbolic form. Students will learn about different types of drawings, proper drawing structure, and drawing terminology. They will learn to produce simple sketches and visualize two and three-dimensional parts. The experienced machine operator must be able to decipher blueprints in order to produce parts to proper specification.

**Aid Code:** 31 - One-year Technical Diploma.

**Complete Course Listing**

**421-390 Blueprint Reading Maintenance**

**Credits:** 3

This course focuses on reading and interpreting blueprints, drawings and graphic symbols used in industry. Students will gain experience in the ability to visualize spatial relationships between single and multiple-view drawings. Time is spent interpreting actual blueprints. Students will be able to interpret a variety of prints such as machining, mechanical, or assembly prints.

**Aid Code:** 31 - One-year Technical Diploma.

**Restrictions:** Restricted to students admitted to Industrial Mechanic Program.

**Complete Course Listing**

**Mechanical Technology (606)**

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

**606-119**

**Credits:** 3

Introduction to SolidWorks is intended to introduce the student 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, add features such as fillets, cut/extrude, chamfers, holes, draft, shell, lofts and sweeps. Emphasis is placed on the design intent of parametric solid models. In addition, students extract 2D documentation from the 3D models and add details to the drawings.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** 606-127

**Complete Course Listing**

**606-120**

**Credits:** 3

A study is made of the behavior of machine parts and structural members that are in service. Various types of loads and the effects of those loads are examined. Failure modes are examined and calculated to assure proper machine design and function.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** 804-114

**Complete Course Listing**

**606-123 Interpreting Engineering Graphics**

**Credits:** 2

This is a course designed to introduce the student to the concepts, equipment and tools associated with Mechanical Drafting. The course is a precursor to more advanced subject matter discussed in later program classes.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

**606-124 Orthographic Projection**

**Credits:** 3

ANSI Standards, as related to drafting, are introduced. The principles for orthographic projection and techniques for layout of multi-view drawings are introduced. Subject areas include ANSI regulations/standards, primary planes of projection and applied orthographic projection. Dimensioning basics are covered.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

**606-125 Drafting Representations**

**Credits:** 2

Internal features expressed through sections and drafting conventions are examined. Auxiliary, successive auxiliary, revolution and applied descriptive geometry are used extensively in the course. A brief introduction to pictorials is covered.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (606-124) and (606-127)

**Complete Course Listing**

**606-126 Fasteners and Processes**

**Credits:** 3

An in-depth look at threaded fasteners and screw thread systems is taken. Working strength of various threads to assess mode of failure as well as specific stress and strain calculations are discussed. Welding terminology and symbology are introduced.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (606-124) and (606-127)

**Complete Course Listing**

**606-127 Two-Dimensional Computer Aided Drafting (CAD)**

**Credits:** 3

All aspects of two-dimensional computer aided drafting are explored. This is a foundation for more advanced editing and dimensioning as well as three-dimensional computer aided renderings.

**Aid Code:** 10 - Associate Degree.

**Complete Course Listing**

**606-128 Three-Dimensional Computer Aided Drafting (CAD)**

**Credits:** 3

This is a hands-on drawing course in the latest Mechanical Design nuance known as 3-D drafting. The student will learn time saving techniques for constructing solid models for use in the industrial design field.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (606-124) and (606-127)

**Complete Course Listing**
606-129 Kinematics
Credits: 3

The student takes an in-depth look at the study of motion as related to machines and the design and selection of belts, gears, cams and eccentrics. Linear and rotational motion is discussed as well as specific displacement. Also discussed are bearings and clutches/brakes.

Aid Code: 10 - Associate Degree.
Complete Course Listing

606-130 Actuators
Credits: 3

In this course, the basics of creating movement through the use of electricity, electric motors, hydraulics and pneumatics are discussed. This course is intended to give the student a basic understanding of the various machine design applications he/she may encounter in industry.

Aid Code: 10 - Associate Degree.
Complete Course Listing

606-131 Geometric Dimensioning and Tolerancing
Credits: 2

GD&T introduces the student to the differences between conventional tolerancing and geometrical tolerancing. An emphasis is put on interpretation and application of the proper GD&T symbology given the function of the part and according to ANSI Standards.

Aid Code: 10 - Associate Degree.
Complete Course Listing

606-132 Design Applications
Credits: 2

A culmination of the total program is reached in this course. Multiple projects are assigned to strengthen the student's ability to perform in the design field. This course allows the student to be creative in their design selection, and to defend/explain the selection based on necessary criteria.

Aid Code: 10 - Associate Degree.
Complete Course Listing

606-133 Descriptive Geometry
Credits: 2

Descriptive Geometry is designed to broaden the applicable knowledge of different techniques employed in the graphical solution of problems involving spatial relationships between points, lines, planes and solids. Within the course, special consideration is given to the techniques of rotation, auxiliary and surface development, as well as surface classification in the practical application of trade problems. The student learns when to use the most appropriate technique, given a specific problem, as well as alternate techniques to solve for the same problem.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Medical Administrative Coder (160)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
160-113 Health Insurance
Credits: 3

The student will gain knowledge and practical skill development in the health care insurance area. This course provides an introduction to health insurance including identifying and governmental payers, specific health insurance terminology and its meaning, understanding the role of medical coding in the billing of third-party payers for services and procedures received by the patient, linking of codes on the claim form demonstrating medical necessity, privacy and HIPAA, and effectively using technology and resources for problem solving. Students will apply third-party payer (private and governmental) rules when completing CMS-1500 claim forms. The student will also be able to better understand his/her personal insurance coverage.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103 or 801-136 or 801-195) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-193 or 809-195 or 809-198 or 809-199)

Complete Course Listing

160-114 Healthcare Records Management
Credits: 3

This course covers the systematic control of information in each phase of the record life cycle: creation, distribution, use, maintenance, and disposition. Topics will include systems of filing and storage (general and medical specific); organizing, managing, and controlling the system; potential careers; and trends in technology. Ethical/legal issues in the healthcare field will be addressed. Information on the EHR/EMR (electronic health record/electronic medical record) will also be covered. Simulations will provide hands-on experience with major filing classification systems in both paper and computer database (EHR) formats. Touch keyboarding and basic computers skills are necessary for this course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-112) or (106-120 or 501-101)

Complete Course Listing

160-118 Pharmacology for Medical Administrative Coder
Credits: 2

Pharmacology for MAC (Medical Administrative Coder) will provide an introduction to the use of pharmacology terminology and context. Included is information on medication actions, dosage forms, routes of administration, and drug uses. Students will research and create presentations on the pathophysiology of the human body in conjunction with treatments used to combat various diseases and conditions. Emphasis is on the terminology necessary for medical reports used in transcription and coding.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-120 or 160-120 or 501-101) and (806-194 or 806-177)

Complete Course Listing

160-120 Medical Terminology for Coding
Credits: 3

This course provides a combination of the study of medical vocabulary and the application of that vocabulary in an office setting. Students will learn the pronunciation, spelling, definition, and correct usage of medical terms used in a variety of healthcare office applications, with an emphasis on terminology necessary for medical reports used in transcription and coding. Students will also learn how to divide medical words into their component parts: the root word, the suffix, the prefix, and the combining form.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103 or 801-136) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

160-124 Supervised Occupational Experience-Medical Office
Credits: 1

In this course, students apply and interview for medical office internship placements. Once selected, the student will apply the knowledge and skills obtained in the classroom to the work environment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-114 or 160-114) and (106-136 or 160-136) and (106-185 or 160-185) and (530-102 or 530-150)

Complete Course Listing

160-136 Patient Billing and Reimbursement
Credits: 4

This course emphasizes computerized patient billing procedures in the health-care environment utilizing practice management software and electronic health records. Reports and insurance forms are generated using microcomputer billing software for physician and hospital billing. The students will input patient information, charges, payments and appointments, charges, coding and diagnosis code linkage, claims management, processing payments, and collections. Correct use of telephone skills and being sensitive to confidentiality will be covered. Students will continue to build upon previous medical insurance knowledge by researching healthcare trends.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-113) and (106-120 or 501-101)

Complete Course Listing
160-185 Medical Microsoft Office Suites
Credits: 3

Students will learn to use word processing software to create, format, and edit medical documents. Course includes the development of proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. Work will also be done to improve speed and accuracy through the use of timed writings.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-127) and (Typing Score, 30)
Complete Course Listing

Medical Assistant (509)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

509-301 Medical Assistant Admin Procedures
Credits: 2

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.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (501-101) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-304) and (501-101) and (801-195 or 801-136)
Complete Course Listing

509-302 Human Body in Health & Disease
Credits: 3

Focuses on diseases that are frequently first diagnosed and treated in the medical office setting. Students learn to recognize the causes, signs, and symptoms of diseases of the major body systems as well as the diagnostic procedures, usual treatment, prognosis and prevention of common diseases.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (501-101) and (509-301) and (509-303) and (509-304) and (801-195 or 801-136) and (501-107 or 103-106)
Complete Course Listing

509-303 Medical Asst Lab Procedures 1
Credits: 2

Introduces medical assistant students to laboratory procedures commonly performed by medical assistants in a medical office setting. Students perform 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.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (501-101) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-304) and (801-195 or 801-136)
Complete Course Listing

509-304 Medical Asst Clin Procedures 1
Credits: 4

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.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (501-101) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (801-195 or 801-136)
Complete Course Listing

509-305 Medical Asst Lab Procedures 2
Credits: 2

Prepares students to perform laboratory procedures commonly performed by medical assistants in the ambulatory care setting under the supervision of a physician. Students perform phlebotomy, immunology, hematology and chemistry laboratory procedures.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-306) and (509-307) and (509-308) and (509-309) and (509-310)
Complete Course Listing
509-306 Medical Asst Clin Procedures 2
Credits: 3

Prepares Medical Assistant students to perform patient care skills in the medical office setting. Students perform clinical procedures including administering medications, assisting with minor surgery, performing an electrocardiogram, assisting with respiratory testing, educating patients/community, and maintaining clinical equipment in an ambulatory care setting.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-305) and (509-307) and (509-308) and (509-309) and (509-310)

Complete Course Listing

509-307 Med Office Insurance and Finance
Credits: 2

Introduces Medical Assistant students to health insurance and finance in the medical office. Students perform bookkeeping procedures, apply managed care guidelines, and complete insurance claim forms. Students use medical coding and managed care terminology to perform insurance-related duties.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-305) and (509-306) and (509-308) and (509-309) and (509-310)

Complete Course Listing

509-308 Pharm for Allied Health
Credits: 2

Introduces students to classifying medications into correct drug categories and applying basic pharmacology principles. Students apply basic pharmacodynamics to identifying common medications, medication preparation, and administration of medications used by the major body systems.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-305) and (509-306) and (509-307) and (509-309) and (509-310)

Complete Course Listing

509-309 Medical Law, Ethics and Professionalism
Credits: 2

Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform quality improvement procedures, examine legal and bioethical issues, and demonstrate awareness of diversity.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-305) and (509-306) and (509-307) and (509-308) and (509-310)

Complete Course Listing

509-310 Medical Assistant Practicum
Credits: 3

Requires Medical Assistant students to integrate and apply knowledge and skills from all previous Medical Assistant courses in actual patient care settings. Learners perform Medical Assistant administrative, clinical, and laboratory duties under the supervision of trained mentors to effectively transition to the role of a Medical Assistant.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Medical Assistant Program.
Pre-requisites: (501-101) and (801-195 or 801-136) and (501-107 or 103-106) and (509-301) and (509-302 or 806-177) and (509-303) and (509-304)
Co-requisites: (509-305) and (509-306) and (509-307) and (509-308) and (509-309)

Complete Course Listing

Medical Coding (530)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

530-102
Credits: 3

This course prepares learners to assign ICD-CM, CPT, and HCPCS level II medical codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for ICD-CM, CPT, and HCPCS Level II codes. Learners apply skills through coding application from medical documentation and various other coding exercises. Confidentiality and HIPAA will be reinforced throughout the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-120 or 160-120 or 501-101) and (106-136) or 160-136 and (806-194 or 806-177)

Complete Course Listing
530-103
Credits: 3

This course is a continuation from 530-102 Medical Office coding I and will focus on coding ICD-CM, CPT, and HCPCS Level II codes for Anesthesia, Evaluation and Management, Radiology, and Medicine. Learners will review and apply coding instructional notations, conventions, rules and official coding guidelines in ICD-CM, CPT, and HCPCS Level II codes in preparation to take the national AAPC (American Academy of Professional Coders) CPC (Certified Professional Coder) exam. Learners will complete research into the application of modifiers. Resources, including the Internet and coding software will be introduced. Confidentiality and HIPAA is reinforced through the course. An active role in team participation will be required.

Aid Code: 10 - Associate Degree.
Pre-requisites: (530-102 or 530-150)
Complete Course Listing

530-112 Disease Process and Treatment
Credits: 4

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.

Aid Code: 10 - Associate Degree.
Co-requisites: (501-101) and (806-189 or 806-177)
Complete Course Listing

530-150 Medical Office Coding I
Credits: 4

This course prepares learners to assign ICD-CM, CPT, and HCPCS Level II medical codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for ICD-CM, CPT, and HCPCS Level II codes. Learners apply skills through coding application from medical documentation and various other coding exercises. Confidentiality and HIPAA will be reinforced throughout the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-120 or 160-120 or 501-101) and (106-136 or 160-136) and (806-194 or 806-177)
Complete Course Listing

530-176 Health Date Management
Credits: 2

Introduces the use and structure of health care data elements, data sets, data standards, their relationships to primary and secondary record systems and health information processing.

Aid Code: 10 - Associate Degree.
Co-requisites: 530-181
Complete Course Listing

530-181 Intro to the Health Record
Credits: 1

This course prepares learners to illustrate the flow of health information in various health care delivery systems and within the health information department. Prepares learners to retrieve data from health records. Professional ethics, confidentiality and security of information are emphasized.

Aid Code: 10 - Associate Degree.
Complete Course Listing

530-182 Human Disease for Health Professionals
Credits: 3

Prepares learners to interpret clinical documentation that 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.

Aid Code: 10 - Associate Degree.
Co-requisites: (501-101) and (806-194 or 806-195 or 806-177 or 806-189)
Complete Course Listing

530-184 Current Procedural Terminology Coding
Credits: 3

Prepares learners to assign CPT codes, supported by medical instructional notations, conventions, rules and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation.

Aid Code: 10 - Associate Degree.
Co-requisites: (501-101) and (530-181) and (530-182 or 530-112) and (806-194 or 806-177 or 806-195 or 806-189)
Complete Course Listing

530-185 HealthCare Reimbursement
Credits: 2

This course prepares learners to compare and contrast health care payers, illustrate the reimbursement cycle, and to comply with regulations related to fraud and abuse. Learners assign Diagnosis Related Groups (DRGs), Ambulatory Payment Classifications (APCs) and Resource Utilization Groups (RUGs) with entry-level proficiency using computerized encoding and grouping software.

Aid Code: 10 - Associate Degree.
Co-requisites: (501-101) and (530-181) and (530-182 or 530-112) and (806-194 or 806-177 or 806-195 or 806-189)
Complete Course Listing

530-195 Applied Coding
Credits: 2

Prepares students to assign ICD and CPT/HCPCS codes supported by medical documentation with intermediate level of proficiency. Students will prepare appropriate physician queries in accordance with compliance guidelines and will assign codes to optimize appropriate reimbursement.

Aid Code: 10 - Associate Degree.
Co-requisites: (530-197 or 530-197) and (530-199 or 530-199) and (530-184 or 530-184) and (530-185 or 530-185)
Complete Course Listing
530-197 International Classification of Disease (ICD) Diagnosis Coding  
Credits: 3  
Prepares students to assign ICD diagnosis codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD diagnosis codes to case studies and actual medical record documentation.  
Aid Code: 10 - Associate Degree.  
Co-requisites: (501-101) and (806-189 or 806-177) and (530-182 and 530-181)  
Complete Course Listing

530-199 International Classification of Disease (ICD) Diagnosis Coding  
Credits: 2  
Prepares students to assign ICD procedure codes supported by medical documentation with entry level proficiency. Students apply instructional notations, conventions, rules, and official coding guidelines when assigning ICD procedure codes to case studies and actual medical record documentation.  
Aid Code: 10 - Associate Degree.  
Co-requisites: (501-101 or 501-101) and (806-189 or 806-189 or 806-177 or 806-177) and (530-182 or 530-182) and (530-181 or 530-181)  
Complete Course Listing

Medical Terminology (501)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  

501-101 Medical Terminology  
Credits: 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 all body systems, as well as systematic and surgical terminology.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

501-107 Digital Literacy for Health Care  
Credits: 2  
This course provides an introduction to basic computer functions and applications utilized in contemporary healthcare settings. Students are introduced to the hardware and software components of modern computer systems and the application of computers in the workplace. The use of the common software packages, operating systems, file management, word processing, spreadsheet, database, Internet, and electronic mail is emphasized.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

Metallurgy (422)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  

422-100  
Credits: 3  
This course examines the nature, properties, and processing of metals. Subjects presented include history, occurrence, recovery from ores, manufacture, structure, heat treatment, theory of alloys, and basics of materials science. Steels, cast iron, and common non-ferrous metals receive the major emphasis.  
Aid Code: 10 - Associate Degree.  
Complete Course Listing

422-343 Welding Blueprint Reading 1  
Credits: 1  
This course covers the fundamentals of Blueprint reading. Students examine and analyze types of drawings, orthographic projection, library of lines, title block dimensions and produce sketching projects.  
Aid Code: 31 - One-year Technical Diploma.  
Complete Course Listing

422-344 Welding Blueprint Reading 2  
Credits: 1  
This course covers blueprint reading specific to the welding industry. Students examine and define welding symbols and abbreviations used on welding specific blueprints.  
Aid Code: 31 - One-year Technical Diploma.  
Complete Course Listing

Millwright (423)  
Information provided includes course descriptions by subject only.  
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).  

423-510 Maintenance Mechanic/Millwright I  
Credits: 2  
Aid Code: 50 - Apprentice.  
Complete Course Listing

423-511 Maintenance Mechanic/Millwright II  
Credits: 2  
Aid Code: 50 - Apprentice.  
Complete Course Listing

423-512 Maintenance Mechanic/Millwright III  
Credits: 2  
Aid Code: 50 - Apprentice.  
Complete Course Listing

423-513 Maintenance Mechanic/Millwright IV  
Credits: 2  
Aid Code: 50 - Apprentice.  
Complete Course Listing

423-514 Maintenance Mechanic/Millwright V  
Credits: 2  
Aid Code: 50 - Apprentice.  
Complete Course Listing
423-515 Maintenance Mechanic/Millwright VI
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

423-516 Maintenance Mechanic/Millwright VII
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

423-517 Maintenance Mechanic/Millwright VIII
Credits: 2
Aid Code: 50 - Apprentice.
Complete Course Listing

Natural Science (806)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

806-108 Applied Anatomy and Physiology
Credits: 5
This course builds on a basic knowledge of skeletal, muscle and nervous systems and presents an in-depth study of their structure and functions. The integration of these systems to produce motion is studied. Critical thinking skills are encouraged as to analyze the relationships of these systems to normal movement, posture and gait. The development of observation and palpation skills is emphasized. Independent study of the pathophysiology of the major body systems is also included.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.
Pre-requisites: (806-154 or 806-139 or 806-140) and (806-177 or 806-131 or 806-195)
Complete Course Listing

806-110 Forensic Science (Criminalistics)
Credits: 3
Forensic Science is a course designed to provide students of law enforcement with an appreciation of the capabilities and limitations of scientific analysis of crime scene evidence. All functions of a basic crime lab are discussed with emphasis on relating methods of analysis to the proper collection and packaging of evidence. Laboratory exercises are designed to expand upon and reinforce lecture material.
Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

806-112 Principles of Sustainability
Credits: 3
Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.
Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

806-118 Metal Science
Credits: 3
This is a one-semester course in basic physics and metallurgy principles for the Technical College student. The course reviews accuracy and precision of measurements, introduces calculations with units and conversions within and between systems of measurements, formula rearranging, and applications in problem solving. Basic topics include properties of matter, metallurgy, material properties, material testing, force, motion (linear and circular), energy, power, and simple machines. The topics of heat, electricity, and magnetism are also introduced in the class. Emphasis is placed on the application of the laws and principles of physics to practical problems found in the machine shop and industry.
Aid Code: 10 - Associate Degree.
Pre-requisites: (804-308) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing
806-134 General Chemistry
Credits: 4

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.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or ASSET Numerical Skills, 40 or Test Waived-College Degree or 804-107 or 804-117 and (COMPASS Reading Skills, 073 or 804-123 or 804-133) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030)) or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-139 Survey Of Physics
Credits: 3

This course emphasizes understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-140
Credits: 3

This course is designed to acquaint the students with basic concepts of physics and their applications. Topics covered include algebra (a review), measurement, motion, forces, work, energy, power, simple machines, heat, and electricity. Laboratory exercises are designed to expand upon and reinforce lecture material.

