

Blackhawk Technical College

2014-15
CATALOG

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College Overview

The Blackhawk Technical College Central Campus is located midway between the cities of Beloit and Janesville on over 80 acres of partially wooded rolling prairie. BTC offers over 50 programs leading toward an associate degrees, technical diplomas, certificates or apprenticeships. While the majority of classes are held at the Central Campus, classes are also offered at the Center for Transportation Studies located north of Janesville, the Beloit Center located in the Eclipse Center on Riverside Drive, the Advanced Manufacturing Training Center in Milton and at the Monroe Campus. BTC also maintains classrooms at the Rock County Job Center in Janesville.

Modern, up-to-date facilities serve approximately 9,000 students annually. There are about 4,200 credit and 5,000 non-credit students each year in areas such as advanced manufacturing, agriculture, business, culinary arts, information technology, laboratory science, marketing and continuing education programs.

Bus service is available to Blackhawk Technical College from both Janesville and Beloit. The Central Campus is the main transfer point between the two cities. BTC also has its own bus shuttle system that transports students between campuses. Course listings are available online at www.blackhawk.edu

About this Publication

Since BTC continually evaluates program offerings and course content, information contained in this catalog should be interpreted only as an overview. Current curriculum sheets on all of BTC's degree-granting programs are available at the counseling office.

General education, technical education, vocational education and related courses for apprentices are occupational entry offerings. Acceptance of transfer courses for credit is strictly a function of the receiving institution.

BTC reserves the right to cancel any tentatively scheduled class and also to combine class sections due to insufficient enrollment. In the event of class cancellation by BTC, refunds will be issued. Information regarding BTC's refund policy for individual class drops is available from the Registration Office.

Course descriptions in this catalog are only summaries of the actual course content. Blackhawk Technical College reserves the right to make changes in courses or regulations published in this catalog without obligation or prior notice.

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 is now 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.

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 www.blackhawk.edu

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) 758-6900.

Sources of Funding

The postsecondary and adult vocational education programs at BTC anticipate receiving federal funding in 2014-15. These federal funds represent approximately six percent of the total projected operational costs for postsecondary and adult vocational education programs at BTC.

Blackhawk Technical College Foundation

The Blackhawk Technical College Foundation, Inc. is a non-profit organization created to support the objectives of BTC. It is a convenient means for individuals and groups to make tax-exempt/deductible contributions for the support of the objectives of the college, and it provides a source of funds that may be used for purposes that cannot be supported by public funds, or that might be more appropriately financed from voluntary contributions. One of the Foundation's major activities is supporting BTC students with scholarship opportunities. There are many ways to support the Foundation through monetary and non-monetary gifts. Contact the Foundation and Alumni Association, at (608)758-6900 for more information.

Our Mission and Purposes

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.

Our Guiding Principles

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.

Our Philosophy

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. As a result, the development and maintenance of instructional offerings and related services focus upon maximizing the accessibility of these offerings to all students.

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 work force. 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 Objectives

Establish Blackhawk Technical College as a Key Economic Driver in Our Region: We want Blackhawk Technical College to be a key draw for business and industry thinking of relocating to our area. We want Blackhawk Technical College to be a primary catalyst for business and industry expansion in our area. We want to be recognized as the primary provider of highly trained and skilled workers in our area. Blackhawk will be a key player in all economic development efforts in both Rock and Green Counties.

Increase Student Recruitment, Retention and Success: We want our retention rates to improve. We want high course completion rates, high graduation rates and a consistently high percentage of our students finding life-supporting jobs in their field of study.

Our intention is to open up as many avenues to our learning opportunities as possible. We want to reach more people in our district, both traditional and nontraditional. We want to reduce barriers for our current and future students.

Foster a Diverse and Inclusive Environment: Our aim is to create an environment of inclusiveness, where students and employees are a mix of age, race, gender, religion, physical abilities, sexual orientation and socioeconomic status reflective of the workplace, this district and country. We want all to feel valued and welcome. We seek to be a culturally competent organization.