Aid Code: 10 - Associate Degree.

Complete Course Listing

806-152 Technical Science II
Credits: 3

This course is a continuation of Technical Science I with a study of heat, wave motion and sound, light and optics, and an introduction to electricity and magnetism. Sufficient mathematical treatment is given to the materials so the student can apply the principles in a quantitative manner. The laboratory work includes computer-aided study and the appropriate experiments to illustrate the application of the physical principles.

Aid Code: 10 - Associate Degree.

Pre-requisites: 806 151

Complete Course Listing

806-154 General Physics 1
Credits: 4

Presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

Aid Code: 10 - Associate Degree.

Pre-requisites: (804-114 or 804-115) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-175 General Pathophysiology
Credits: 3

This introductory course in pathophysiology covers topics related to alterations of homeostasis and the associate pathophysiological processes. The major emphasis will be on the physiological factors that underlie disease states. Course studies include the processes involved that generate illness; signs and symptoms of commonly occurring illness states and effects of disease processes on the cell. Review of normal homeostasis mechanisms is included. Study of the fundamental processes in relation to the pathophysiological processes can enable the students to apply this knowledge to clinical situations.

Aid Code: 10 - Associate Degree.

Pre-requisites: 806-179

Complete Course Listing

806-177 General Anatomy and Physiology
Credits: 4

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.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199) and (Chemistry, 1.0 or 856-787 or 806-199 or 806-134)

Complete Course Listing
806-179 Advanced Anatomy and Physiology
Credits: 4

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.

Aid Code: 10 - Associate Degree.
Pre-requisites: (806-195 or 806-177 or 806-131)
Complete Course Listing

806-186 Introduction to Biochemistry
Credits: 4

Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other Allied Health careers. Emphasis is placed on recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids, and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA.

Aid Code: 10 - Associate Degree.
Pre-requisites: (Chemistry, 1.0 or 856-787 or 856-787 or 806-134) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-198 or 804-133 or 806-110 or 806-112 or 806-139 or 806-154 or 806-177 or 806-194 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

806-189 Basic Anatomy
Credits: 3

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

Aid Code: 10 - Associate Degree.
Complete Course Listing

806-194 Survey of Anatomy and Physiology
Credits: 3

This course is designed to provide a basic understanding of human anatomy, physiology, diseases, and terminology to assist with the transcription and coding of medical documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

806-197 Microbiology
Credits: 4

This course examines microbial structure, metabolism, genetics, growth and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

Aid Code: 10 - Associate Degree.
Pre-requisites: (806-177 or 806-195 or 806-196 or 806-179 or 806-199)
Complete Course Listing

806-199 General, Organic and Biological Chemistry
Credits: 4

A one semester course covering the fundamental aspects of inorganic and organic chemistry. Topics include lab safety, measurement, elementary problem solving, atomic structure, periodicity, chemical bonding, types of chemical reactions, properties of water, acid, bases, and salts, types of solutions and calculations of concentrations, gas laws, oxidation-reduction concepts, ionization, pH and buffers, hydrocarbons, types of organic compounds and functional groups, biochemical compounds including lipids, carbohydrates, proteins, and nucleic acids.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing
Numerical Control (444)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

444-300
Credits: 2

The ability to use a computer has become one of the most basic skills. In this course the learner will learn to use a computer to navigate through the learning process as well as being able to use the computer to operate an assortment of software. Students learn how to operate the computer’s operating system to perform many common tasks such as opening, closing, saving, and printing files. They will practice these operating system functions on files created from software used in the machine shop.

Complete Course Listing

444-301 Metrology
Credits: 2

Metrology is the study of measurement. The production of quality parts is impossible without adequate measurement. Therefore, this is a course that should be taken before any machining course. You will learn about an assortment of precision and semi-precision measuring instruments used for the job shop or where large numbers of parts are produced. Material will cover instrument care, types, components, scales, calibration, handling, and reading the instrument. You will have an opportunity to use and gain proficiency in most of the measuring instruments that are discussed.

Complete Course Listing

444-302 Semi-Precision Machining
Credits: 2

This course is designed to acquaint the student with the semi-precision/fabrication machines in the machine shop. These machines are easier to operate and provide a good starting point for the beginner. These machines should not be considered to be less important in the machine shop or to require less skill to operate. These drill presses, pedestal grinders, bench tools, and saws are extremely important tools. The associated work holding, cutting tools, processes, and measuring instruments are also taught.

Complete Course Listing

444-303 Turning Fundamentals
Credits: 2

This module covers the introduction to the engine lathe. Emphasis is on knowing the machine parts, their function, and performing simple lathe operations. Engine lathes are one of the basic machines with the ability to produce cylindrical parts to close tolerances. Introductory subjects such as related safety, maintenance, metal cutting theory, cutting tools, and work holding for lathes will be taught. There is an emphasis on safety. All of these subjects will be introduced and built upon as the learner progresses to higher levels of proficiency.

Complete Course Listing

444-304 Geometric Dimensioning and Tolerancing (GD&T) Interpretations
Credits: 1

Geometric Dimensioning and Tolerancing is a system of symbols used to portray mechanical specifications and relationships on mechanical drawings. Industries using this system include large automotive, aircraft, and agricultural manufacturers, a growing number of smaller industries and most European manufacturers. Students will explore ANSI (American National Standard Institute) Standard symbols and methods of interpretation of these symbols to meet the expectations of the mechanical design engineer that specified them on the drawing.

Complete Course Listing
444-305
Credits: 2

This module covers the introduction to the milling machines. Emphasis is on knowing the machine parts, their function, and performing simple lathe operations. Introductory subjects such as related safety, maintenance, metal cutting theory, cutting tools, and work holding for the mill will be taught. There is an emphasis on safety. All of these subjects will be introduced and built upon as the learner progresses to higher levels of proficiency.

Complete Course Listing

444-306 Turning Applications
Credits: 2

This advanced turning course involves performing more difficult machining operations, using different materials, and using different work holding devices. The material, work holding devices and setups will present the learner with challenging situations that require them to apply their past experiences along with what they have learned in theory to produce quality parts. In situations where the student is performing previously learned operations, the learner will be expected to develop their speed and accuracy. One of the requirements of an advanced course is that students apply their knowledge to problems through the trouble shooting process.

Complete Course Listing

444-307 Manufacturing Support Systems
Credits: 1

Producing machined parts routinely requires that components be cut on different machines in a specified sequence. While dozens to thousands of different parts may be at various stages of completion at any given instant within a manufacturing facility, it is necessary that these parts be sequenced properly and progress tracked so product can be shipped to the customer when expected. Students will be exposed to this environment and will learn to understand how sudden changes (scrap/rework) influence this critical manufacturing function.

Complete Course Listing

444-308 Milling Applications
Credits: 2

The advanced milling course involves performing more difficult machining operations, using different materials, and using different work holding devices. The materials, work holding devices and setups will present the learner with challenging situations that require them to apply their past experiences along with what they have learned in theory to produce quality parts. In situations where the student is performing previously learned operations, the learner will be expected to develop their speed and accuracy. One of the requirements of an advanced course is that students apply their knowledge to problems through the trouble shooting process.

Complete Course Listing

444-309 Computer Numerical Control (CNC) Fundamentals
Credits: 2

This class is geared for the beginner or the person wishing to brush up on the fundamentals. It will focus on NC terminology, basic machine operation, setup, and the fundamentals of manual programming for CNC lathes and mills. Participants will learn about rectangular systems, the word address programming format, and absolute/incremental tool positioning.

Complete Course Listing

444-310 Grinding and Gear Techniques
Credits: 2

The grinding portion of this course will start you out at the beginning with grinding terminology, machine types, control names and functions, and processes. The related grinding information grinding theory, tooling, safety, and work holding will be taught. This course will result in the learner being able to setup and operate a surface grinding machine to perform simple grinding operation to typical grinding tolerances. The purpose of the gear cutting activity is to introduce the student to the terminology, math, tools, and techniques for cutting gears. Gear cutting besides being a specialized machining operation is an occupational discipline in itself. That is, students may find they would like to cut gears as a career. It is a highly specialized process so it is only possible for a student to get an introduction. This introduction should prepare the student adequately for a job entry level position.

Complete Course Listing

444-311 Computer Numerical Control (CNC) Turning Operations
Credits: 2

CNC turning centers produce many of the cylindrical shapes machined in production machine shops today. This course is the introductory course for CNC Turning Centers and includes machine/control familiarization, machine startup procedures, program transfers, work holder preparation, tooling installation, setting tooling offsets, and establishing a part origin. In addition, students learn how to safely run the first part and make minor adjustments to create quality parts.

Complete Course Listing

444-312 Computer Numerical Control (CNC) Turning - Operations and Programming 1
Credits: 2

This course introduces the student to the programming process for CNC Turning Centers. The student will learn to create very simple programs and to run them on the machine. Students will learn about program structure and style. Students will start using the basic “G” codes necessary for program basic turned part features such as, faces, outside diameters, and holes. They will write/edit simple programs in order to create these common part features. The goal will be to start out simple and move to programs that are efficient, effective, and clearly written.

Complete Course Listing
444-313 Tooling and Workholding
Credits: 2

This module consists of competencies relating to work holding devices and methods. Students will learn about the basic work holding principles, work holding devices, and work holding methods. These topics will be discussed in depth so that the student will be able to select and apply the best work holding device for the situation. Advanced knowledge of work holding will promote safety, setup speed, and cutter/work rigidity. Cutting tool information is vital for an in-depth and complete understanding of the machining processes. The selection of cutting tools and cutting tool data may be one of the most complex areas of study. Students will learn to select tools based on part geometry and machining operation. The learner will acquire the cutting data from formulas along with using reference material to obtain the data. This is very important because one of the most common complaints from employers is that employees cannot set machine feeds and speeds resulting in either wasted time or damaged tooling. As the student becomes more proficient, they will gain the ability to troubleshoot machining problems that are related to cutting tools.

Complete Course Listing

444-314 Coordinate Measuring Machines (CMM) Techniques
Credits: 2

In this course you will learn about Coordinate Measuring Machines (CMM). You will learn about their types, care, limits, setup, and applications. The CMM is a high tech solution to many measuring situations with (as with all measuring instruments) limitations. Often it is as important to know when not to use a particular instrument as when to use it. Proper use of the CMM will result in good and consistent measurements. Students will be able to setup and measure parts.

Complete Course Listing

444-315 Computer Numerical Control (CNC) Milling-Operations
Credits: 2

CNC mills produce many of the prismatic shapes machined in production machine shops today. This course is the introductory course for CNC Machining Centers and includes machine/control familiarization, machine startup procedures, program transfers, work holding preparation, tooling installation, setting tooling offsets, and the part origin. In addition, students will learn how to safely run the first part and make minor tool offset adjustments to produce quality parts.

Complete Course Listing

444-316 Computer Numerical Control (CNC) Milling-Operations and Programming 1
Credits: 2

This course introduces the student to the programming process for CNC Machining Centers. The student will learn to create very simple programs and to run them on the machine. Students will learn about program structure and style. Students will start using the basic “G” codes necessary for program basic milled part features such as, faces, steps, slots, holes, improved holes, and circular contours. They will write/edit simple programs in order to create these common part features. The goal will be to start out simple and move to programs that are efficient, effective, and clearly written.

Complete Course Listing

444-318 Computer Numerical Control (CNC) Milling-Operations and Programming 2
Credits: 2

Students will learn to program and machine more complex features using more advanced programming methods. The learner will program and machine rectangular/circular pockets, mill internal threads, and will use cutter compensation.

Complete Course Listing

444-319 Computer Numerical Control (CNC) Turning-Operations and Programming 2
Credits: 2

Students will learn to program and machine more complex features. The learner will program and machine taper, radii, threads, use cutter compensation, and live tooling.

Complete Course Listing

444-320 Computer Numerical Control (CNC) Milling-Operations and Programming 3
Credits: 2

Students will learn the advantages of several advanced programming techniques. They will learn to use multiple work offsets, loops, subprograms, and use variables in programs to shorten and simplify programs. All these programming techniques will be performed on 3 axis and 4 axis machining centers. Students will also learn advanced techniques for making programs run more efficiently.

Complete Course Listing
444-321 Basic Computer Aided Design (CAD) / Computer Assisted Manufacturing (CAM)
Credits: 2

Computer Aided Design (CAD) and Computer Assisted Manufacturing (CAM) have become standard tools used almost wherever CNC machines make parts. Students will use the Virtual Gibbs software to create geometry, setup tools, and produce machining operations. The learner will create machining operations for typical milled/turned part features such as faces, diameters, steps, slots, contours, holes, etc. Students will then post-process their CAD/CAM files to generate the CNC programs for specific CNC machines.

Complete Course Listing

444-324 Basic Computer Aided Design (CAD) / Computer Assisted Manufacturing (CAM)
Credits: 2

Using Virtual Gibbs, students will learn to create machining operations for additional milled/turned part features. They will create machining operations for threading, pockets, bored holes, and text. The student will then learn to create simple 3-D shapes (solids) and create the machining operations necessary to machine them. Once the file has been created and post processed, the student will run the part on a CNC machine.

Complete Course Listing

Nursing (543)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

543-101
Credits: 2

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Nursing Program.
Pre-requisites: (806-177 or 806-195 or 806-131) and (801-195 or 801-136)
Co-requisites: (809-188 or 809-120)
Complete Course Listing

543-103
Credits: 2

This course introduces the principles of pharmacology, including drug classifications and their effects on the body. Emphasis is on the use of the components of the nursing process when administering medications.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Nursing Program.
Pre-requisites: (806-177 or 806-195 or 806-131) and (801-195 or 801-136)
Co-requisites: (809-188 or 809-120)
Complete Course Listing

543-104
Credits: 2

This introductory clinical course emphasizes basic nursing skills and application of the nursing process in meeting the needs of diverse clients. Emphasis is placed on performing basic nursing skills, the formation of nurse-client relationships, communication, data collection, documentation, and medication administration.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Nursing Program.
Pre-requisites: (806-177 or 806-195 or 806-131) and (801-195 or 801-136)
Co-requisites: (809-188 or 809-120)
Complete Course Listing

543-105
Credits: 3

This course elaborates upon the basic concepts of health and illness as presented in Nursing Fundamentals. It applies theories of nursing in the care of clients through the lifespan, utilizing problem solving and critical thinking. This course will provide an opportunity to study conditions affecting different body systems and apply therapeutic nursing interventions. It will also introduce concepts of leadership, team building, and scope of practice.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-101) and (543-102) and (543-103) and (543-104)
Co-requisites: (806-179) and (801-196)
Complete Course Listing
543-106
Credits: 3

This course will cover topics related to health promotion in the context of the family. It 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 it will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyle choices. Nutrition, exercise, stress management, empowerment, and risk reduction practices are highlighted. Study of the family will cover dynamics, functions, discipline styles, and stages of development.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-101) and (543-102) and (543-103) and (543-104)
Co-requisites: (806-179) and (801-196)
Complete Course Listing

543-107
Credits: 2

This clinical experience applies nursing concepts and therapeutic interventions to clients across the lifespan. It also provides an introduction to concepts of teaching and learning. Extending care to include the family is emphasized.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-101) and (543-102) and (543-103) and (543-104)
Co-requisites: (806-179) and (801-196)
Complete Course Listing

543-108
Credits: 2

This clinical experience applies nursing concepts and therapeutic nursing interventions to groups of clients. It also provides an introduction to leadership, management, and team building.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-101) and (543-102) and (543-103) and (543-104)
Co-requisites: (806-179) and (801-196)
Complete Course Listing

543-109
Credits: 3

Complex Health Alterations I prepares the learner to expand knowledge from previous courses in caring for clients across the life span with alterations in cardiovascular, respiratory, endocrine, and hematologic systems as well as clients with fluid/electrolyte and acid-base imbalance, and alterations in comfort.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-105) and (543-106) and (543-107) and (543-108)
Co-requisites: (806-197) and (809-198)
Complete Course Listing

543-110
Credits: 2

This course will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed. Attention will be given to diverse at-risk populations. Mental health concepts will concentrate on adaptive/ maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-105) and (543-106) and (543-107) and (543-108)
Co-requisites: (806-197) and (809-198)
Complete Course Listing

543-111
Credits: 3

This intermediate level clinical course develops the RN role when working with clients with complex health care needs. A focus of the course is developing skills needed for managing multiple clients across the lifespan and priorities. Using the nursing process, students will gain experience in adapting nursing practice to meet the needs of clients with diverse needs and backgrounds.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-105) and (543-106) and (543-107) and (543-108)
Co-requisites: (806-197) and (809-198)
Complete Course Listing

543-112
Credits: 1

This course focuses on the development of advanced clinical skills. Content includes advanced IV skills, blood product administration, chest tube systems, basic EKG interpretation and nasogastric/feeding tube insertion.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-105) and (543-106) and (543-107) and (543-108)
Co-requisites: (806-197) and (809-198)
Complete Course Listing

543-113
Credits: 3

Complex Health Alterations II prepares the learner to expand knowledge and skills from previous courses in caring for clients with alterations in the immune, neuro-sensory, musculoskeletal, gastrointestinal, hepatobiliary, renal/urinary and the reproductive systems. The learner will also focus on management of care for clients with high-risk perinatal conditions, high-risk newborns and the ill child. Synthesis and application of previously learned concepts will be evident in the management of clients with critical/life threatening situations.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-109) and (543-110) and (543-111) and (543-112)
Co-requisites: (809-196)
Complete Course Listing
543-114
Credits: 2

This course covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-109) and (543-110) and (543-111) and (543-112)
Co-requisites: (809-196)
Complete Course Listing

543-115
Credits: 3

This advanced clinical course requires the student to integrate concepts from all previous courses in the management of groups of clients facing complex health alterations. Students will have the opportunity to further develop critical thinking skills using the nursing process in making clinical decisions. Continuity of care through interdisciplinary collaboration is emphasized.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-109) and (543-110) and (543-111) and (543-112)
Co-requisites: (809-196)
Complete Course Listing

543-116
Credits: 2

This clinical experience prepares the student to assume the role of graduate nurse. The course promotes clinical decision-making, delegation, and collaboration to achieve client and organizational outcomes. Continued professional development is fostered.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-109) and (543-110) and (543-111) and (543-112)
Co-requisites: (809-196)
Complete Course Listing

543-125
Credits: 2

The nursing bridge course is designed to promote success in the nontraditional student entering the 3rd semester of the BTC ADN Program. Expectations of the returning student nurse in the classroom and the clinical setting will be discussed. Course content includes the nursing process, mathematical calculations and specific nursing skills related to clinical practice.

Aid Code: 10 - Associate Degree.
Pre-requisites: (543-105) and (543-106) and (543-107) and (543-108) and (806-179) and (801-196)
Complete Course Listing

543-300
Credits: 3

This is a basic 120 hour Nursing Assistant course. Students who successful complete this course will be eligible to take the competency evaluation for inclusion on the Wisconsin Nurse Aide Registry as a Nursing Assistant/Home Health Aide. The Nursing Assistant works under the supervision of an RN or LPN performing bedside and personal care, gathering data such as vital signs or in-take and out-pot, and performing basic therapeutic interventions such as range of motion exercises. The course includes theory lecture, skills lab practice, and a clinical experience in a long-term care setting.

Aid Code: 30 - Short-term.
Pre-requisites: (Background Check, P) and (Health Forms Complete, P) and (COMPASS Pre-Algebra Skills, 025 or ACT Math, 15 or TABE 10 D Math Composite, 580 or TABE Math, 080 or ASSET Numerical Skills, 35 or AccuPlacer Arithmetic, 050 or Test Waived-College Degree or 854-765 or 834-109) and (COMPASS Reading Skills, 062 or ACT Reading, 15 or TABE 10 D Reading, 590 or TABE Reading, 080 or ASSET Reading Skills, 36 or AccuPlacer Reading Comp, 055 or Test Waived-College Degree or 858-790 or 838-104)
Complete Course Listing

543-302A
Credits: 2

This is a 72 hour course that builds on the knowledge and skills of Nursing Assistant course and prepares a student to function in an Acute Care (Hospital) setting. Skills such as blood glucose values, pre and post-op patient care, assisting with sterile procedures and, blood pressure monitoring are learned. Students also receive a certification in advanced dementia care. The course combines theory lecture, skills lab demonstrations and a clinical experience in acute care. Evaluation of student performance includes a written exam, return demonstrations, clinical performance, a research paper and an oral presentation. Current American Heart Association Healthcare Provider CPR Certification is required for entry into this course.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (Background Check, P) and (Health Forms Complete, P) and (CPR for Health Students, P)
Co-requisites: (543-300)
Complete Course Listing

543-309
Credits: 1

This one credit course is intended to give a HealthCare student the opportunity to explore working with persons with Developmental Disabilities/DD). The course will include learning about several selected, commonly occurring DD types and what medical conditions are more likely to affect each population as well as techniques for successfully working with this population. The externship component will include following one DD person including time at their place of residence/group home as well as time at their place of employment (i.e. KANDU).

Aid Code: 30 - Short-term.
Pre-requisites: 543-302A
Complete Course Listing
Office Technology (106)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

106-103 Medical Transcription
Credits: 4

This course provides the student with instruction using audio equipment and medically oriented materials. Emphasis is placed on developing the ability to use references to produce accurate, correctly formatted medical reports in an efficient manner, using correct spelling, punctuation, proofreading, and grammar. Medical report style and format are reviewed. The student will produce various medical and surgical reports representative of those typed in hospitals and clinics using a word processing program. Touch keyboarding with an accurate speed level of 40 wpm or more, basic computer, and advanced word processing skills are needed. Students should also have a strong background in grammar, punctuation, medical terminology, and medical document formatting.

Aid Code: 10 - Associate Degree.
Pre-requisites: (160-105 or 106-105) and (106-118) and (Typing Score, 040)
Complete Course Listing

106-105 Medical Editing and the Electronic Medical Record
Credits: 3

The emphasis of this course is on the creation and editing of medically oriented documents. The AHDI Book of Style will be used during a module that will include an introduction to transcription. Analysis and summarization of medical records will be covered. The curriculum will include textbook readings, workbook assignments, reviews of supporting material and weekly lab activities. The learner will demonstrate competency in a final written exam and selected client-care skills.

Aid Code: 30 - Short-term.
Complete Course Listing

106-107 Computerized Patient Billing
Credits: 3

This course emphasizes computerized patient billing procedures in the medical office environment. The students will input patient information, charges, payments, and appointments. In addition, reports and insurance forms are generated using a microcomputer-billing program. Confidentiality, claims adjudication, HIPAA, and compliance issues will be discussed.

Aid Code: 10 - Associate Degree.
Pre-requisites: 106-113
Complete Course Listing

106-109 Medical Office Administration
Credits: 3

In this capstone class students demonstrate their knowledge of all skills learned in the Medical Administrative Specialist program through simulation, discussion, research, and teamwork. Units of instruction will also include career development and professionalism in the health care setting.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-118) and (106-120 or 501-101) and (806-194 or 806-177 or 806-195)
Complete Course Listing

106-110 Legal Office Professionalism
Credits: 3

This course is a review of business English including spelling, capitalization, number usage, punctuation, word division, possessives, editing, and proofreading skills. Composition at the computer is also a part of this class. Specific legal office communication examples will be discussed. The course includes work on job finding skills, also. Resume writing, cover letter writing, and interviewing skills are included. A unit on using mail, the telephone, and e-mail in a legal office will be included as well as units on professional dress and ethics.

Aid Code: 10 - Associate Degree.
Pre-requisites: 106 180
Complete Course Listing

106-113 Health Insurance
Credits: 3

The student will gain knowledge and practical skill development in the health care insurance area. An introduction to insurance including understanding private and governmental providers; specific insurance terminology and their meaning; understanding the role of medical coding; privacy and HIPAA; and effectively using technology and resources for problem solving. The student will also be able to better understand his/her personal insurance coverage and some basic coding will be covered.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104) and (COMPASS Writing Skills, 070 or ACT English, 18 or ASSET Writing Skills, 44 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 801-195 or 801-136)
Complete Course Listing
106-114 Healthcare Records Management
Credits: 3
This course covers the systematic control of information in each phase of the record life cycle: creation, distribution, use, maintenance, and disposition. Topics will include systems of filing and storage (general and medical specific); organizing, managing, and controlling the system; potential careers; and trends in technology. Ethical/legal issues in the healthcare field will be addressed. Information on the EHR/EMR (electronic health record/electronic medical record) will also be covered. Simulations will provide hands-on experience with major filing classification systems in both paper and computer database (EHR) formats. Touch keyboarding and basic computer skills are necessary for this course.
Aid Code: 10 - Associate Degree.
Pre-requisites: (106-127)
Complete Course Listing

106-116 Credits: 3
This course is intended to teach students to identify internal/external customers, develop verbal, nonverbal, and listening communication skills, develop problem-solving techniques, and ways of adding value to a customer interaction. Additionally, students will examine how technology and social media impacts customer service, examine the impact of service breakdowns, and examine campaigns for customer loyalty. Students will develop the ability to lead and expand the customer service process, learn techniques for dealing with unhappy customers, and build skills for analyzing and prioritizing customer needs. The course will utilize MS Outlook as a business communication tool.
Aid Code: 10 - Associate Degree.
Complete Course Listing

106-118 Pharmacology for Medical Administrative Specialist
Credits: 2
Pharmacology for MAS (Medical Administrative Specialists) will provide an introduction to the use of pharmacology terminology and context. Included is information on medication actions, dosage forms, routes of administration, and drug uses. Students will research and create presentations on the pathophysiology of the human body in conjunction with treatments used to combat various diseases and conditions. Emphasis is on the terminology necessary for medical reports used in transcription and coding.
Aid Code: 10 - Associate Degree.
Pre-requisites: (103-106) and (106-120 or 501-101) and (806-194 or 806-177)
Complete Course Listing

106-120 Medical Terminology for MAS
Credits: 3
This course provides a combination of the study of medical vocabulary and the application of that vocabulary in an office setting. Students will learn the pronunciation, spelling, definition, and correct usage of medical terms used in a variety of healthcare office applications, with an emphasis on terminology necessary for medical reports used in transcription and coding. Students will also learn how to divide medical words into their component parts: the root word, the suffix, the prefix, and the combining form.
Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 801-195 and (COMPASS Reading Skills, 073 or 801-136) or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

106-124 Supervised Occupational Experience-Medical Office
Credits: 1
In this course, students apply and interview for medical office internship placements. Once selected, the student will apply the knowledge and skills obtained in the classroom to work environment.
Aid Code: 10 - Associate Degree.
Pre-requisites: (106-114 or 160-114) and (106-136 or 160-136) and (160-185) and (530-102 or 530-150)
Complete Course Listing

106-127 Administrative Office Communications
Credits: 3
Students will develop proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. This course also includes editing skills for improving format, consistency, clarity, conciseness, and completeness by incorporating the study of Business English. Activities require applying proofreading and editing skills to realistic business communications in both print and electronic formats. Touch keyboarding and basic word processing skills are helpful.
Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104) and (COMPASS Writing Skills, 070 or ACT English, 18 or ASSET Writing Skills, 44 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 801-195 or 801-136)
Complete Course Listing
106-132 Legal Transcription
Credits: 3

Instruction is given on the use of transcription with emphasis on the production of legal transcription. The goal in this class is the production of error free documents with periodic spelling checks. There is added emphasis on the improvement of the use of legal terminology, English, proofreading, and listening skills.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-133) and (106-152)
Complete Course Listing

106-133 Business Writing and Document Formatting
Credits: 3

Document Formatting further develops keyboarding skills and emphasizes the efficient production of correctly formatted professional business documents. Additionally, the class will focus on applying correct grammar/spelling/punctuation/word usage to business communications and the use of appropriate communication style. The ability to use word processing software is expected at the beginning of the course along with touch keyboarding skill (a minimum of 45 wpm for 5 minutes with 5 or fewer uncorrected errors).

Aid Code: 10 - Associate Degree.
Pre-requisites: 106-146
Complete Course Listing

106-134 Legal Research and Writing
Credits: 3

This course covers citing federal and state cases, statutes, legislative history materials, treatises, law reviews, as well as some additional secondary sources. Finding materials from citations is included. The basics of computerized legal research and writing, along with the preparation of legal documents, are stressed.

Aid Code: 10 - Associate Degree.
Pre-requisites: 106-152
Complete Course Listing

106-136 Patient Billing and Reimbursement
Credits: 4

This course emphasizes computerized patient billing procedures in the health-care environment utilizing practice management software and electronic health records. Reports and insurance forms are generated using microcomputer billing software for physician and hospital billing. The students will input patient information, charges, payments and appointments. Included in patient billing is the understanding of various collection practices, compliance, coding and linkage, and hospital billing. Correct use of telephone skills and being sensitive to confidentiality will be covered. Students will continue to build upon previous medical insurance and patient billing classes by reviewing in depth various medical insurance providers and completing proper documentation for billing.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-113) and (106-120 or 501-101)
Complete Course Listing

106-138 Introduction to Law and Legal Terminology
Credits: 3

This course will familiarize students with the fundamental principles and procedures of the legal system and introduce them to legal terminology. The goal of the course is to prepare students with basic legal knowledge to progress to more advanced legal courses.

Aid Code: 10 - Associate Degree.
Complete Course Listing

106-139 Records Management for Law Offices
Credits: 3

This course will familiarize students with the fundamental principles and procedures of managing records in a legal environment. Students will work on their English and proofreading skills with paper and electronic records. Students will be introduced to records management systems related to the office environment.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-138) and (106-181)
Complete Course Listing

106-140 Keyboarding
Credits: 1

Students will master the computer keyboard by touch including the letters and numeric keypad. Computer software is used to begin development of acceptable speed and accuracy levels.

Aid Code: 10 - Associate Degree.
Complete Course Listing

106-141 Legal Document Processing
Credits: 3

During the first half of this course, students will learn WordPerfect. During the second half of this course, students will learn how to read, understand, and keyboard legal documents. They will acquire experience in formatting and creating a variety of documents, printed forms, and court papers. Proofreading habits will be refined.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-138) and (106-180 or 106-140)
Complete Course Listing

106-143 Skillbuilding
Credits: 1

This course focuses on the development of keyboarding speed and accuracy. Diagnostic computer software allows students to determine their own particular weaknesses and error patterns and then select drills specifically designed to correct those weaknesses. The grading structure in this course is based on individual student speed/accuracy levels upon entering the course. A minimum touch (no finger or key watching) typing speed of 20 wpm/5 min is required for entry into the course. Students who are not touch typists should first enroll in 106-140 Keyboarding. This course is a requirement for the Administrative Professional, Legal Administrative Professional, and the Medical Administrative Specialist programs. There is no test out available for this course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-140 or Typing Score, 020)
Complete Course Listing
106-145 Information Technology Essentials
Credits: 3

This course provides an introduction to computers and information processing terms, hardware, software, networks, and buying a computer. Major topics also include effective use of a web browser, Microsoft Outlook's electronic mail, calendar, and contacts modules, and the basics of Windows operating system. Touch keyboarding skills are recommended.

Aid Code: 10 - Associate Degree.
Complete Course Listing

106-146 Word Processing Applications
Credits: 3

Students use word processing software to create, format, and edit business documents applying features such as headers/footers, macros, merge, templates, tables, columns, outlines, fonts, and graphics. Software functions, theory and production will be assessed. Students will be prepared to take both the core level and expert level Microsoft Office Specialist certification exams. Touch keyboarding skills of 40 wpm for 5 minutes with 5 or fewer uncorrected errors are required for this course.

Basic computer skills are recommended.

Aid Code: 10 - Associate Degree.
Pre-requisites: Typing Score, 040
Complete Course Listing

106-151 Legal Office Procedures
Credits: 4

This course is designed to cover the practical aspects of law office management, including the functions of management, administrative procedures, docket control, time and billing procedures, and case management. Job-seeking skills will be covered, including the preparation of a resume.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-116) or (106-117)
Complete Course Listing

106-152 Legal Document Production 1
Credits: 3

This course coordinates with other courses to provide specialized training in the understanding and actual preparation of legal documents. Areas of specialization include civil litigation, real estate, and divorce. Other topics covered include ethics, client interviews and interview forms, and court structure.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-138) and (106-146) and (106-181)
Complete Course Listing

106-153 Administrative Office Procedures
Credits: 3

This course covers office procedures concepts and practices. Students will develop proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. This course also includes editing skills for improving format, consistency, clarity, conciseness, and completeness. Activities require applying proofreading and editing skills to realistic business communications in both print and electronic formats. In addition, students learn the Association of Records Managers and Administrators (ARMA) filing rules through experience with various filing methods in a practice simulation. Students will also be introduced to file maintenance procedures, supplies, and equipment. Critical-thinking, problem-solving, and job performance skills in a global business environment are also included. Touch keyboarding and basic word processing skills are helpful.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-145 or 106-116)
Complete Course Listing

106-154 Legal Document Production 2
Credits: 3

Advanced legal procedures intended to provide more in-depth training on the order of events in several fields of law are presented in this course. Attorneys with expertise in each of these areas of law assist in teaching the units. The primary course objective is to provide in-depth procedural information in each area of law.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-152)
Complete Course Listing

106-155 Publication Design and Production
Credits: 3

Utilizing software such as Adobe InDesign, Photoshop, and Illustrator, this course introduces basic design principles related to business publications. Includes examination and use of technology tools most commonly used for publications in a business office. The focus of this course is based on touch keyboarding skills of 40 words per minute or higher in a 5 minute test with 5 or fewer errors and basic computer skills.

Aid Code: 10 - Associate Degree.
Complete Course Listing

106-156 Business Database
Credits: 3

This course is designed to teach the basic elements of Microsoft Access. Applications will include the creation of a database; finding, displaying, and deleting records; providing listings and reports; making tables; and managing mailing lists. Students will be prepared to take the Microsoft Office Specialist certification exam. Basic computer skills are expected.

Aid Code: 10 - Associate Degree.
Complete Course Listing
106-158 Supervised Occupational Experience-Administrative Professional
Credits: 1
This course consists of 72 hours of practical experience in an office environment. Students will be expected to obtain a job and demonstrate technical and interpersonal skills necessary for office employment. BTC instructors will coordinate management of students in approved positions under the supervision and guidance of cooperating employers. Students will also finalize employment portfolios and other employment related documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (101-102) and (106-156) and (106-165) and (106-181) and (106-182) and (106-183)
Co-requisites: (106-160)

106-159 Business Spreadsheets
Credits: 3
Using Microsoft Excel, students will learn the elements of a spreadsheet: worksheet capabilities (create, modify, enhance, save, print, and erase worksheets), graphing capabilities (create graphs, bar charts, and pie charts), and database capabilities (create, sort, and query). Students will be prepared to take both the core level and expert level Microsoft Office Specialist certification exams. Basic computer skills are expected.

Aid Code: 10 - Associate Degree.

106-160 Administrative Office Management
Credits: 3
This capstone course focuses on the leadership role for office management and enhances skills necessary to provide organizational and technical support in a contemporary office setting. Topics covered include project management, research, and travel and meeting planning.

Aid Code: 10 - Associate Degree.
Pre-requisites: (103-106) and (106-116) and (106-181) and (106-183)

106-165 Business Presentations and Training
Credits: 2
Microsoft PowerPoint software will be used to create dynamic, professional-looking presentations. Emphasis will be on providing training to administrative staff that will cover analyzing/determining training needs, understanding learning styles, development of resources/curriculum, using presentation/training technologies, and evaluating training success. Students will be prepared to take the Microsoft Office Specialist certification exam. Touch keyboarding and basic word processing skills are necessary.

Aid Code: 10 - Associate Degree.

106-176 Legal Office Applications
Credits: 3
Legal Office Applications is a course designed to provide the student with the foundational skills needed to operate a computer in a law office environment and an introduction of some typical software applications used in a legal office.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-146) and (106-181)

106-181 Office Professionalism
Credits: 3
The mission of the course is to empower students to enhance performance through personal self-management. The course, which is built around Tom Rath's "StrengthsFinder" provides an opportunity to develop both personally and professionally in effectively dealing with change. In addition, students will focus on the soft skills of team building and customer service through the use of problem-based video "field-trips". This course will utilize MS Outlook as a business communication tool.

Aid Code: 10 - Associate Degree.

106-182 Office Project Management
Credits: 3
This course will introduce students to Microsoft Office Project and Visio. This project-based course will have students apply basic skills and strategies for making effective business decisions, explore theory and application of project management, develop business acumen, and apply problem solving tools/techniques to business situations through the integration of the software resources presented.

Aid Code: 10 - Associate Degree.
Pre-requisites: (106-145 or 106-116)

106-183 Meeting and Event Planning
Credits: 3
This course provides knowledge in basic project management skills utilizing meeting and event planning as the primary focus. Topics include conducting the planning activities, managing the finances, promoting the meeting/event, facilitating the on-site needs, analyzing contracts, preparing minutes, and conducting follow-up activities while communicating effectively with all stakeholders. The focus of this course is based on touch keyboarding skills of 40 words per minute or higher in a 5 minute test with 5 or fewer errors and basic computer skills.