Enhance Organizational Effectiveness and Engagement: We want greater input into decision making and a more inclusive governance structure. We want to improve our systems and processes to be as efficient and effective as possible. We want increased communication, flowing vertically and horizontally, both internally and externally.

Develop New Resources: We need to develop new sources of funding to support the College. We want to grow the Foundation, increase the number of grants and grow our partnerships with business and industry, and put into place systems that will allow us to do this on a continuing basis.

BTC-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. Core abilities are skills and competencies that will enable students to be successful in the workforce. These essential skills are taught across programs and departments so that

each Blackhawk Technical College student can expect to work toward improving and applying these critical soft skills and core abilities regardless of their program of choice.

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.

BTC-Core Abilities

- Seek information when necessary to effectively interact with others.
- Adapt to diverse situations.
- Demonstrate respect and common courtesies.

Solve Problems Efficiently

- Identify a problem to be solved.
- Select appropriate problem-solving methodologies.
- Recognize and gather relevant information.
- Apply mathematical reasoning.
- Utilize appropriate resources.
- Recognize when to change direction if needed.
- Recognize when the process is complete.

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.

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

College Accreditation

Blackhawk Technical College is accredited by the Higher Learning Commission (HLC), 230 South LaSalle St., Chicago, IL. Accreditation is vital because the accrediting body gives its approval to an institution of learning via an official review board after the school has met specific requirements. This approval determines the College's eligibility to receive state and federal monies, such as grants for programs and financial aid for students. In December 2005, BTC was accepted as a participant in the Academic Quality Improvement Program (AQIP) by the HLC. Participating in AQIP involves continuous collaboration among BTC administration, faculty, staff, students, employers and the HLC. Bringing this new accreditation process to campus has proven to be both challenging and rewarding.

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

All programs offered by Blackhawk Technical College have also been approved by the Wisconsin Technical College System Board. The school is accredited to offer associate degrees, one and two-year technical diploma program, and certificates, as well as apprenticeship programs. Programs offered by the college are approved by the State of Wisconsin Educational Approval Board for training veterans.

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 at 15 Plumb St., Milton. The latest BTC campus opened in August 2014 and currently houses the Welding, Computer Numerical Control and Industrial Mechanic classes that are part of the Advanced Manufacturing and Transportation program. The second phase of construction is scheduled to be completed for the start of the 2015-16 school year. 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 Friday, and includes a student lounge, student lockers, meeting rooms as well as classroom space. Call (608) 758-6900 for further information.

Beloit Center

The Beloit Center is conveniently located in the recently renovated Eclipse Center in downtown Beloit, 50 Eclipse Center, Beloit, WI 53511-6270. The Academic Support Division provides basic education and GED/HSED instruction, pre-college courses, and classes for English Language

College Facilities (cont.)

Learners. Students can complete Phlebotomy, Pharmacy Technician and Licensed Practical Nursing programs at the Center. Additional courses are offered through Health Sciences, the Business Division, Protective Services, General Education, and Business and Community Development. Contact the Beloit Learning Center at (608) 757-7741.

Center for Transportation Studies

This 30,000 square-foot facility houses two large shops for the Diesel and Heavy Equipment Technician and Automotive Technician programs. It features three classrooms, a library, a microcomputer lab and a student lounge. Apprenticeship classes are held at the center, as well as Automotive, Diesel and Horticulture classes. Many non-credit offerings in computer applications and other areas of interest are available. The Center is located about a quarter-mile west of the intersection of Highways 14 and 51, north of Janesville, at 1740 Hwy. 14 West. Parking is available with access off Hwy. 14. Contact the Center for Transportation Studies at (608) 743-4471.

Central Campus

Blackhawk Technical College Central Campus is located midway between Beloit and Janesville. Situated on over 80 acres of partially wooded prairie, the campus is home for most of BTC's programs and services. The campus is easily accessible from Prairie Road (County Hwy. G) and Hwy. 51.