Aid Code: 10 - Associate Degree.
Co-requisites: (106-116) and (106-181)

Complete Course Listing
106-184 Web Technologies Office Management
Credits: 3

Intended to introduce students to advanced applications used by office professionals, this course provides an introduction to programs such as Adobe Acrobat, Illustrator, and Dreamweaver, Microsoft Publisher, and/or other computer applications used by administrative professionals. Students will apply basic skills and strategies for designing and maintaining a website and/or class intranet while exploring web office processes and procedures.
Aid Code: 10 - Associate Degree.
Complete Course Listing

106-185 Medical Document Formatting
Credits: 3

Students will learn to use word processing software to create, format, and edit medical documents. Course includes the development of proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. Work will also be done to improve speed and accuracy through the use of timed writings.
Aid Code: 10 - Associate Degree.
Pre-requisites: (106-127) and (Typing Score, 030)
Complete Course Listing

106-186
Credits: 1

This course is intended to teach students to identify internal/external customers, develop verbal, nonverbal, and listening communication skills, develop problem-solving techniques, and ways of adding value to a customer interaction. Additionally, students will examine how technology and social media impacts customer service, examine the impact of service breakdowns, and examine campaigns for customer loyalty. Students will develop the ability to lead and expand the customer service process, learn techniques for dealing with unhappy customers, and build skills for analyzing and prioritizing customer needs. The course will utilize MS Outlook as a business communication tool.
Aid Code: 10 - Associate Degree.
Complete Course Listing

106-309 Customer Service Essentials
Credits: 1

This course is intended to teach students to identify internal/external customers, develop verbal, nonverbal, and listening communication skills, develop problem-solving techniques, and ways of adding value to a customer interaction. Additionally, students will examine how technology and social media impacts customer service, examine the impact of service breakdowns, and examine campaigns for customer loyalty. Students will develop the ability to lead and expand the customer service process, learn techniques for dealing with unhappy customers, and build skills for analyzing and prioritizing customer needs.
Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-335
Credits: 3

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-340
Credits: 2

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-341
Credits: 1

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-345
Credits: 8

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-350
Credits: 2

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

106-368
Credits: 4

Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing

Pharmacy (536)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

536-302 Introduction to Pharmacy Practice
Credits: 1

This course is an overview of the state and federal laws governing pharmacy practice. It will also provide an overview of the materials a student must master to work as a pharmacy technician. The student will learn the challenges associated with working as a healthcare professional. A thorough knowledge of weights and measures, and proficiency in the areas of fractions, ratios, proportions, decimals, and metric system conversions is strongly recommended for successful completion of this course.
Aid Code: 31 - One-year Technical Diploma.
Complete Course Listing
536-312 Therapeutic Agents
Credits: 4

Students will learn the anatomy and physiology of the 13 systems in the human body. In addition, they will learn diseases that affect these systems. Students will be shown an overview of medicinal treatments for the diseases.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (536-302)
Complete Course Listing

536-322 Pharmacy Calculations
Credits: 2

The student will use basic algebra, ratios, conversions, and everyday mathematical formulas to complete pharmaceutical calculations.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (536-302)
Complete Course Listing

536-332 Pharmacy Practice
Credits: 2

Students will learn the day to day duties of a Pharmacy Technician in many different settings. Students will learn how to order medications, supplies, and devices from wholesalers. They will also learn how to maintain a profitable inventory and how to service pharmaceutical equipment. Students will learn the required record keeping necessary for maintaining a pharmacy with respect to state and federal laws.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (Background Check, P or Background Check, N)
Co-requisites: (536-302) and (536-312)
Complete Course Listing

536-342 Prescription Processing
Credits: 3

In this course, students will learn how to interpret prescription orders and enter the orders into a computer system. Students will learn the top 200 medications in brand and generic forms, as well as their strengths, uses, and auxiliary labels. Students will also learn which medications are controlled and how they need to be handled differently compared to non-controlled medications.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (536-302) and (536-312) and (536-322)
Complete Course Listing

536-352 Pharmacy Customer Service
Credits: 2

The main focus of this class is professionalism on the job. Students will learn the soft skills needed to deal with difficult situations. Working with customers, phone skills, and conflict resolution are keys to this course. Students will participate in role plays in the classroom to learn how to act during adverse situations that may arise in a pharmacy setting.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (536-302)
Complete Course Listing

536-362 Pharmaceutical Preparations
Credits: 4

This course covers the variety of medication preparations for patient use. Students will prepare IV solutions, IM and SQ injections, various compounded creams, ointments, capsules, and suppositories. Students will label final products correctly and will use appropriate auxiliary stickers. Students will also review mathematical calculations.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (536-302) and (536-322)
Complete Course Listing

536-372
Credits: 2

In this course the student will learn how to bill different entities for prescriptions and prescription services. This includes cash paying customers as well as those with insurance. This course provides an introduction to the differences between HMOs, PPOs, state funded insurances, federally funded insurances, and workman's compensation claims. This course introduces students to the information needed from the patient and pharmacy to process third party claims. Students participate in role playing scenarios for contacting insurance companies when experiencing difficulties receiving payment for prescriptions.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (536-302) and (536-322)
Co-requisites: (536-342)
Complete Course Listing

536-382 Pharmacy Clinical Practice
Credits: 2

This course requires Pharmacy Technician students to integrate and apply knowledge and skills from all previous Pharmacy Technician courses in acute patient care settings. The settings include and are not limited to: retail pharmacies, hospital pharmacies, home infusion pharmacies, clinical pharmacies, compounding pharmacies, and nursing home pharmacies. The students will work under the direct supervision of pharmacists and certified technicians.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (536-312) and (536-322) and (536-332) and (501-107 or 103-106) and (501-101) and (801-390 or 801-311)
Co-requisites: (536-342) and (536-352) and (536-362) and (536-372)
Complete Course Listing

Physical Therapy Assistant (524)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

524-139
Credits: 4

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.

Complete Course Listing
524-140
Credits: 2
Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communication skills.
Aid Code: 10 - Associate Degree.
Complete Course Listing

524-142
Credits: 3
Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-156) and (524-157)
Complete Course Listing

524-143
Credits: 4
Develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-139)
Complete Course Listing

524-144 PTA Principles of Neuromuscular Rehabilitation Credits: 4
Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-142)
Complete Course Listing

524-145 PTA Principles of Musculoskeletal Rehabilitation Credits: 4
Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-138 or 524-156) and (524-139) and (524-141 or 524-157)
Co-requisites: (524-142) and (524-143) and (524-147)
Complete Course Listing

524-146 PTA Principles of Cardiopulmonary & Integumentary Conditions Credits: 3
Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-139) and (524-142)
Complete Course Listing

524-147
Credits: 2
Provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-139)
Co-requisites: (524-142) and (524-143)
Complete Course Listing

524-148
Credits: 3
Provides another part-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-142) and (524-143) and (524-145) and (524-147)
Co-requisites: (524-140) and (524-144) and (524-146)
Complete Course Listing

524-149
Credits: 2
A capstone course that integrates concepts of pathology, physical therapy interventions and data collection across the lifespan. In addition the PTA’s role in health, wellness and prevention; reintegration, and physical therapy interventions for special patient populations will be addressed.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-143) and (524-144) and (524-145) and (524-146) and (524-148)
Complete Course Listing

524-150
Credits: 2
Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-140) and (524-144) and (524-145) and (524-146) and (524-147)
Complete Course Listing

524-151 PTA Clinical Practice 3 Credits: 5
Provides a full-time clinical experience to apply foundational elements, knowledge, and technical skills required of the entry level physical therapist assistant in various practice settings.
Aid Code: 10 - Associate Degree.
Pre-requisites: (524-140) and (524-144) and (524-146) and (524-148)
Co-requisites: (524-149) and (524-150)
Complete Course Listing
524-156 PTA Applied Kinesiology 1
Credits: 4
Introduces basic principles of musculoskeletal anatomy, kinematics, and clinical assessment. Students locate and identify muscles, joints, and other landmarks of the lower quadrant in addition to assessing range of motion and strength.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.
Complete Course Listing

524-157 PTA Applied Kinesiology 2
Credits: 3
Applies basic principles from PTA Kinesiology 1 to the axial skeleton and upper quadrant including location and identification of muscles, joints and other landmarks. Assess range of motion and strength of the axial skeleton and upper quadrant. Integrate analysis of posture and gait.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.
Pre-requisites: (801-195 or 801-136) and (801-196) and (804-107) and (806-139) and (806-177)
Co-requisites: (524-156) and (524-139)
Complete Course Listing

Quality Interdisciplinary (625)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

625-101
Credits: 3
This course prepares participants to develop a philosophy of quality, incorporate a customer focus, contribute constructively in a team environment, and use a scientific approach to solve problems. Application of basic quality concepts is emphasized.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.
Complete Course Listing

Radiologic Technology (526)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

526-130 Introduction to Diagnostic Medical Sonography
Credits: 2
This course introduces the student to the history of ultrasound and the evolution of its medical applications. Topics include licensure, use and maintenance of ultrasound equipment, ergonomics, communication and critical thinking skills, and the responsibilities of Diagnostic Medical Sonographers in the workplace. Program policy and procedures, program curriculum and student rights and responsibilities are also included in this course.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Co-requisites: (526-146) and (526-132)
Complete Course Listing

526-131 DMS General Procedures 1
Credits: 4
This course prepares the Diagnostic Medical Sonography student to perform ultrasound evaluation of the liver, gall bladder, biliary tree, pancreas, kidneys, spleen, abdominal vascular system, and introduction to the female pelvis. The abdominal portion of this course will cover the anatomy, physiology, and the sonographic appearance of the peritoneal space, prevertebral vessels, biliary, liver and pancreas. Testicular small parts will discuss anatomy, physiology, pathology and pathophysiology of the scrotum. The gynecological portion of this course will cover normal anatomy and physiology of the female pelvis including the bony pelvis, vascular anatomy, muscles, ligaments, physiology of the menstrual cycle. The laboratory portion of this course permits the student to simulate ultrasonic examinations of anatomical structures for the purposes of identification of structures and pathology, and to reinforce scanning technique in preparation for performing these examinations in the clinical setting. The diagnostic medical sonography student will be familiarized with the scanning protocols and normal and abnormal sonographic findings.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Pre-requisites: (526-130) and (526-132) and (526-146)
Co-requisites: (526-134) and (526-136) and (526-156 or 806-175)
Complete Course Listing

526-132 DMS Clinical 1
Credits: 2
In the first clinical course for the Diagnostic Medical Sonography Program, students become acclimated to the clinical environment, become familiar with policies, procedures and protocols at the departmental and institutional level. Students begin the performance of Diagnostic Medical Sonography procedures under the direction of staff sonographers or program faculty in accordance with all program and institutional requirements.
Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Co-requisites: (526-146) and (526-130)
Complete Course Listing
526-133 DMS General Procedures 2
Credits: 4

This course prepares Diagnostic Medical Sonography Students to perform ultrasound evaluations of the male and female pelvis, first trimester obstetrics, introduction to second and third trimester obstetrics and thyroid exams. The gynecological portion of this course will cover normal anatomy and physiology of the female pelvis including the bony pelvis, vascular anatomy, muscles, ligaments, physiology of the menstrual cycle and normal anatomy of the pediatric and postmenopausal pelvis. The introduction to obstetrics will cover the physiology of pregnancy, embryology, spermatogenesis, oogenesis and the development of the fetus as visualized on ultrasound during the first trimester. This course will give the sonography students obstetrical ultrasound protocols and familiarize the student with normal fetal anatomy, as demonstrated on ultrasound. The laboratory portion of this course permits the student to simulate ultrasound examinations of anatomical structures for the purposes of identification of structures and pathology, and to reinforce scanning technique in preparation for performing these examinations in the clinical setting.

Aid Code: 10 - Associate Degree.

Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

Pre-requisites: (526-131) and (526-134) and (526-136) and (526-156 or 806-175)

Co-requisites: (526-137) and (526-139)

Complete Course Listing

526-134 DMS Clinical 2
Credits: 2

The second clinical course for the Diagnostic Medical Sonography Program builds on the knowledge and skills acquired during the first clinical course. Students continue to perform basic sonographic examinations of the abdomen, pelvis, and OB/GYN structures under the direct supervision of a registered sonographer, and begin to perform examinations with increased independence.

Aid Code: 10 - Associate Degree.

Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

Pre-requisites: (526-130) and (526-132) and (526-146)

Co-requisites: (526-131) and (526-136) and (526-156 or 806-175)

Complete Course Listing

526-135 DMS General Procedures 3
Credits: 3

This course prepares Diagnostic Medical Sonography Students to perform ultrasound evaluations of the adrenals, male pelvis, gastrointestinal tract, anterior abdominal wall, musculoskeletal system, thyroid, breast, scrotum and the gravid uterus. The abdominal portion of this course will cover the anatomy, physiology, pathology, pathophysiology, and the sonographic appearance of the adrenals, male pelvis, GI tract, anterior abdominal wall and musculoskeletal ultrasound. The small parts portion will discuss the anatomy, physiology, pathology and pathophysiology of the thyroid, breast and scrotum as visualized on ultrasound. The diagnostic medical sonography student will be familiarized with the scanning protocols and normal and abnormal sonographic findings. The obstetrical portion will cover fetal anomalies as visualized on ultrasound during the first trimester, second trimester, and third trimester. This course will cover abnormal fetal development to include discussion of pathology, pathophysiology and teratogens. The laboratory portion of this course permits the student to simulate ultrasound examinations of anatomical structures for the purposes of identification of structures and pathology, and to reinforce scanning technique in preparation for performing these examinations in the clinical setting.

Aid Code: 10 - Associate Degree.

Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

Pre-requisites: (526-133) and (526-137) and (526-139)

Co-requisites: (526-140)

Complete Course Listing

526-136 DMS Physics I
Credits: 3

This course explores the principles of general wave physics as they apply to the application of Diagnostic Medical Sonography. The student will learn the physical factors that make the production necessary for the performance of diagnostic sonographic examinations. Topics also include transducer construction and operation, components of the ultrasound machine, display modes, image recording systems.

Aid Code: 10 - Associate Degree.

Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

Pre-requisites: (526-130) and (526-132) and (526-146)

Co-requisites: (526-131) and (526-134) and (526-156 or 806-175)

Complete Course Listing

526-137 DMS Clinical 3
Credits: 2

In the third clinical education course for the Diagnostic Medical Sonography Program, students continue the process of performing routine examinations of the abdomen, pelvis, small parts, and OB/GYN structures more independently, continuing the process of attaining clinical competency in these various procedures.

Aid Code: 10 - Associate Degree.

Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

Pre-requisites: (526-131) and (526-134) and (526-136) and (526-156 or 806-175)

Co-requisites: (526-133) and (526-139)

Complete Course Listing
This final general DMS procedures course permits the student to attain mastery of all sonographic anatomy, physiology, and pathophysiology of all anatomical parts and systems of the abdomen, small parts, and OB/GYN systems. The anatomy, physiology, pathology and pathophysiology of the breast will be discussed along with sonographic visualization and protocol. The abdomen and abdominal vasculature pathology and pathophysiolog will be studied including the gastrointestinal tract and abdominal wall. The laboratory portion of this course permits the student to attain mastery of the scanning techniques of all ultrasound examinations of anatomical structures and associated with the abdomen, small parts, and OB/GYN systems.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-135) and (526-140)

**Co-requisites:** (526-138) and (526-142)

Complete Course Listing

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This course continues building on the principles of general wave physics as they apply to the application of Diagnostic Medical Sonography. Topics include Doppler applications, imaging artifacts, and performance & safety. Biological effects of ultrasound energy are also explored. SPI registry review is the final component of this course.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-131) and (526-134) and (526-136) and (526-156 or 806-175)

**Co-requisites:** (526-133) and (526-137)

Complete Course Listing

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In the fourth clinical education course for the Diagnostic Medical Sonography Program, students work towards attaining mastery of all ultrasound procedures of the abdomen and pelvis, small parts, and OB/GYN structures by performing these examinations with increased independence.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-133) and (526-137) and (526-139)

**Co-requisites:** (526-135)

Complete Course Listing

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This course introduces the Diagnostic Medical Sonography student to the principles of vascular sonographic imaging. Topics include vascular physics and terminology, arterial, venous, and cerebrovascular applications of ultrasound, and normal, abnormal and pathologic sonographic presentation of vascular anatomy. The laboratory portion of this course permits the student to simulate ultrasound examinations of anatomical structures for the purposes of identification of structures and pathology, and to reinforce scanning technique in preparation for performing these examinations in the clinical setting.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-135) and (526-140)

**Co-requisites:** (526-138) and (526-142)

Complete Course Listing

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In the fifth clinical education course for the Diagnostic Medical Sonography Program, students continue the process of performing routine examinations of the abdomen and pelvis, small parts, and OB/GYN structures. Students also begin the process of observing and performing examinations of the peripheral vascular system under the direct supervision of a registered sonographer.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-135) and (526-140)

**Co-requisites:** (526-138) and (526-141)

Complete Course Listing

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This is the second course designed to prepare the Diagnostic Medical Sonography student to perform ultrasonic evaluation of vascular sonographic structures. Topics include vascular anatomy, physiology, and terminology related to imaging of arterial, venous, and cerebrovascular structures. The laboratory portion of this course permits the student continued and advanced opportunity to simulate ultrasound examinations of anatomical structures for the purposes of identification of structures and pathology, and to reinforce scanning technique in preparation for performing these examinations in the clinical setting.

**Aid Code:** 10 - Associate Degree.

**Restrictions:** Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.

**Pre-requisites:** (526-138) and (526-141) and (526-142)

**Co-requisites:** (526-144) and (526-145)

Complete Course Listing
526-144 DMS Clinical 6
Credits: 2
In this final clinical education course for the Diagnostic Medical Sonography Program, the student completes the process of becoming competent in all general and abdominal, small parts, OB/GYN, and vascular sonographic procedures, and can perform all examinations required for graduation independently.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Pre-requisites: (526-138) and (526-141) and (526-142)
Co-requisites: (526-143) and (526-145)
Complete Course Listing

526-145 DMS Registry Review
Credits: 2
This course is a review of all program curricula and musculoskeletal ultrasound, preparing the student to successfully sit for the certification examinations in Diagnostic Medical Sonography prepared by the American Registry of Diagnostic Medical Sonographers (ARDMS,) or the examination in Ultrasound prepared by the American Registry of Radiologic Technologists (ARRT). Various methods of preparation, including the use of mock examinations will be utilized.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Pre-requisites: (526-138) and (526-141) and (526-142)
Co-requisites: (526-143) and (526-144)
Complete Course Listing

526-146 DMS Cross Sectional Anatomy
Credits: 2
This course challenges students who have an interest in sonography to apply their current knowledge of human anatomy and to reference the cross sectional world of imaging to that of ultrasound imaging. Students will learn to visualize anatomical structures in sonographic images as well as other imaging modalities such as computed tomography (CT scan) and magnetic resonance imaging (MRI). Anatomical structures will be studied in axial, sagittal, and coronal body planes. This course is designed to enhance the sonographer's scanning abilities in an attempt to reinforce knowledge of human anatomy.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to 105262, Diag Med Sonography Vascular Programs.
Co-requisites: (526-130) and (526-132)
Complete Course Listing

526-149 Radiographic Procedures 1
Credits: 5
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.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-150 Computed Tomography Sectional Anatomy and Pathology
Credits: 3
Presentation of anatomical structures as they appear in Computed Tomography (CT) images produced in axial, sagittal, coronal, and oblique sections. This course will also explore pathological conditions commonly diagnosed through the use of CT.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Computed Tomography Program.
Complete Course Listing

526-151 Computed Tomography Procedures
Credits: 3
This course provides instruction of specific computed tomographic procedures and includes content related to procedure indications and contraindications, patient preparation, orientation, contrast media usage and positioning. Information related to patient history, assessment, and education is also included. CT procedures will be taught for differentiation of specific structures, patient symptomology and pathology. CT images studied will be reviewed for quality, anatomy and pathology.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Computed Tomography Program.
Complete Course Listing

526-152 CT Physics and Instrumentation
Credits: 3
This course is designed to promote an understanding of the physics of computed tomography. Topics covered include the characteristics of x-radiation and CT beam attenuation, as well as data acquisition and manipulation techniques. Computed tomography systems will be explored covering topics including CT tube configuration, collimator and detector design, and characteristics and functions and the CT computer. Lastly, CT image processing and display will be examined from data acquisition through post processing, archiving and communication.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Computed Tomography Program.
Complete Course Listing

526-153 Computed Tomography Clinical
Credits: 2
The CT clinical education course allows the student to complete the clinical experience requirements to be eligible to sit for the post-primary ARRT certification examination in Computed Tomography (CT). This course is also intended to develop competence and expertise in a variety of computed tomography procedures in the learner.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Computed Tomography Program.
Pre-requisites: (526-150) and (526-151)
Complete Course Listing
526-156 Pathophysiology
Credits: 3

The major emphasis of this course will be on the physiological factors that underline diseases states. The study of the basic mechanisms of diseases commonly seen in primary care as well as disease processes that mimic more common disorders will be discussed. Pediatric, adult and geriatric age groups covered.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Pre-requisites: (526-130) and (526-132) and (526-146)
Co-requisites: (526-131) and (526-134) and (526-136)
Complete Course Listing

526-158 Introduction to Radiography
Credits: 3

Introduces students to the role of radiography in health care. Students apply medical terminology, legal and ethical considerations to patient care and pharmacology in the radiologic sciences.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-159 Radiographic Imaging 1
Credits: 3

Introduces radiography students to the process and components of analog imaging. Students determine the factors that affect image quality including contrast, density, detail, and distortion.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-168 Radiography Clinical 1
Credits: 2

This beginning level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-170 Radiographic Imaging 2
Credits: 3

Explores film processing components as well as the principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within analog and digital systems. Principles of digital system quality assurance and maintenance are presented.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Pre-requisites: 526-159
Complete Course Listing

526-174 ARRT Certification Seminar
Credits: 2

Provides preparation for the for the national certification examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are utilized.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-189 Radiographic Pathology
Credits: 1

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.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Radiography Program.
Complete Course Listing

526-190 Radiography Clinical 5
Credits: 2

This fifth level clinical course prepares radiography students to perform radiologic procedures on patients with some supervision. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.

Aid Code: 10 - Associate Degree.
Pre-requisites: 526-199
Complete Course Listing

526-191 Radiographic Procedures 2
Credits: 5

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.

Aid Code: 10 - Associate Degree.
Pre-requisites: 526-149
Complete Course Listing

526-192 Radiography Clinical 2
Credits: 3

This second level clinical course prepares radiography students to perform radiologic procedures on patients with extensive supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the development of communication and critical thinking skills appropriate to the clinical setting.

Aid Code: 10 - Associate Degree.
Pre-requisites: 526-168
Complete Course Listing
526-193 Radiography Clinical 3  
Credits: 3  
This third level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. An emphasis of the course is the demonstration of communication and critical thinking skills appropriate to the clinical setting.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 526-192  
Complete Course Listing

526-194 Imaging Equipment Operation  
Credits: 3  
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.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Radiography Program.  
Complete Course Listing

526-195 Radiographic Quality Analysis  
Credits: 2  
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.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Radiography Program.  
Complete Course Listing

526-196 Modalities  
Credits: 3  
Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Radiography Program.  
Complete Course Listing

526-197 Radiation Protection and Biology  
Credits: 3  
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.  
Aid Code: 10 - Associate Degree.  
Restrictions: Restricted to students admitted to Radiography Program.  
Complete Course Listing

526-198 Radiography Clinical 6  
Credits: 2  
This final clinical course requires students to integrate and apply all knowledge learned in previous courses to the production of high quality images in the clinical setting. Students apply radiation protection and standard precautions in the production of images 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.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 526-190  
Complete Course Listing

526-199 Radiography Clinical 4  
Credits: 3  
This fourth level clinical course prepares radiography students to perform radiologic procedures on patients with supervision and direction. Students apply radiation protection and standard precautions in the production of radiographs in a health care setting while adhering to legal and ethical guidelines. Students are encouraged to demonstrate independent judgment in the performance of clinical competencies.  
Aid Code: 10 - Associate Degree.  
Pre-requisites: 526-193  
Complete Course Listing

Reading (858)  
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

858-713 BSE Reading 1  
Credits: 3  
Introduces basic reading skills needed by adults for everyday living. The students expand their vocabulary by learning to recognize and pronounce words. Emphasis is placed on understanding the material read, including books, computer software and newspaper articles. A variety of instructional approaches will be used.  
Aid Code: 73 - Beg ABE (0-5.9).  
Complete Course Listing

858-762 Reading 2  
Credits: 3  
This course will include dictionary use, vocabulary in context, main ideas, supporting details, inferences and vocabulary building. Successful completion of Reading 2 is required for progression to Reading 3. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*  
Aid Code: 74 - Interm ABE (6.0-8.9).  
Pre-requisites: (COMPASS Reading Skills, 001 or AccuPlacer Reading Comp, 020 or ACT Reading, 01)  
Complete Course Listing
858-763 BSE Reading for Accuplacer
Credits: 2

This course will provide instruction in reading skills needed to be successful on the Accuplacer reading test.

Aid Code: 74 - Interm ABE (6.0-8.9).
Complete Course Listing

858-764 Reading 2 GED Review
Credits: 3

The course focuses on reading in the GED content areas. It includes skills of comprehension, application, and analysis as needed for the GED content area tests at the pre-GED level. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 74 - Interm ABE (6.0-8.9).
Complete Course Listing

858-771 Reading 3 GED Review
Credits: 3

This course further develops reading in the GED content areas. It includes continued work in comprehension, application and analysis as needed for the GED content area tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Complete Course Listing

858-790 Reading 3
Credits: 2

This course focuses on word analysis strategies, building vocabulary and comprehending at an inferential and critical level. The purpose is to establish the groundwork for college reading. Successful completion of Reading 3 with a C or better is required for progression to Intro to College Reading. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED.HSED (9.0-12.9).
Pre-requisites: (ASSET Reading Skills, 31 or COMPASS Reading Skills, 033 or ACT Reading, 10 or AccuPlacer Reading Comp, 034 or 858-762)
Complete Course Listing

Science (856)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

856-779 BSE Science 3 Pharmacology Preparation
Credits: 2

Designed for students entering the Associate Degree Nursing program. The course will be an introduction to pharmacology, one of the hardest courses taken by nursing students. In addition, students will develop other skills needed for success (and survival) in the nursing program, such as test taking strategies and writing papers in APA format. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

856-780 BSE Science 3, Science Review
Credits: 3

This course allows students to work on any area in science that they need to review to be successful in later course work or in their career. A variety of methods can be used to learn science, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students throughout their learning to achieve a predetermined goal.

Aid Code: 78 - ASE Remedial.
Complete Course Listing

856-781 BSE Science 3, Science Review
Credits: 3

This course allows students to work on any area in science that they need to review to be successful in later course work or in their career. A variety of methods can be used to learn science, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students throughout their learning to achieve a predetermined goal.

Aid Code: 77 - ASE Developmental.
Complete Course Listing

856-783 BSE Science 3, Non-Human Biology
Credits: 2

This course covers basic biological principles. Together with anatomy and physiology it is equivalent to a full-year of high school biology. The course will emphasize topics in microbiology and genetics. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

856-785 BSE Science 3, Anatomy and Physiology Preparation
Credits: 2

Prepares students for the college level courses of anatomy and physiology needed by nursing, physical therapy, and other health related programs. Competency objectives are based on the skills needed to be successful in future courses in anatomy and physiology. Basic concepts in anatomy and physiology are covered along with study skills to help students become "self-learners". *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing
856-787 BSE Science 3, Chemistry Preparation
Credits: 3
Designed for students entering particular vocational/technical programs that require basic knowledge of chemistry. Students learn basic chemical principles by listening to lectures, participating in class discussions and laboratory experiments. Equivalent to a full-year of high school chemistry.
*Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

856-796 Kinesiology Preparation
Credits: 2
Designed for students entering the Physical Therapy Assistant program. The course will be an introduction to kinesiology. Introduces basic principles in musculoskeletal anatomy, kinematics and the identification of joints and muscle attachments and actions. *Credit earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

Social Science (809)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

809-103 Think Critically and Creatively
Credits: 3
This course provides instruction in the vital, realistic and practical methods of thinking which are in high demand in all occupations of substance today. Decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is demonstrations, discussions, project and teamwork based. Assignments range from the short and simple to the detailed and complex. Reality and practicality are the focuses all through the course.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-143 Microeconomics
Credits: 3
This course examines the behavior of individual decision makers, primarily consumers and firms. Topics include choices of how much to consume and to produce, the functioning of perfectly and imperfectly competitive markets, the conditions under which markets may fail, and arguments for and against government intervention. The student applies the fundamental tools of economics to real world problems.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-144 Macroeconomics
Credits: 3
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.

Aid Code: 10 - Associate Degree.

Complete Course Listing

809-159 Abnormal Psychology
Credits: 3
The course in Abnormal Psychology surveys the essential features, possible causes, and assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Students will be introduced to the diagnosis system of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). In addition, the history of the psychology of abnormality will be traced. Cultural and social perspectives in understanding and responding to abnormal behavior will be explored as well as current topics and issues within abnormal psychology.

Aid Code: 10 - Associate Degree.

Pre-requisites: (809-198 or 809-199 or Test Waived-College Degree)

Complete Course Listing
809-166 Introduction to Ethics: Theory and Application
Credits: 3

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-172 Introduction to Diversity Studies
Credits: 3

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, and religion are explored.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-174 Social Problems
Credits: 3

Explores the causes of and possible solutions to selected social problems such as inequality, crime and deviance, and poverty. Students will examine the interrelationship of social problems and their roots in fundamental societal institutions.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (809-196 or Test Waived-College Degree)

Complete Course Listing

809-188 Developmental Psychology
Credits: 3

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-195 Economics
Credits: 3

This course is designed to give an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-196 Introduction to Sociology
Credits: 3

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.

**Aid Code:** 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-196 or 809-198 or 809-199)

Complete Course Listing
809-198 Introduction to Psychology
Credits: 3

This introductory course in psychology is 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.

Aid Code: 10 - Associate Degree.

Prerequisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or Accuplacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-199)
Complete Course Listing

809-199 Psychology of Human Relations
Credits: 3

Explores the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationships with others at work, in the family, and in society.
Aid Code: 10 - Associate Degree.

Prerequisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or Accuplacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-199)
Complete Course Listing

809-352
Credits: 2

This course seeks to ready the student for employment by discussing specific "human" skills that lead to success on the job. The topics presented may include: the importance of having a good attitude; the need to recognize that customers "buy" much more than a clearly defined product or service; and knowing how to treat customers, how to influence them, how to handle complaints, and how to sell. Students will also become aware of the need for self-organization, for innovation, for teamwork, and for effective management.
Aid Code: 31 - One-year Technical Diploma.

Prerequisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or Test Waived-College Degree or 838-104 or 838-104)
Complete Course Listing

Social Science (859)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

859-762 BSE Social Science 2 Review - Storefront
Credits: 3

This course allows students to work on any area in the social sciences that they need to review to be successful in later course work, on the GED tests, or in their career.
Aid Code: 74 - Interm ABE (6.0-8.9).
Complete Course Listing

859-773 BSE Social Science, Civics, HSED
Credits: 2

This course is an overview of the American government and how it impacts and influences the lives of American citizens. Areas of concentration are colonization, the constitution, branches of government, checks and balances, the Bill of Rights, state and local governments and citizen responsibility. Students who finish 30 hours of instruction in this course meet the citizenship requirement for the HSED certification.
Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

Supervision & Leadership Devlp (196)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

196-102 Employee Training and Development
Credits: 3

This course explains the fundamentals of training and development coordination. It includes terminology, levels of learning, matching training providers with organization needs, organizing materials and environments to maximize learning, measuring completion of objectives, and communication with employees. Students analyze local organizations to determine both training needs and the most appropriate training methodologies, in order to solve common business problems. Teams of students develop training plans, create a sample lesson plan, and present the lesson to the class.
Aid Code: 10 - Associate Degree.
Complete Course Listing

196-103 Employment Law
Credits: 3

Introduces and explores legal issues concerning employment and their effect on the workplace. Through in-depth case analyses, oral presentations, and debates, students learn about the intricacies of federal and Wisconsin equal employment opportunity laws. Topics include legislation and Supreme Court decisions related to civil rights, age discrimination, disabilities, pay equity, affirmative action, etc.
Aid Code: 10 - Associate Degree.
Complete Course Listing
196-108 Health, Safety and Security
Credits: 3

The importance of workplace safety for the worker, the employer and the community is emphasized. Students review the various safety and health issues affecting today's business organizations and work places. OSHA regulations play a key role in understanding compliance issues. Teams of students conduct research on a specific safety topic and conduct a safety presentation based on their research.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-109 Followership
Credits: 3

This course examines the multiple roles followers play in their relationship to leaders and the organization and explores the practices that promote positive followership, and the part that followers have in setting the standards and formulating organizational culture.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-110 Leadership and Change
Credits: 3

In today's face-paced world, simply managing change is insufficient. Successful change requires leadership. The emphasis of this course is the study and application of a comprehensive change framework that can be followed by organizational leaders at all levels. Topics include creating a vision for change, developing employees to implement change, the risk of change, eliminating barriers to change and sustaining the change.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-111 Project Management for Supervisors
Credits: 3

Learners will recognize the role of projects and the importance of project management in the current business environment. Learners will develop successful proposals, plan, schedule, and budget a project. Learner will use computer software to assist them in controlling the progress of the project. Learner will acknowledge firsthand the importance of people skills in managing a project.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-112 Applications of Technology
Credits: 3

This course focuses on the utilization of multimedia to design, develop, and deliver, effective presentations to the work environment. The role of a leader in the advocacy for technology innovation will be applied to various situations.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-113 Evolution of Management
Credits: 3

A comprehensive understanding of the origin and development of ideas in management is necessary to move the practice forward. This course traces the evolution of management thought from its earliest days to the present, by examining the backgrounds, ideas and influences of its major contributors within a historical context.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-114 Fundamentals of Budget Analysis
Credits: 3

The learner analyzes the fiscal components of a business by evaluating financial statements and annual reports that are relevant to the supervisor and decision-making. Each learner will evaluate and review ratios, trends, and develop a budget, and monitor the results. This course is a practical hands-on approach to interpreting accounting and financial reports as a non-accountant.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-115 Compensation and Benefits
Credits: 3

This course focuses on the compensation and benefit elements that make up total compensation. This course covers base pay, merit pay and variable pay programs and examines such benefits as government regulation, group welfare plans, pension plans and flexible benefit plans. Students learn to apply the principles of compensation management to maintain an organization's competitive advantage while complying with state and federal law. Topics include job analysis, descriptions, evaluation; pay and benefits surveys; budgeting as related to compensation; and comparable worth issues. The course promotes an understanding of mandated and discretionary employee benefits. It will focus on the major categories of benefits, including planning and administration, compliance with regulations, insurance, retirement plans, paid time off from work, accommodation and enhancement benefits. The students will participate in a variety of activities in which they will investigate current benefits programs, design or modify benefits programs to reflect today's work environment, and administer benefits thought simulations and role playing. As a major team project, students complete a simulation to design a complete compensation and benefits program.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-116 Staffing Organizations
Credits: 3

Learners will focus on recruitment, selection, orientation and hiring practices. This course examines what today's workforce expects and how to efficiently use the recruitment budget. All steps of the hiring process are reviewed. This material supplements the legal aspects of the employment process. Students develop the tools necessary for interviewing individuals in a variety of settings. Through hands on projects students practice their skills by completing probing, survey, recruitment, employment, and performance interviews.

Aid Code: 10 - Associate Degree.
Complete Course Listing
196-118 Human Resource Information Systems  
Credits: 3  
Learns will cover the fundamentals of human resource record-keeping. Topics include organizing records, federal and state retention requirements, documentation, employee access to records, privacy issues, and developing policies. Students learn to use the integrated human resource information components of a relational database (such as Access or PeopleAdmin) to perform human resource database tasks related to administration, performance management, compensation, recruitment, and more. In a series of exercise, students process the HR information related to groups of employees as these employees move through the application selection, promotion, retention and retirement phases of employment.

Aid Code: 10 - Associate Degree.  
Pre-requisites: 109-106  
Complete Course Listing

196-119 Labor and Employee Relations  
Credits: 3  
Students author contract proposals, negotiate changes to an existing labor agreement, and administer specific labor contract language. Through discussion and case analyses, students learn the legal requirements and restriction for labor and management. Topics include the legalities of union certification and decertification, negotiation and administration of labor agreements, strikes, lockouts, mediation, and arbitration. Enhances the ability to understand and develop employee-focused programs, policies and procedures such as company orientation, formal and informal communications, employee recognition programs and community relations, complaint investigation and resolution, and disciplinary procedures.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

196-128 Leadership Internship  
Credits: 3  
Students further develop their knowledge and skills by working with professionals to complete projects for area organizations. Evaluation of students’ work will be heavily influenced by the satisfaction expressed by representatives of the organizations served.

Aid Code: 10 - Associate Degree.  
Pre-requisites: Need Dean Approval  
Complete Course Listing

196-135 Leadership: Individual to Team  
Credits: 3  
This course focuses on how to build and lead successful teams to strengthen the overall performance of organizations. Team building models will be analyzed with emphasis on steps that can be taken to overcome common hurdles and build cohesive, high performing teams. An emphasis will be placed on the stages of team development, roles of the leader in developing successful work and project teams. Facilitation tools, problem-solving strategies, facilitation tools and conflict resolution techniques will be introduced during an in-class team simulation.

Aid Code: 10 - Associate Degree.  
Complete Course Listing

196-137 Payroll Administration  
Credits: 3  
This course provides you with a framework and the knowledge of administering a payroll system within the context of a business. An overview of interpreting financial statements and preparing budgets is included. The topics covered include the following: maintaining payroll records; salaried, hourly, commission, piecework, and contract workers; taxable benefits; statutory and other deductions; preparation of payroll journal entries; preparation of record of employment; preparation of W2s, W4s, and W2 Summary; workers’ compensation; employment standards; pay equity; computerized payroll using both a personal computer database and using an outside payroll service.

Aid Code: 10 - Associate Degree.  
Pre-requisites: 196-115  
Complete Course Listing

196-138 Human Resource Practicum  
Credits: 3  
Students further develop their HR knowledge and skills by working with HR professionals to complete human resource projects for area organizations. Teams of students are provided actual problems or projects from local organizations. Evaluation of student’s work will be heavily influenced by the satisfaction expressed by representatives of the organizations served.

Aid Code: 10 - Associate Degree.  
Pre-requisites: (196-102) and (196-115) and (196-116) and (196-193)  
Complete Course Listing

196-139 Introduction to Global Human Resource  
Credits: 3  
In this course, students will examine human capital in a global business environment. The topics cover major cultural difference in values and attitudes which may affect international HRM effectiveness, global staffing international compensation, employee relations, labor law, and encourage students to identify the future issues of international HRM of their organizations.

Aid Code: 10 - Associate Degree.  
Pre-requisites: 196-193  
Complete Course Listing

196-152 Talent Management  
Credits: 3  
This course focuses on improvement or correction of employee performance. Methods will be practiced concerning performance evaluation, coaching skills, career counseling, termination, facilitating change in work procedures and job design and managing the conflict that often results from change. Students will obtain a better understanding of how to clearly communicate performance expectations to an employee while maintaining dignity in the process.

Aid Code: 10 - Associate Degree.  
Complete Course Listing
196-168 Organizational Development
Credits: 3

This course introduces the Human Resources student to the different motivational mechanics that affect individuals, teams and organizations. Focus is placed on understanding individual differences and how they are manifested within an organization. Students will practice methods to improve communication and managing conflicts that occur at different levels within an organization.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-190 Leadership Development
Credits: 3

Designed to assist individuals to apply leadership skills effectively in any organizational structure. Emphasis is placed on leadership and employee involvement strategies. Focus is on the role of the supervisor in defining direction, aligning the organization, empowering people and teams, modeling trustworthiness, balancing the needs of all stakeholders, and optimizing the allocation resources.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-191 Supervisor as Leader
Credits: 3

As Organizations reduce management levels, the frontline supervisor will become a major component in effective delivery of products and services maximizing organizational results. This course is designed to help participants identify and develop personal leadership style and the skills necessary to effectively lead the work of others within the structure of an organization. Emphasis is placed on leading teams, communication and decision-making, managing conflict, supporting innovative thinking, influencing organizational culture, employee development, performance management and related topics that affect the leaders’ role in the organization.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-192 Managing For Quality
Credits: 3

Examines the role of the supervisor in assisting an organization to produce a quality product or service. The meaning and benefits of quality, the cost of quality systems, how to interact with customers, and data collection tools for continuous improvement will be explored.

Aid Code: 10 - Associate Degree.
Complete Course Listing

196-193 Human Resource Management
Credits: 3

Establishes a foundation for development of employee effectiveness by focusing on the supervisor’s role in understanding, communicating, and implementing organizational policies. Focus is placed on: employee hiring; orientation and training; performance management; motivating employees and related topics that affect the supervisor’s work group.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

699-122
Credits: 3

The course fulfills a course requirement in the Technical Studies (AAS Only) component of the Technical Communications program. This course provides practical experience working as a technical writer. Students will be assigned to work with, and learn from, an area employer. Specific tasks and focuses will be tailored to the interests of the student and the needs of area employers. Evaluation of the student’s performance will be a cooperative effort between the employer and the instructor.

Aid Code: 10 - Associate Degree.
Pre-requisites: (699-101) and (699-110) and (699-112) and (699-114) and (699-116)
Complete Course Listing

Welding (442)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

442-105 Pipe Welding - Gas Tungsten Arc Welding 1
Credits: 1

This class covers GTAW welding of 6” schedule 40 steel pipe. This will include welding open roots, fill and cover passes using the cup walking technique in a 1G position.

Aid Code: 10 - Associate Degree.
Complete Course Listing

442-107 Pipe Welding - Gas Tungsten Arc Welding 3
Credits: 1

This class covers GTAW welding of 6” schedule 40 steel pipe. This will include welding open roots, fill and cover passes using the cup walking technique in a 2G position.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (442-106)
Complete Course Listing

442-108 Pipe Welding - Gas Tungsten Arc Welding 4
Credits: 1

This class covers GTAW welding of 6” schedule 40 steel pipe. This will include welding open roots, fill and cover passes using the cup walking technique in a 2G position.