This comprehensive technical college facility comprises over 200,000 square feet and houses the majority of program offerings with instructional classrooms, shops 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 aids, 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. 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 53566-1033. 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 nursing,

nursing assistant, phlebotomy and science labs, and general classrooms. The Campus offers a selection of full associate degrees, one-year diplomas and short-term certificates, as well as all general education core courses. A learning center offers GED/HSED, and pre-college courses and GED/HSED testing services. A large selection of continuing education courses covering a broad range of topics are offered each year at the Campus. A full-time counselor provides students with academic advising, support and career planning assistance. BTC staff work with local businesses and industries to provide cutting edge training for Green County employees. Small class size and a personalized learning environment ensure the success of Monroe Campus students. Contact the Monroe Campus at (608) 328-1660.

Orientation

Group orientation sessions are conducted prior to the beginning of each semester. These sessions will acquaint students with the physical and social environment of BTC, including procedures, regulations, opportunities and resources to facilitate student adjustment. Students are strongly encouraged to attend.

Entrance Requirements

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 high school graduation or GED/HSED.

How to Apply

If you want to enroll in a program, follow this process:

- Complete all sections of the application form which is available at the BTC website or in a paper format.
- Please print clearly.
- Consult the catalog for specific program information and other details.

Application Fee

- Attach the \$30 nonrefundable application fee to the form mailed to the college. Send a check or money order made out to the college. If completing the electronic application, print the "Signature Page" at the end of the application, sign it and submit it along with the fee.
- The \$30 fee is a onetime only fee.
- If you apply to more than one WTCS college, you must attach a \$30 application fee to each application form.
- Do not send cash.

How to Apply (cont.)

- 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 of the college(s) to which you are applying. 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 will be evaluated for credit transfer after you have been admitted to the college. This process may take up to 6 weeks.

Current, admitted students are provided priority registration before other students. You will receive notification on the exact process. Newly admitted students are scheduled to register after current students and will receive notification on the process during New Student Orientation as well as a mailing regarding registration dates. Registering for classes can be done online or in person. You are encouraged to register using Banner Web (online system) as course availability is first come, first served.

Testing/Assessment

- BTC requires testing for acceptance into the college. Test results are generally used to place you in courses and/or programs where you can succeed academically.
- If you have taken the ACT or SAT, please send your score report to the college.

All steps must be completed to be accepted into BTC.

To expedite the application process, it is recommended that you submit all of the above documentation together. Applications are handled on a first-come, first-serve basis. We cannot guarantee admission to the college for applications received and/or completed less than one month prior to the start of the semester.

Applications received after noon on the Friday prior to the start of a term will not be processed for that term; they will be processed for the next available term.

Timely completion of all admission and registration requirements is also critical for those applying for financial aid.

Assessment

All associate degree and technical diploma programs at Blackhawk Technical College require pre-entry assessment. Most pre-entry assessments are advisory but a number of programs and/or courses have mandatory cut-off scores.

In most cases, students entering Blackhawk Technical College will take the COMPASS assessment. The COMPASS is an untimed assessment taken on a computer that assesses reading, language and numerical skills. There is a \$10 fee for this assessment. Accommodations are available for students with disabilities in compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Amendment Act (ADAAA). You need to complete the COMPASS assessment unless you have graduated from a four-year college or university, earned an Associate Degree or completed the ACT. (Some health programs have specific requirements for admission. See program information for details.) Accommodations for the COMPASS test is available in the Student Resource Learning Center by calling (608) 757-7796, deaf/hh Relay 711.

COMPASS Retest Policy

Students complete an admission/placement test as part of the application process to the college. These scores are utilized to determine appropriate course placement. Retesting is appropriate if students believe their scores do not accurately reflect their abilities and skill levels.

Retest eligibility:

- After reviewing the admission test scores, students may retest in each area ONCE utilizing COMPASS prior to enrolling in the designated course(s).
- Students who have completed COMPASS as part of the admission process MUST wait 48 hours after their first COMPASS exam before retesting.
- Once the semester has begun and students are enrolled in courses appropriate to their placement scores, they will no longer be eligible to retest and must progress through all designated course levels.