Aid Code: 10 - Associate Degree.
Complete Course Listing

Technical Communications (699)
442-307 Gas Metal Arc Welding (GMAW)
Credits: 5
This is an introductory course designed for students who desire to learn the theories and skills of welding. The theoretical principals learned in Welding Processes & Safety are put into practice. Students will learn to make sound welds with the Gas Metal Arc process (GMAW) on mild steel in all positions using short circuiting transfer mode. Students will also make sound welds in the Spray Transfer Mode on mild steel in the flat and horizontal positions. Industry standards and codes will be explored as visual and destructive testing of welded samples are carried out by students as an introduction to aspects of weld quality assurance and weld quality control. Health hazards and safety rules are discussed along with grinding, shearing, joint design and welding certification procedures.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: (804-306)
Complete Course Listing

442-308 Flux Cored Arc Welding (FCAW)
Credits: 5
This is an introductory course designed for students who desire to learn the theories and skills of welding. The theoretical principals learned in Welding Processes & Safety are put into practice. Students will learn to make sound welds with the Flux Cored Arc Welding process (FCAW) and Metal Cored Arc Welding Process (MCAW) on mild steel in all positions using short circuiting, spray and semi-spray transfer modes. Industry standards and codes will be explored as visual and destructive testing of welded samples are carried out by students as an introduction to aspects of weld quality assurance and weld quality control. Health hazards and safety rules are discussed along with grinding, shearing, joint design and welding certification procedures. Library research, written assignments and tests, and basic metallurgy and certification preparation are all units of instruction involved in the above areas.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: (804-306)
Complete Course Listing

442-310 Shielded Metal Arc Weld (SMAW)
Credits: 5
This is an introductory course designed for students who desire to learn the theories and skills of welding. The theoretical principals learned in Industrial Welding Procedures - Codes & Specifications are put into practice. Students will learn to make sound welds with the Shielded Metal Arc Welding Process (SMAW) on mild steel in all positions with non low hydrogen electrodes such as E6010, E6011, E6013, and E7014. Health hazards and safety rules are discussed along with metal weldability, electrode classification and weld inspection. Industry standards and codes will be explored as visual and destructive testing of welded samples are carried out by students as an introduction to aspects of weld quality assurance and weld quality control. Health hazards and safety rules are discussed along with grinding, shearing, joint design and welding certification procedures. Library research, written assignments and tests, and basic metallurgy and certification preparation are all units of instruction involved in the above areas.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: (804-306) and (801-311)
Complete Course Listing

442-312 Gas Tungsten Arc Weld (GTAW)
Credits: 5
This is an introductory course designed for students who desire to learn the theories and skills of welding. The theoretical principals learned in Industrial Welding Procedures - Codes & Specifications are put into practice. Students will learn to make sound welds with the Gas Tungsten Arc Welding Process (GTAW) on mild steel, stainless steel and aluminum alloys. Industry standards and codes will be explored as visual and destructive testing of welded samples are carried out by students as an introduction to aspects of weld quality assurance and weld quality control. Health hazards and safety rules are discussed along with weldability, tungsten electrode selection, shielded gasses, grinding, shearing, joint design and welding certification procedures. Library research, written assignments and tests, basic metallurgy and certification preparation are all units of instruction involved in the above areas.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: (804-306) and (801-311)
Complete Course Listing

442-315 Metal Fabrication-Structural
Credits: 3
This course is designed to include basic light and heavy duty structural steel fabrication skills. The class will link the student’s understanding of welding processes with real world fabrication techniques used in the industry today. The class will introduce a variety of skills needed to perform in today’s fast pace and highly skilled work force that will include, tools of the trade, measuring, cutting and bolting principals, layout and design, drilling, bending, shaping and actual construction of light and heavy duty structural steel projects. This class will also involve exposure to riveting, automated CNC cutting equipment, basic manufacturing principals, and promotion of teamwork and communication skills as learners. Students will design, layout, and fabricate real projects.

Aid Code: 31 - One-year Technical Diploma.
Restrictions: Restricted to students admitted to Welding Program.
Co-requisites: (442-307 or 442-308 or 442-310 or 442-312)
Complete Course Listing

442-316 Metal Fabrication-Sheet Metal
Credits: 3
This course is designed to introduce the basic skills involved in the sheet metal fabrication industry. The class will involve design and layout, tools of the trade, measuring and location techniques, forming and "shaping" of sheet metal. The class will involve specialty equipment used in the aviation industry, the custom auto and motorcycle industry, food industry and other specialty sheet metal industries. This class will also include exposure to fastener types, riveting, CNC cutting equipment, and promotion of teamwork and communication skills required in this highly skilled industry. Some of the specialty tools presented will include English wheels, Shot bag and mallets, shrinking and stretching equipment, bead rollers and hammer’s and dollies, the Pullmax machine and the techniques used with them. Students will design, layout and construct real sheet metal projects in groups and individually.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (442-307 or 442-308 or 442-310 or 442-312)
Complete Course Listing
442-317 Welding Shop Safety  
Credits: 1  

This course will familiarize students with all necessary national safety rules and regulations of the welding industry, in addition to personal protective equipment and machine operation.  
Aid Code: 31 - One-year Technical Diploma.  
Complete Course Listing  

442-318 Introduction to Welding  
Credits: 1  

The introduction to welding course will introduce students to the history of welding, basic metallurgy, weld defects and discontinuities, codes and standards and common welding processes and practices.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-317)  
Complete Course Listing  

442-320 Gas Metal Arc Welding 1  
Credits: 1  

This course examines Gas Metal Arc Welding (GMAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make welds in the flat position on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-343)  
Complete Course Listing  

442-321 Gas Metal Arc Welding 2  
Credits: 1  

This course examines Gas Metal Arc Welding (GMAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make welds in the horizontal position on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-320)  
Complete Course Listing  

442-322 Gas Metal Arc Welding 3  
Credits: 1  

This course examines Gas Metal Arc Welding (GMAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make welds in the vertical position on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-321)  
Complete Course Listing  

442-323 Gas Metal Arc Welding 4  
Credits: 1  

This course examines Gas Metal Arc Welding (GMAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make welds in the overhead position on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-322)  
Complete Course Listing  

442-324 Gas Metal Arc Welding 5  
Credits: 1  

This course examines Pulsed Gas Metal Arc Welding (GMAW-P) machine settings, theory, filler metals, safety protocol and welding process. Students will make welds in the flat position on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-323)  
Complete Course Listing  

442-325 Gas Metal Arc Welding 6  
Credits: 1  

This course examines Pulsed Gas Metal Arc Welding (GMAW-P) machine settings, theory, filler metals, safety protocol and welding process. Students will make welds in the horizontal and vertical positions on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-324)  
Complete Course Listing  

442-326 Gas Tungsten Arc Welding 1  
Credits: 1  

This course covers Gas Tungsten Arc Welding (GTAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make flat position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-343)  
Complete Course Listing  

442-327 Gas Tungsten Arc Welding 2  
Credits: 1  

This course covers Gas Tungsten Arc Welding (GTAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make horizontal position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-326)  
Complete Course Listing  

442-328 Gas Tungsten Arc Welding 3  
Credits: 1  

This course covers Gas Tungsten Arc Welding (GTAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make vertical position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-327)  
Complete Course Listing  

442-329 Gas Tungsten Arc Welding 4  
Credits: 1  

This course covers Gas Tungsten Arc Welding (GTAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make flat and horizontal position welds on aluminum.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-328)  
Complete Course Listing
442-330 Gas Tungsten Arc Welding 5  
Credits: 1  
This course covers Gas Tungsten Arc Welding (GTAW) machine settings, theory, filler metals, polarities, safety protocol and welding process. Students will make vertical position welds on aluminum.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-329)  
Complete Course Listing

442-331 Flux Cored Arc Welding 1  
Credits: 1  
This course examines the theory and practical operation of Flux Cored Arc Welding (FCAW). Safety protocols are reviewed and practiced. Proper machine settings and filler metals are used to produce flat position welds on carbon steel using Gas Shielded and Self Shielded FCAW.  
Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: (442-118)  
Complete Course Listing

442-332 Flux Cored Arc Welding 2  
Credits: 1  
This course examines the theory and practical operation of Flux Cored Arc Welding (FCAW). Safety protocols are reviewed and practiced. Proper machine settings and filler metals are used to produce horizontal position welds on carbon steel using Gas Shielded and Self Shielded FCAW.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-331)  
Complete Course Listing

442-333 Flux Cored Arc Welding 3  
Credits: 1  
This course examines the theory and practical operation of Flux Cored Arc Welding (FCAW). Safety protocols are reviewed and practiced. Proper machine settings and filler metals are used to produce vertical position welds on carbon steel using Gas Shielded and Self Shielded FCAW.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-332)  
Complete Course Listing

442-334 Flux Cored Arc Welding 4  
Credits: 1  
This course examines the theory and practical operation of Flux Cored Arc Welding (FCAW). Safety protocols are reviewed and practiced. Proper machine settings and filler metals are used to produce overhead position welds on carbon steel using Gas Shielded and Self Shielded FCAW.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-333)  
Complete Course Listing

442-335 Flux Cored Arc Welding 5  
Credits: 1  
This course applies the theory and operation of Flux Cored Arc Welding (FCAW) learned in prior courses through completion of projects. Safety protocols are reviewed and practiced.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-334)  
Complete Course Listing

442-336 Shielded Metal Arc Welding 1  
Credits: 1  
This course examines the theory and operation of Shielded Metal Arc Welding (SMAW). Safety protocols are reviewed and practiced. Proper machine settings and common filler metals are used to produce flat position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Pre-requisites: (442-318)  
Complete Course Listing

442-337 Shielded Metal Arc Welding 2  
Credits: 1  
This course examines the theory and operation of Shielded Metal Arc Welding (SMAW). Safety protocols are reviewed and practiced. Proper machine settings and common filler metals are used to produce horizontal position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-336)  
Complete Course Listing

442-338 Shielded Metal Arc Welding 3  
Credits: 1  
This course examines the theory and operation of Shielded Metal Arc Welding (SMAW). Safety protocols are reviewed and practiced. Proper machine settings and common filler metals are used to produce vertical position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-337)  
Complete Course Listing

442-339 Shielded Metal Arc Welding 4  
Credits: 1  
This course examines the theory and operation of Shielded Metal Arc Welding (SMAW). Safety protocols are reviewed and practiced. Proper machine settings and common filler metals are used to produce overhead position welds on carbon steel.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-338)  
Complete Course Listing

442-340 Shielded Metal Arc Welding 5  
Credits: 1  
This course applies the theory and operation of Shielded Metal Arc Welding (SMAW) learned in prior courses through completion of projects. Safety protocols are reviewed and practiced.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-339)  
Complete Course Listing

442-341 Welding Certification  
Credits: 1  
This course covers destructive and non-destructive testing methods and welding procedure creation and implementation as it relates to welding code work. Participants will write a procedure, fabricate, weld and test two pre-qualified specimens in accordance with a specified welding code.  
Aid Code: 31 - One-year Technical Diploma.  
Co-requisites: (442-325) and (442-330) and (442-335) and (442-340)  
Complete Course Listing
442-342 Advanced Welding Techniques
Credits: 1

Students construct various welding projects in accordance with the American Welding Society (AWS) SENCE program and EG2.0.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (442-341)
Complete Course Listing

442-343 Welding Blueprint Reading 1
Credits: 1

This course covers the fundamentals of Blueprint reading. Students examine and analyze types of drawings, orthographic projection, library of lines, title block dimensions and produce sketching projects.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (442-318)
Complete Course Listing

442-344 Welding Blueprint Reading 2
Credits: 1

This course covers blueprint reading specific to the welding industry. Students examine and define welding symbols and abbreviations used on welding specific blueprints.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (442-343)
Complete Course Listing

442-345 Structural Fab Welding 1
Credits: 1

This course covers the fundamentals of structural steel fabrication for the welding industry. Included in this course is safety, introduction to structural fabrication equipment and techniques.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (442-319)
Complete Course Listing

442-352
Credits: 1

Students will perform oxy-fuel cutting set up and operations, line burner operation, plasma cutting operations, carbon arc cutting and gouging and coupon preparations used for practice and testing.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (442-318)
Complete Course Listing

442-511 Print Reading, Math, Cutting & Inspection
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing

442-513 Advanced Fabrication and Layout with Soldering and Brazing
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing

442-515 Welding & Fabrication Troubleshooting
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing

442-522 Layout & Fabrication Basics with SMAW and GMAW Welding
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing

442-524 Metallurgy & FCAW and GTAW Welding
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing
442-526 Introduction to Automation, CNC and Lean Manufacturing
Credits: 2

The program configuration model for the Welder Fabricator apprenticeship related instruction provides xx semesters of coursework and the Transition-to-Trainer course in the last year. Courses listed here were developed by instructors and subject matter experts from industry. Each semester includes 72 hours of instruction (4 hours per week, or the equivalent, each term).

Aid Code: 50 - Apprentice.
Complete Course Listing

General Education

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Communication Skills (801)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

801-119
Credits: 3

This is a course designed for students who are interested in learning about music, radio, television, and film. However, the nature and scope of the course goes beyond mere media appreciation. The overall objective is to provide students with an understanding of the forms of Mass Communication and insure that the students learn how to communicate interpersonally about the films, television shows, and radio music that they see and hear. Main learning activities: movies, recorded music and television shows will be seen and heard regularly in class and discussed and critiqued formally outside of class.

Aid Code: 10 - Associate Degree.
Complete Course Listing

801-136 English Composition 1
Credits: 3

This course is designed for learners to develop knowledge and skills in all aspects of the writing process. Planning, organizing, writing, editing, and revising are applied through a variety of activities. Students will analyze audience and purpose, use elements of research, and format documents using standard guidelines. Individuals will develop critical reading skills through analysis of written documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-195 Written Communication
Credits: 3

Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments is designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 44 or COMPASS Writing Skills, 070 or ACT English, 18 or AccuPlacer Sentence Skills, 083 or Test Waived-College Degree or 831-103 or 831-103) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-196 Oral/Interpersonal Communication
Credits: 3

Focuses upon developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 44 or COMPASS Reading Skills, 070 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-197 Technical Reporting
Credits: 3

The student will prepare and present oral and written technical reports. Types of reports may include lab and field reports, proposals, technical letters and memos, technical research reports, and case studies. Designed as an advanced communication course for students who have completed at least the prerequisite introductory writing course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (801-195 or 801-136 or Test Waived-College Degree)
Complete Course Listing
801-198 Speech
Credits: 3

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.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

801-311 Communication
Credits: 2

This course reviews the grammar and writing skills that an adult learner needs to write clearly, concisely, and persuasively on the job. Students will produce a variety of job-related documents such as: business memos, letters, and short reports. The course will provide techniques that will improve the effectiveness with which learners communicate interpersonally, and within small groups. Students will learn to prepare and deliver oral presentations.

Aid Code: 31 - One-year Technical Diploma.

Pre-requisites: (ASSET Writing Skills, 38 or COMPASS Writing Skills, 038 or AccuPlacer Sentence Skills, 063 or ACT English, 15 or Test Waived-College Degree or 851-781 or 851-782 or 851-782 or 851-783 or 851-783)
Complete Course Listing

Elective (999)

999-888
Credits: 0

Aid Code: 10 - Associate Degree.
Complete Course Listing

999-900
Credits: 3

Complete Course Listing

999-902
Credits: 3

Complete Course Listing

999-997
Credits: 2

2 credit elective.
Aid Code: 10 - Associate Degree.
Complete Course Listing

999-998
Credits: 3

Complete Course Listing

999-999
Credits: 3

Aid Code: 10 - Associate Degree.
Complete Course Listing

Mathematics (804)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

804-107 College Mathematics
Credits: 3

This course 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. Topics include performing arithmetic operations and simplifying algebraic expressions, solving linear equations and inequalities in one variable, solving proportions and incorporating percent applications, manipulating formulas, solving and graphing systems of linear equations and inequalities in two variables, finding areas and volumes of geometric figures, applying similar and congruent triangles, converting measurements within and between U.S. and metric systems, applying Pythagorean Theorem, solving right and oblique triangles, calculating probabilities, organizing data and interpreting charts, calculating central and spread measures, and summarizing and analyzing data.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))
Complete Course Listing

804-110 Elementary Algebra with Applications
Credits: 3

This course offers traditional algebra topics with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include linear equations, exponents, polynomials, rational expressions, and roots and radicals. Successful completion of this course prepares learners to succeed in technical mathematics courses.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109)
Complete Course Listing
804-112
Credits: 3

This course is intended to introduce the individual to basic data collection, analysis and presentation techniques. The use of descriptive statistics as well as sampling, probability, and decision-making models will be covered. Data reliability will also be addressed. This course is intended as an introduction to basic statistics with an emphasis on current, real world applications.

Aid Code: 10 - Associate Degree.

Pre-requisites: ACT Math, 14

Complete Course Listing

804-113 College Technical Mathematics 1A
Credits: 3

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; and operations on polynomials. Emphasis will be on the applications of skills to technical problems. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-114 College Technical Mathematics 1B
Credits: 2

This course is a continuation of College Technical Mathematics 1A. Topics include: measurement systems; computational geometry; right and oblique triangle trigonometry; and trigonometric functions on the unit circle. Emphasis will be on the application of skills to technical problems. Successful completion of or concurrent enrollment in College Technical Mathematics 1A is required for course enrollment. Successful completion of College Technical Mathematics 1A and College Technical Mathematics 1B is the equivalent of College Technical Mathematics 1.

Aid Code: 10 - Associate Degree.

Pre-requisites: 804-113

Complete Course Listing

804-115 College Technical Mathematics 1
Credits: 5

Topics include: solving linear, quadratic, and rational equations; graphing; formula rearrangement; solving systems of equations; percent; proportions; measurement systems; computational geometry; right and oblique triangle trigonometry; trigonometric functions on the unit circle; and operations on polynomials. Emphasis will be on the application of skills to technical problems.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-118 Intermediate Algebra with Applications
Credits: 4

This course offers algebra content with applications. Topics include properties of real numbers, order of operations, algebraic solution for linear equations and inequalities, operations with polynomial and rational expressions, operations with rational exponents and radicals, algebra of inverse, logarithmic and exponential functions.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-123 Math with Business Applications
Credits: 3

This course covers...real numbers, basic operations, linear equations, proportions with one variable, percents, simple interest, compound interest, annuity, apply math concepts to the purchasing/buying process, apply math concepts to the selling process, and basic statistics with business/consumer applications.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 809-198 or 809-199 or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198) and (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109 or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))

Complete Course Listing

804-133 Math and Logic
Credits: 3

Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.

Aid Code: 10 - Associate Degree.

Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109 or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030)) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198)

Complete Course Listing
804-189 Introductory Statistics
Credits: 3

Students taking Introductory Statistics display data with graphs, describe distributions with numbers perform correlation and regression analyses, and design experiments. They use probability and distributions to make predictions, estimate parameters, and test hypotheses. They draw inferences about relationships including ANOVA.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Numerical Skills, 45 or Compass Algebra, 046 or ACT Math, 20 or 804-106 or 804-107 or 804-118 or 804-110 or 834-110 or (AccuPlacer Arithmetic, 089 and AccuPlacer Elem Algebra, 050))

Complete Course Listing

804-196 Trigonometry w Apps
Credits: 3

Topics include circular functions, graphing of trigonometry functions, identities, equations, trigonometric functions of angles, inverse functions, solutions of triangles complex numbers, DeMoivre’s Theorem, polar coordinates, and vectors.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Numerical Skills, 49 or Compass Algebra, 066 or ACT Math, 23 or 804-110)

Complete Course Listing

804-304 Mathematic Fundamentals
Credits: 2

This course consists of instructional units that incorporate hands on activities and projects. It is intended to give students a review of the basic principles of arithmetic, including whole numbers, fractions, and decimals. Estimation of length, angles and mathematical results is also covered. Additional topics include ratios, proportions, powers, analyzing graphs and an introduction to algebra. Proper calculator usage will be discussed throughout the course.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: (ASSET Numerical Skills, 35 or COMPASS Pre-Algebra Skills, 025 or ACT Math, 15 or AccuPlacer Arithmetic, 050 or Test Waived-College Degree or 854-781 or 854-781 or 854-781 or 854-782 or 854-782 or 854-783 or 854-783 or 854-784 or 854-784 or 854-785 or 854-785 or 854-786 or 854-786 or 854-787 or 854-787)

Complete Course Listing

804-308 Shop Mathematics II
Credits: 2

This course is a continuation of Shop Mathematics I and includes the study of the properties of circles, volumes and surface areas of various solids, an introduction to practical algebra and trigonometric principles used in solving right triangles as well as applications of the sine and cosine law in solving oblique triangles.

Aid Code: 31 - One-year Technical Diploma.
Pre-requisites: 804-306

Complete Course Listing

804-501
Credits: 1

Aid Code: 50 - Apprentice.
Complete Course Listing

Natural Science (806)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

806-108 Applied Anatomy and Physiology
Credits: 5

This course builds on a basic knowledge of skeletal, muscle and nervous systems and presents an in-depth study of their structure and functions. The integration of these systems to produce motion is studied. Critical thinking skills are encouraged as to analyze the relationships of these systems to normal movement, posture and gait. The development of observation and palpation skills is emphasized. Independent study of the pathophysiology of the major body systems is also included.

Aid Code: 10 - Associate Degree.
Restrictions: Restricted to students admitted to Physical Therapist Assistant Program.
Pre-requisites: (806-154 or 806-139 or 806-140) and (806-177 or 806-131 or 806-195)

Complete Course Listing

806-110 Forensic Science (Criminalistics)
Credits: 3

Forensic Science is a course designed to provide students of law enforcement with an appreciation of the capabilities and limitations of scientific analysis of crime scene evidence. All functions of a basic crime lab are discussed with emphasis on relating methods of analysis to the proper collection and packaging of evidence. Laboratory exercises are designed to expand upon and reinforce lecture material.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing
806-118 Metal Science
Credits: 3

This is a one-semester course in basic physics and metallurgy principles for the Technical College student. The course reviews accuracy and precision of measurements, introduces calculations with units and conversions within and between systems of measurements, formula rearranging, and applications in problem solving. Basic topics include properties of matter, metallurgy, material properties, material testing, force, motion (linear and circular), energy, power, and simple machines. The topics of heat, electricity, and magnetism are also introduced in the class. Emphasis is placed on the application of the laws and principles of physics to practical problems found in the machine shop and industry.

Aid Code: 10 - Associate Degree.

Pre-requisites: (804-308) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-196 or 801-196 or 801-198 or 804-133 or 806-110 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-112 Principles of Sustainability
Credits: 3

Prepares the student to develop sustainable literacy, analyze the interconnections among the physical and biological sciences and environmental systems, summarize the effects of sustainability on health and well-being, analyze connections among social, economic, and environmental systems, employ energy conservation strategies to reduce the use of fossil fuels, investigate alternative energy options, evaluate options to current waste disposal and recycling in the U.S., and analyze approaches used by your community to promote and implement sustainability.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-196 or 801-196 or 801-198 or 804-133 or 806-110 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-143 Survey Of Physics
Credits: 3

This course emphasizes understanding basic physics concepts through laboratory investigation and applications. Topics include kinematics, dynamics, work, energy, power, temperature, heat, waves, electricity, magnetism, electromagnetic waves, optics, and atomic and nuclear physics.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-196 or 801-196 or 801-198 or 804-133 or 806-110 or 806-118 or 806-134 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-134 General Chemistry
Credits: 4

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.

Aid Code: 10 - Associate Degree.

Pre-requisites: (COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or ASSET Numerical Skills, 40 or Test Waived-College Degree or 804-107 or 804-117 and (COMPASS Reading Skills, 073 or 804-123 or 804-133) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030)) or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-139 Survey Of Physics
Credits: 3

This course is designed to acquaint the students with basic concepts of physics and their applications. Topics covered include algebra (a review), trigonometry, physics to practical problems found in the machine shop and industry.

Aid Code: 10 - Associate Degree.

Pre-requisites: (804-308) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-196 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-140 Technical Science I
Credits: 3

This course is a continuation of Technical Science I with a study of heat, wave motion and sound, light and optics, and an introduction to electricity and magnetism. Sufficient mathematical treatment is given to the materials so the student can apply the principles in a quantitative manner. The laboratory work includes computer-aided study and the appropriate experiments to illustrate the application of the physical principles.

Aid Code: 10 - Associate Degree.

Pre-requisites: 806 151

Complete Course Listing
806-154 General Physics 1
Credits: 4

Presents the applications and theory of basic physics principles. This course emphasizes problem-solving, laboratory investigation, and applications. Topics include unit conversion and analysis, vectors, translational and rotational kinematics, translational and rotational dynamics, heat and temperature, and harmonic motion and waves.

Aid Code: 10 - Associate Degree.
Pre-requisites: (804-114 or 804-115) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-175 General Pathophysiology
Credits: 3

This introductory course in pathophysiology covers topics related to alterations of homoeostasis and the associate pathophysiological processes. The major emphasis will be on the physiological factors that underlie disease states. Course studies include the processes involved that generate illness; signs and symptoms of commonly occurring illness states and effects of disease processes on the cell. Review of normal homeostatic mechanisms is included. Study of the fundamental processes in relation to the pathophysiological processes can enable the students to apply this knowledge to clinical situations.

Aid Code: 10 - Associate Degree.
Pre-requisites: 806-179

Complete Course Listing

806-177 General Anatomy and Physiology
Credits: 4

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.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-194 or 806-199 or 809-103 or 809-143 or 809-166 or 809-172 or 809-195 or 809-199)

Complete Course Listing

806-179 Advanced Anatomy and Physiology
Credits: 4

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.

Aid Code: 10 - Associate Degree.
Pre-requisites: (806-195 or 806-177 or 806-131)

Complete Course Listing

806-186 Introduction to Biochemistry
Credits: 4

Provides students with skills and knowledge of organic and biological chemistry necessary for application within Nursing and other Allied Health careers. Emphasis is placed on recognizing the structure, physical properties and chemical reactions of organic molecules, body fluids, and acids. Additional emphasis is placed on biological functions and their relationships to enzymes, proteins, lipids, carbohydrates and DNA.

Aid Code: 10 - Associate Degree.
Pre-requisites: (Chemistry, 1.0 or 856-787 or 856-787 or 806-134) and (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-139 or 806-154 or 806-177 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-189 Basic Anatomy
Credits: 3

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

Aid Code: 10 - Associate Degree.

Complete Course Listing
806-194 Survey of Anatomy and Physiology
Credits: 3

This course is designed to provide a basic understanding of human anatomy, physiology, diseases, and terminology to assist with the transcription and coding of medical documents.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-197 Microbiology
Credits: 4

This course examines microbial structure, metabolism, genetics, growth and the relationship between humans and microorganisms. Disease production, epidemiology, host defense mechanisms and the medical impact of microbes in the environment, industry, and biotechnology are also addressed.

Aid Code: 10 - Associate Degree.
Pre-requisites: (806-177 or 806-195 or 806-196 or 806-179 or 806-199)

Complete Course Listing

806-199 General, Organic and Biological Chemistry
Credits: 4

A one semester course covering the fundamental aspects of inorganic and organic chemistry. Topics include lab safety, measurement, elementary problem solving, atomic structure, periodicity, chemical bonding, types of chemical reactions, properties of water, acid, bases, and salts, types of solutions and calculations of concentrations, gas laws, oxidation-reduction concepts, ionization, pH and buffers, hydrocarbons, types of organic compounds and functional groups, biochemical compounds including lipids, carbohydrates, proteins, and nucleic acids.

Aid Code: 10 - Associate Degree.
Pre-requisites: (COMPASS Reading Skills, 073 or ACT Reading, 16 or ASSET Reading Skills, 39 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

806-315 Applied Science
Credits: 2

This one semester course in basic physics principles reviews accuracy and precision of measurements and introduces calculations with units and conversions within and between systems of measurements. Formula rearranging and applications to problem solving are reviewed. Basic physics topics such as properties of matter, mechanical principles of force, motion (linear and circular), energy, power and machines, heat, electricity, and magnetism are also studied. Emphasis is placed on the applications of the laws and principles of physics to practical problems. The use of vectors is demonstrated in forces, velocities, and electrical transformers.

Aid Code: 31 - One-year Technical Diploma.
Co-requisites: (804-304 or 804-306)

Complete Course Listing

806-333
Credits: 2

This is a one-semester course in basic physics principles for aviation maintenance technicians. It includes a review of the units of measurement and conversions along with the properties of fluids. Mechanics (linear motion, equilibrium, energy, power, circular motion and machines), heat (temperature scales, specific heats and transfer), along with sound (wavelength, frequency, speed and intensity) are included. Special emphasis is given to problems applying these principles to the particular area of technology.


Complete Course Listing

Social Science (809)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

809-103 Think Critically and Creatively
Credits: 3

This course provides instruction in the vital, realistic and practical methods of thinking which are in high demand in all occupations of substance today. Decision making, problem solving, detailed analysis of ideas, troubleshooting, argumentation, persuasion, creativity, setting goals and objectives, and more are considered in depth as the student applies specific thinking strategies and tools to situations in a wide variety of workplace, personal, academic, and cultural situations. Classroom instruction is demonstrations, discussions, project and team work based. Assignments range from the short and simple to the detailed and complex. Reality and practicality are the focuses all through the course.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Skills, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing
809-143 Microeconomics
Credits: 3

This course examines the behavior of individual decision makers, primarily consumers and firms. Topics include choices of how much to consume and to produce, the functioning of perfectly and imperfectly competitive markets, the conditions under which markets may fail, and arguments for and against government intervention. The student applies the fundamental tools of economics to real world problems.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-196 or 809-198 or 809-199)
Complete Course Listing

809-144 Macroeconomics
Credits: 3

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.

Aid Code: 10 - Associate Degree.
Complete Course Listing

809-159 Abnormal Psychology
Credits: 3

The course in Abnormal Psychology surveys the essential features, possible causes, and assessment and treatment of the various types of abnormal behavior from the viewpoint of the major theoretical perspectives in the field of abnormal psychology. Students will be introduced to the diagnosis system of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). In addition, the history of the psychology of abnormality will be traced. Cultural and social perspectives in understanding and responding to abnormal behavior will be explored as well as current topics and issues within abnormal psychology.

Aid Code: 10 - Associate Degree.
Pre-requisites: (809-198 or 809-199 or Test Waived-College Degree)
Complete Course Listing

809-166 Introduction to Ethics: Theory and Application
Credits: 3

This course provides a basic understanding of the theoretical foundations of ethical thought. Diverse ethical perspectives will be used to analyze and compare relevant issues. Students will critically evaluate individual, social and/or professional standards of behavior, and apply a systematic decision-making process to these situations.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

809-172 Introduction to Diversity Studies
Credits: 3

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, and religion are explored.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-188 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)
Complete Course Listing

809-174 Social Problems
Credits: 3

Explores the causes of and possible solutions to selected social problems such as inequality, crime and deviance, and poverty. Students will examine the interrelationship of social problems and their roots in fundamental societal institutions.

Aid Code: 10 - Associate Degree.
Pre-requisites: (809-196 or Test Waived-College Degree)
Complete Course Listing
809-188 Developmental Psychology
Credits: 3

Developmental Psychology is the study of human development throughout the lifespan. This course explores developmental theory and research with an emphasis on the interactive nature of the biological, cognitive, and psychosocial changes that affect the individual from conception to death. Application activities and critical thinking skills will enable students to gain an increased knowledge and understanding of themselves and others.

Aid Code: 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-195 Economics
Credits: 3

This course is designed to give an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

Aid Code: 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-196 Introduction to Sociology
Credits: 3

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.

Aid Code: 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-195 or 809-143 or 809-196 or 809-198 or 809-199)

Complete Course Listing

809-198 Introduction to Psychology
Credits: 3

This introductory course in psychology is 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.

Aid Code: 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-143 or 809-196 or 809-199)

Complete Course Listing

809-199 Psychology of Human Relations
Credits: 3

Explores the relationship between the general principles of psychology and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding enables students to improve their relationships with others at work, in the family, and in society.

Aid Code: 10 - Associate Degree.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or AccuPlacer Reading Comp, 076 or Test Waived-College Degree or 838-104 or 838-104 or 801-195 or 801-136 or 801-196 or 801-198 or 804-133 or 806-110 or 806-112 or 806-118 or 806-134 or 806-139 or 806-154 or 806-177 or 806-186 or 806-194 or 806-199 or 809-103 or 809-166 or 809-172 or 809-188 or 809-195 or 809-196 or 809-198)

Complete Course Listing

809-352
Credits: 2

This course seeks to ready the student for employment by discussing specific "human" skills that lead to success on the job. The topics presented may include: the importance of having a good attitude; the need to recognize that customers "buy" much more than a clearly defined product or service; and knowing how to treat customers, how to influence them, how to handle complaints, and how to sell. Students will also become aware of the need for self-organization, for innovation, for teamwork, and for effective management.

Aid Code: 31 - One-year Technical Diploma.

**Pre-requisites:** (ASSET Reading Skills, 39 or COMPASS Reading Skills, 073 or ACT Reading, 16 or Test Waived-College Degree or 838-104 or 838-104)

Complete Course Listing

**Pre-College**

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
Academic Programs

For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

General College: Comm Skills (831)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Complete Course Listing

General College: College succes (835)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Complete Course Listing

General College: Reading (838)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

838-104 Introduction to College Reading
Credits: 2

Provides learners with opportunities to develop and expand reading skills including comprehension and vocabulary. Learners apply reading skills to academic tasks and read to acquire information from a variety of sources. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Reading Skills, 34 or COMPASS Reading Skills, 051 or ACT Reading, 12 or AccuPlacer Reading Comp, 055 or 858-790)
Complete Course Listing

838-103 Introduction to College Writing
Credits: 3

Introduces basic principles of composition, including organization, development, unity, and coherence in paragraphs and multi-paragraph documents. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Writing Skills, 38 or COMPASS Writing Skills, 038 or ACT English, 15 or AccuPlacer Sentence Skills, 063 or 851-781) and (AccuPlacer Reading Comp, 055 or COMPASS Reading Skills, 051 or ACT Reading, 12 or ASSET Reading Skills, 34 or 858-790)
Complete Course Listing

General College: Mathematics (834)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

834-109 Pre-Algebra
Credits: 3

Provides an introduction to algebra. Includes operations on real numbers, solving linear equations, percent and proportion, and an introduction to polynomials and statistics. Prepares students for elementary algebra and subsequent algebra related courses. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Numerical Skills, 35 or COMPASS Pre-Algebra Skills, 025 or ACT Math, 15 or AccuPlacer Arithmetic, 050 or 854-781)
Complete Course Listing

834-110 Elementary Algebra with Applications
Credits: 3

This course offers traditional algebra topics with applications. Learners develop algebraic problem solving techniques needed for technical problem solving and for more advanced algebraic studies. Topics include linear equations, exponents, polynomials, rational expressions, and roots and radicals. Successful completion of this course prepares learners to succeed in technical mathematics courses.

Aid Code: 10 - Associate Degree.
Pre-requisites: (ASSET Numerical Skills, 40 or COMPASS Pre-Algebra Skills, 044 or ACT Math, 17 or Test Waived-College Degree or 834-109 or 834-109) or (AccuPlacer Arithmetic, 089 or (AccuPlacer Arithmetic, 065 and AccuPlacer Elem Algebra, 030))
Complete Course Listing

General Studies (890)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Mathematics (854)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).
Science (856)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Basic Skills Education
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

Career Education (862)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

862-764 BSE Employability Skills/Career Decision 2
Credits: 3
Develops general information involved with career choices including self-concept, values, needs and abilities. Occupational information and expansion of vocational choices are included. Outside speakers are invited to share information. Hands on experience includes filling out forms, interviews and study of resumes.
Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful. Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

Computer Basics (860)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

860-764 Computer Basics
Credits: 3
This course covers elementary computer skills such as file management; document formatting, creating and management; using the Internet; basic e-mail and information management.
Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful. Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

English (851)
Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

851-713 BSE Communications I
Credits: 3
Introductory course includes basics of punctuation, spelling, capitalization as needed for written expression in everyday situations. Basic sentence and paragraph construction will be included.
Aid Code: 73 - Beg ABE (0-5.9).
Complete Course Listing

851-755 BSE Communication Skills Workplace Learning Center
Credits: 2
Participants in this course will learn how to increase their reading comprehension; use punctuation, spelling and capitalization rules as needed for written expression in everyday situations; write complete sentences and paragraphs; and demonstrate the ability to use listening and speaking skills. Participants will also learn problem solving, critical thinking and conflict resolution skills using work related materials when appropriate. Emphasis will be placed on skill enhancement that is immediately transferable to professional or personal use by the participants. Course work may also be used in preparation for the GED test.
Aid Code: 77 - ASE Developmental.
Complete Course Listing

851-762 Communication 2
Credits: 3
This course develops conventions of English structure, usage, mechanics and spelling in order to write and expand ideas. It includes practice in writing, correcting, and revising. The focus will be on expression of ideas through e-mails, business letters, and paragraphs. Successful completion of Communication 2 is required for progression to Communication 3.
*Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*
Aid Code: 74 - Intern ABE (6.0-8.9).
Pre-requisites: (COMPASS Writing Skills, 001 or AccuPlacer Sentence Skills, 030 or ACT English, 01)
Complete Course Listing

851-763 BSE Writing for Accuplacer
Credits: 2
This course will provide instruction in writing skills needed to be successful on the Accuplacer writing test.
Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing
This course develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting and revising for the GED test at the pre-GED level.

*Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 74 - Interm ABE (6.0-8.9).
Complete Course Listing

**851-771 BSE Communication 3, GED**

Credits: 3

A continuation of Communications 2. Expansion of English structure, usage and mechanics with emphasis on writing skills needed for the essay component of the GED Writing Skills test.

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

**851-772 Communication 3 GED Review**

Credits: 3

This course further develops conventions of English structure, usage, mechanics, and spelling in order to write and expand ideas. It includes practice in writing, correcting, and revising for the Reasoning Through Language Arts GED test. This course may also develop communication skills as needed for the Mathematical Reasoning, Social Studies, and Science GED tests.

*Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

**851-780 BSE Communication 3, Review**

Credits: 3

This course allows the students to work on any area in writing that they need to review to be successful in later course work or in their career. A variety of methods can be used in reviewing writing skills, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students through their learning to achieve a predetermined goal.

**Aid Code:** 78 - ASE Remedial.
Complete Course Listing

**851-781 Communication 3**

Credits: 2

This course will include the basic points and refinement of grammar, spelling and the writing of paragraphs and essays. Successful completion of Communication 3 with a C or better is required for progression to Intro to College Writing.

*Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).

**Pre-requisites:** (ASSET Writing Skills, 35 or COMPASS Writing Skills, 025 or ACT English, 12 or AccuPlacer Sentence Skills, 046 or 851-762)
Complete Course Listing

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**851-793**

Credits: 2

This course helps students improve both basic reading skills and critical thinking skills. Specific skills covered include: recognizing words in context, recalling facts, keeping events in order, making inferences and understanding main ideas.

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

* A **TBA Class** is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.

Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

### English Language Learners (861)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

**861-701 English as a Second Language, Advanced Communication**

Credits: 3

Learners will discriminate common stress patterns, reductions, intonation, pitch patterns, and thought groups. Learners will utilize rules of grammar to form affirmative and negative statements and questions using simple, continuous, perfect and perfect continuous tenses. The use of conditional sentences and active/passive voice will be explored. Learners will be expected to use sustained speech to participate in discussions about unfamiliar topics, share experiential stories, and present oral reports of various types.

**Aid Code:** 75 - ESL W/Instrl Area 861.
Complete Course Listing

**861-702**

Credits: 1

This 36-hour course will assist English Language Learners (ELL) in bridging the gap between ELL program completion and readiness for success in a postsecondary program. Students will develop basic computer and academic skills, as well as identify and explore career interests. Students must have instructor recommendation to enroll.

**Aid Code:** 75 - ESL W/Instrl Area 861.
Complete Course Listing

**861-704 English as a Second Language, Advanced Mathematics**

Credits: 3

This course focuses on the application of skills to solve word problems. Learners will apply concepts of whole numbers, fractions, decimals, percents, proportion, algebra, and geometry to solve multiple step word problems.

**Aid Code:** 75 - ESL W/Instrl Area 861.
Complete Course Listing
**861-705 English as a Second Language, Advanced**  
**Credits:** 3

Learners in this course will analyze the systems in the world of work in the U.S. including chain of command, steps to filing a grievance, resolution of discriminatory practices, insurance options, and networking. All learners will develop resumes and practice writing cover letters as well as participate in mock interviews. Career options will be explored using a variety of materials and techniques.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-708 English as a Second Language, Advanced Reading**  
**Credits:** 3

Learners will demonstrate comprehension of a variety of written work including short stories, consumer warnings, software instructions, newspapers, magazines, and college catalogues. Activities include identification of main idea and details, making inferences, identification of author’s bias, and the identification of characters, setting, and plot. The writing process will be used to construct multiple-paragraph compositions. Learners will use reference tools including the dictionary, thesaurus, atlas, encyclopedia, software and the Internet.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-711 English as a Second Language, Beginning Literacy, Communication**  
**Credits:** 3

Instruction and practice in the use of formal and informal conversational language. Students build vocabulary and learn to use numbers, emergency and health language, identify types of jobs and classroom objects. Basic pronunciation, speaking, and listening strategies are developed. Basic grammar and writing skills are introduced and practiced. Programs are infused with and enhanced by technology.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-714 English as a Second Language, Beginning Literacy, Mathematics**  
**Credits:** 3

Develops language and skills needed for beginning math. Topics include number concepts, mathematical language and whole numbers. This level introduces fractions, decimals, measurements and geometric shapes. Students develop critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-715 English as a Second Language, Beginning Literacy**  
**Credits:** 3

Students develop basic language skills in the area of speaking, listening, reading and writing in the context of real-life survival skills. It is aimed at developing the listening comprehension and oral skills of beginning level learners of English. Students at this level function minimally, if at all, in English.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-718 English as a Second Language, Beginning Literacy, Reading**  
**Credits:** 3

Instruction to teach discrimination and correct orientation of the English alphabet, to introduce symbol/sound relationships, and the meaning of common signs and symbols. Students learn to recognize personal information print, use maps, calendars, and picture dictionaries. Students also begin to develop basic comprehension strategies at this level.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-731 English as a Second Language, Low Beginning, Communication**  
**Credits:** 3

Instruction to improve basic communication skills including: speaking, listening, pronunciation, writing, and grammar. Students learn to write and speak using simple past, present and future verb forms, generate simple affirmative and negative statements and questions, discriminate sounds, and respond to simple imperatives. Computer technology will assist students.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-734 English as a Second Language, Low Beginning, Mathematics**  
**Credits:** 3

Reviews ESL Beginning Math content and develops language and skills needed for Beginning/Intermediate Math. Concepts covered include fractions, decimals, measurements, mathematical language, percents, ratios and proportions. This level introduces basic algebra and geometry concepts. Students will use critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-735 English as a Second Language, Low Beginning**  
**Credits:** 3

Classes at this level provide relevant language in real-life contexts. This class uses an experience centered approach to give student survival skills as quickly as possible. This program provides plenty of opportunity to use language, while developing grammatical skills. Students at this level will begin to form simple sentences and be able to communicate with others. Students learn about standard social norms in the United States, the work ethic in the Unites States, and how to apply basic study skills.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing

**861-738 English as a Second Language, Low Beginning, Reading**  
**Credits:** 3

Instruction to improve basic reading skills and expand vocabulary. Students learn to comprehend and respond to a range of printed material, employ a variety of comprehension strategies, recognize formal and informal language, and develop fluency.  
**Aid Code:** 75 · ESL W/Instrl Area 861.  
Complete Course Listing
861-751 English as a Second Language, High Beginning, Communication
Credits: 3

Instruction to improve speaking, listening, pronunciation, writing, and grammar skills. Students learn to use the writing process to compose short paragraphs and workplace reports, develop an awareness of language patterns, utilize rules of grammar, use formal and informal conversational language and respond to multi-step process directions. Computer technology is used to enhance the learning experience. Students will learn to use word processing tools.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-754 English as a Second Language, High Beginning, Math
Credits: 3

This course introduces basic concepts and language skills needed in algebra and geometry such as signed numbers, powers and roots, algebraic expressions, equations, rectangular coordinates, polynomials, angles, triangles, and plane and solid figures. This course allows the student to work on areas in math that they need to be successful in later course work or in their career.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-755 English as a Second Language, High Beginning
Credits: 3

Students learn about school services and how to access them. They will participate in formal and informal conversations about legal and basic human rights. Students learn to write cover letters, resumes, and to complete job applications. Development of study skills is stressed, and students will learn to apply learning and test taking skills and strategies and actively participate in the learning process.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-758 English as a Second Language, High Beginning Reading
Credits: 3

Instruction to improve reading skills and expand vocabulary. Students improve comprehension skills and learn to respond critically to a range of printed material. Employability vocabulary and the use of workplace terminology are expanded. Students develop greater fluency and increase their reading rate.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-771 English as a Second Language, Low Intermediate Communication
Credits: 3

Learners will identify sounds of English, use basic pronunciation strategies, and discriminate speech. Formal and informal conversational language skills will be developed through participation in a variety of activities. Learners will use sustained speech to give short explanations, descriptions, and process directions.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-774 English as a Second Language, Low Intermediate Mathematics
Credits: 3

Learners will use critical thinking skills to solve problems using fractions, decimals, percents, and proportions. Basic algebra and geometry concepts will be introduced.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-775 English as a Second Language, Low Intermediate
Credits: 3

Learners will use pre-employment resources such as classified ads, employment agencies, web sites and the Rock County Job Center to complete a variety of assignments and tasks. Employer expectations such as punctuality, attitude, team work, and appreciation for diversity will be discussed. Learners will participate in activities to prepare for interviews.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-778 English as a Second Language, Low Intermediate Reading
Credits: 3

Learners will demonstrate comprehension of a range of printed materials including road signs, safety signs, newspaper articles, rhythm chants, short narratives, and fairy tales. Comprehension strategies studies will include recognition of compound words, homonyms, prefixes, and suffixes. Learners will demonstrate an awareness of a variety of language patterns and utilize rules of grammar to form statements and questions in simple and continuous tenses.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-791 English as a Second Language, High Intermediate Communication
Credits: 3

Learners will discriminate speech, display active listening skills, and increase survival language. Formal and informal conversational language will be practiced. Learners will be expected to use sustained speech to generate two-person dialogues about familiar topics and share experiential stories. There will be instruction and practice using a variety of grammatical structures including the perfect tenses and tag questions.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-794 English as a Second Language, High Intermediate Mathematics
Credits: 3

Learners will be introduced to basic concepts and language skills needed in algebra and geometry such as signed numbers, equations, rectangular coordinates, polynomials, angles, triangles, and plane and solid figures.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing
861-795 English as a Second Language, High Intermediate
Credits: 3

Learners will identify the raise-promotion process, discuss the purpose of personnel files, discuss employer expectations, and identify discriminatory practices. Interview etiquette will be discussed and practiced. Activities will lead to greater understanding of American cultural practices such as volunteerism, competitiveness, parenting, and neighborhood interaction.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

861-798 English as a Second Language, High Intermediate Reading
Credits: 3

Learners will analyze a variety of printed material and identify main ideas, supporting details, predict outcomes, make inferences, and draw conclusions. Sources will include textbooks, newspapers, magazines, school notices, schedules, nutrition labels, and consumer instructions. Learners will use the writing process to compose organized paragraphs.

Aid Code: 75 - ESL W/Instrl Area 861.
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.
Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

Health Education (857)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

857-771 BSE Health, HSED
Credits: 2

Overview of general health practices needed for healthy adult and family living. Allows students seeking a Wisconsin state HSED to meet the requirements of that diploma.

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

857-780 BSE Health
Credits: 2

This course teaches the basics of health for the individual, family, and community. Mental and emotional health will be discussed as well as first aid, substance abuse, consumer health, environmental health, and death and dying.

Aid Code: 78 - ASE Remedial.
Complete Course Listing

857-781 BSE Health
Credits: 1

This course teaches the basics of health for the individual, family, and community. Mental and emotional health will be discussed as well as first aid, substance abuse, consumer health, environmental health, and death and dying. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.
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Mathematics (854)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

854-713 BSE Mathematics 1
Credits: 3

Develops number concepts, mathematical language and whole number topics. This level introduces fractions, decimals, measurements and geometric shapes. Students use critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations.

Aid Code: 73 - Beg ABE (0-5.9).
Complete Course Listing

854-755 BSE Mathematics for Workplace Learning Center
Credits: 2

Participants in this course will learn how to effectively use the basic concepts of whole numbers, fractions and decimals as they apply to either professional or personal use. The course will also provide specific preparation in the areas of algebra and geometry that could be used in vocational/technical programs or employment. Instruction will also be available for site specific math needs (example: pre-S.P.C. training or metric conversion). Participants will also learn problem solving skills using work related materials when appropriate. Course work may also be used in preparation for the GED test.

Aid Code: 77 - ASE Developmental.
Complete Course Listing
This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. This level may introduce basic algebra and geometry concepts. Students use critical thinking skills to problem solve, perform computations, estimate results, interpret and develop data, work with appropriate technology and apply mathematics to real-world situations. Successful completion of Math 2 is required for progression to Math 3. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 74 - Interm ABE (6.0-8.9).

**Pre-requisites:** (COMPASS Pre-Algebra Skills, 001 or AccuPlacer Arithmetic, 020 or ACT Math, 01)

Complete Course Listing

### 854-763 BSE Mathematics for Accuplacer

**Credits:** 2

This course will provide instruction in math skills needed to be successful on the ACCUPLACER math test.

**Aid Code:** 74 - Interm ABE (6.0-8.9).

Complete Course Listing

### 854-764 Math 2 GED Review

**Credits:** 3

This course develops math skills needed for the Mathematical Reasoning GED test at the pre-GED level. This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. This level may introduce basic algebra and geometry concepts. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 74 - Interm ABE (6.0-8.9).

Complete Course Listing

### 854-765 BSE Certified Nursing Assistant Mathematics

**Credits:** 2

This course will provide instruction in math skills needed to be successful in the Certified Nursing Assistant Program.

**Aid Code:** 74 - Interm ABE (6.0-8.9).

Complete Course Listing

### 854-766 BSE Mathematics, GED

**Credits:** 3

Introduction to algebra and geometry. A continuation of BSE, Math 2. Provides more advanced, higher level thinking and problem solving skills needed for the GED test.

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).

Complete Course Listing

### 854-772 Math 3 GED Review

**Credits:** 3

This course reviews whole numbers and develops fractions, decimals, measurements, mathematical language, percents, ratios, and proportions. It includes an introduction to algebra and geometry and provides more higher level thinking and problem solving skills needed for the Mathematical Reasoning GED test. It may also develop math skills needed for the Social Studies and Science GED tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

**Aid Code:** 76 - HS Dip,GED,HSED (9.0-12.9).

Complete Course Listing

### 854-776 BSE Mathematics 3, Pharmacology Mathematics

**Credits:** 1

Designed for students entering the Associate Degree Nursing program, specifically preparing for the Pharmacology Math Test that the ADN students take during Fundamentals. Topics will include decimals, fractions, metric measurements, and calculating the amount of medication to be administered. This course does NOT satisfy the Program Ready requirement for the ADN program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 77 - ASE Developmental.

Complete Course Listing

### 854-777 BSE Mathematics 3, Radiography Mathematics

**Credits:** 2

Designed for students entering the Radiography program. Topics will include decimals, fractions, percents, metric measurements, conversions, significant figures, scientific notation, working with formulas, and solving for the unknown. Special emphasis will be placed on problems related to the field of radiography. This course does satisfy the Program Ready requirement for the Radiography Program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 77 - ASE Developmental.

Complete Course Listing

### 854-778 BSE Mathematics 3, Nursing Mathematics

**Credits:** 2

Designed for students entering the Associate Degree Nursing program. Topics will include decimals, fractions, percents, metric measurements, conversions, concentrations, significant figures, scientific notation, working with formulas, and solving for the unknown. Special emphasis will be placed on preparing for the math tests required by the ADN program. This course does NOT satisfy the Program Ready requirement for the ADN program. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

**Aid Code:** 77 - ASE Developmental.

Complete Course Listing
854-781 Math 3
Credits: 2

This course will include a review of whole numbers, fractions, ratios, proportions, and percents. It will also focus on English and metric conversions, applied geometry, basic statistics, and graph reading. Finally, students will develop their signed number skills as well as learn how to solve equations after an introduction to basic algebraic concepts. Successful completion of Math 3 with a C or better is required for progression to Pre-Algebra. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Pre-requisites: (ASSET Numerical Skills, 26 or COMPASS Pre-Algebra Skills, 018 or ACT Math, 13 or AccuPlacer Arithmetic, 030 or 854-762).

Complete Course Listing

854-785 BSE Mathematics 3, Allied Health Math
Credits: 2

Designed for students entering a program in the health occupations that would benefit from an introduction to algebra. Provides problem-solving skills needed for drug calculations and courses in physics and chemistry. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

854-788 BSE Mathematics 3, Modu Math Algebra
Credits: 3

This computer program uses practical video segments geared toward improving basic math skills. Students get the essential instruction, including drill and practice, required for complete mastery of basic operations involving whole numbers, fractions, decimals, percents, and signed numbers. The introductory algebra course covers basic concepts; order of operations; adding, subtracting and multiplying laws; problem solving; inequalities; graphing; factoring; quadratics and more. Students may use this for the Electrical Apprenticeship, AND, Radiography, Dental Hygiene, and PTA algebra requirements.

Aid Code: 78 - ASE Remedial.
Complete Course Listing

854-789 BSE Mathematics 3, Modu Math Algebra
Credits: 3

This computer program uses practical video segments geared toward improving basic math skills. Students get the essential instruction, including drill and practice, required for complete mastery of basic operations involving whole numbers, fractions, decimals, percents, and signed numbers. The introductory algebra course covers basic concepts; order of operations; adding, subtracting and multiplying laws; problem solving; inequalities; graphing; factoring; quadratics and more. Students may use this for the Electrical Apprenticeship, AND, Radiography, Dental Hygiene, and PTA algebra requirements. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.
Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

Reading (858)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

858-713 BSE Reading 1
Credits: 3

Introduces basic reading skills needed by adults for everyday living. The students expand their vocabulary by learning to recognize and pronounce words. Emphasis is placed on understanding the material read, including books, computer software and newspaper articles. A variety of instructional approaches will be used.

Aid Code: 73 - Beg ABE (0-5.9).
Complete Course Listing

858-762 Reading 2
Credits: 3

This course will include dictionary use, vocabulary in context, main ideas, supporting details, inferences and vocabulary building. Successful completion of Reading 2 is required for progression to Reading 3. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 74 - Intern ABE (6.0-8.9).
Pre-requisites: (COMPASS Reading Skills, 001 or AccuPlacer Reading Comp, 020 or ACT Reading, 01)

Complete Course Listing

858-763 BSE Reading for Accuplacer
Credits: 2

This course will provide instruction in reading skills needed to be successful on the Accuplacer reading test.

Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing

858-764 Reading 2 GED Review
Credits: 3

The course focuses on reading in the GED content areas. It includes skills of comprehension, application, and analysis as needed for the GED content area tests at the pre-GED level. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 74 - Intern ABE (6.0-8.9).
Complete Course Listing
858-771 Reading 3 GED Review
Credits: 3

This course further develops reading in the GED content areas. It includes continued work in comprehension, application and analysis as needed for the GED content area tests. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Complete Course Listing

858-790 Reading 3
Credits: 2

This course focuses on word analysis strategies, building vocabulary and comprehending at an inferential and critical level. The purpose is to establish the groundwork for college reading. Successful completion of Reading 3 with a C or better is required for progression to Intro to College Reading. *Credits earned in this course will not be counted toward the number of credits needed for any degree. This course is not eligible for financial aid, and the credits do not count in enrollment status for financial aid eligibility.*

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).
Pre-requisites: (ASSET Reading Skills, 31 or COMPASS Reading Skills, 033 or ACT Reading, 10 or AccuPlacer Reading Comp, 034 or 858-762)
Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful. Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

858-787 BSE Science 3, Chemistry Preparation
Credits: 2

Designed for students entering the Associate Degree Nursing program. The course will be an introduction to pharmacology, one of the hardest courses taken by nursing students. In addition, students will develop other skills needed for success (and survival) in the nursing program, such as test taking strategies and writing papers in APA format. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

858-785 BSE Science 3, Anatomy and Physiology Preparation
Credits: 2

Prepares students for the college level courses of anatomy and physiology needed by nursing, physical therapy, and other health related programs. Competency objectives are based on the skills needed to be successful in future courses in anatomy and physiology. Basic concepts in anatomy and physiology are covered along with study skills to help students become "self-learners". *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

858-783 BSE Science 3, Non-Human Biology
Credits: 2

This course covers basic biological principles. Together with anatomy and physiology it is equivalent to a full-year of high school biology. The course will emphasize topics in microbiology and genetics. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

858-780 BSE Science 3, Science Review
Credits: 3

This course allows students to work on any area in science that they need to review to be successful in later course work or in their career. A variety of methods can be used to learn science, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students throughout their learning to achieve a predetermined goal.

Aid Code: 78 - ASE Remedial.
Complete Course Listing

858-781 BSE Science 3, Science Review
Credits: 3

This course allows students to work on any area in science that they need to review to be successful in later course work or in their career. A variety of methods can be used to learn science, including workbooks, work sheets, computer software and video tapes. An instructor will be available to guide students throughout their learning to achieve a predetermined goal.

Aid Code: 77 - ASE Developmental.
Complete Course Listing

Science (856)

Information provided includes course descriptions by subject only.
For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

856-779 BSE Science 3 Pharmacology Preparation
Credits: 2

Designed for students entering the Associate Degree Nursing program. The course will be an introduction to pharmacology, one of the hardest courses taken by nursing students. In addition, students will develop other skills needed for success (and survival) in the nursing program, such as test taking strategies and writing papers in APA format. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing

856-787 BSE Science 3, Chemistry Preparation
Credits: 3

Designed for students entering particular vocational/technical programs that require basic knowledge of chemistry. Students learn basic chemical principles by listening to lectures, participating in class discussions and laboratory experiments. Equivalent to a full-year of high school chemistry. *Credits earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.
Complete Course Listing
856-796 Kinesiology Preparation

Credits: 2

Designed for students entering the Physical Therapy Assistant program. The course will be an introduction to kinesiology. Introduces basic principles in musculoskeletal anatomy, kinematics and the identification of joints and muscle attachments and actions. *Credit earned in this course will not be counted toward the number of credits needed for any degree.*

Aid Code: 77 - ASE Developmental.

Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.

Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.

Social Science (859)

Information provided includes course descriptions by subject only. For complete 2018-2019 programs/academic plans, please refer to Academic Programs (p. 31).

859-762 BSE Social Science 2 Review - Storefront

Credits: 3

This course allows students to work on any area in the social sciences that they need to review to be successful in later course work, on the GED tests, or in their career.

Aid Code: 74 - Interm ABE (6.0-8.9).

Complete Course Listing

859-773 BSE Social Science, Civics, HSED

Credits: 2

This course is an overview of the American government and how it impacts and influences the lives of American citizens. Areas of concentration are colonization, the constitution, branches of government, checks and balances, the Bill of Rights, state and local governments and citizen responsibility. Students who finish 30 hours of instruction in this course meet the citizenship requirement for the HSED certification.

Aid Code: 76 - HS Dip,GED,HSED (9.0-12.9).

Complete Course Listing

* A TBA Class is an individualized class that meets in the indicated Learning Lab during Lab hours. The hours are flexible, and students work at their own pace. These classes require approximately 4-6 hours per week in the Learning Lab to be successful.

Please stop by Room 2216, or call 608-757-7676, if you have any questions, or would like to set up a schedule.
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