Educational Agreements

A joint educational agreement exists between Rock Valley College, Rockford, IL. and BTC. This agreement expands the programs available to BTC District residents. A list of approved programs is available at the Student Services office. The College website has a complete list of approved programs.

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

Youth Apprenticeship (cont.)

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

Blackhawk Technical College and high schools in Rock and Green Counties provide opportunities for high school students to earn college credit. Articulation connects high schools with certificate, diploma and associate degree programs at BTC. Students save time and money by taking college-level course work and getting a head start on college. High school students can earn Blackhawk Technical College credits by completing high school courses which have been approved for either advanced standing or transcribed credit. Students must meet the minimum requirements outlined for each articulation agreement. The goal of articulation is to provide a smooth transition from high school to postsecondary education without the duplication of coursework. Students are advised to check with their high school counselor or the BTC Articulation Specialist at (608) 757-6341 for articulation opportunities in their high school.

International Students

Blackhawk Technical College is authorized to issue I-20s for students attending under F-1 visas. However, enrollment of foreign students in the education programs at BTC will be based on space availability. BTC is not authorized to issue I-20s to students for study of the English language or for programs considered high demand. International students are not considered Wisconsin residents and are required to pay out-of-state tuition. Requirements for admission include:

- Application to a credit program and application fee.
- TOEFL score of 500 (paper version), 173 (computer version) or 61 (Internet-based version) or better.
- Satisfactory placement test - COMPASS 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 of a 4.0 scale).

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

Tuition and Fee Payment

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: 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.
5. **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. A limited number of waivers may be granted. Paperwork for waivers is available in Student Services.

Financial Aid Information

For more details and the most current information please refer to the Blackhawk Technical College (BTC) website at www.blackhawk.edu/financialaid.aspx. It is also important to check your BTC student email account often.

Types of Financial Assistance

There are four basic types of financial aid available for Blackhawk Technical College students:

- Grants
- Part-time employment
- Scholarships
- Loans

The type of financial aid provided will differ for each student because the aid package is designed specifically for your individual needs and circumstances. A single type of financial aid rarely meets all educational expenses. Therefore, financial assistance generally must come in the form of a combination of financial aid.

Applying for Financial Aid

Applying for financial aid should be completed months before the start of the academic year by submitting a FAFSA (Free Application for Federal Student Aid) online at www.fafsa.gov. BTC has a priority deadline for applying and some types of aid are awarded quickly and may not be available if you submit your application late. Deadlines may be viewed on our website at: www.blackhawk.edu/financialaid.aspx

For information and assistance on how to apply for Financial Aid, you may go to: www.blackhawk.edu/financialaid.aspx or call the Financial Aid Office at (608) 757-7664 or toll free at (800) 498-1282 ext. 7664. (Financial aid assistance is also available at the Monroe Campus.)

Federal Assistance

(For current information and details on the federal aid programs go to www.studentaid.ed.gov)

Pell Grant

The Pell Grant is determined from the FAFSA application and does not have to be repaid. Assistance is given on the basis of need. Pell Grants may be available to students attending less than half time.

Supplemental Education Opportunity Grant (SEOG)

The SEOG program is available to students if they are enrolled in at least 6 credit hours and have financial need. The SEOG is awarded to the students determined to have the most need. Individuals must qualify for a Pell Grant to be eligible. Assistance ranges from \$200 to \$400 per year. Funds are limited.

Federal Work Study Program

Work study is based upon financial need and half time (six credits) enrollment. If eligible, a student may work a maximum of 20 hours per week on campus. Funds for Work Study will be paid directly to the student based on the number of hours they have worked. Job performance is a criterion for continuation. Summer work study may be available for those who qualify.

Federal Direct Stafford Loans

Direct Loans are low-interest loans for students to help pay for the cost of a student's education after high school. The lender is the US Department of Education. Students must be enrolled half time (six credits) to qualify. For information on how to apply for a Federal Direct loan at Blackhawk Technical College, please refer to our website at www.blackhawk.edu/financialaid.aspx

NOTE: First time borrowers are required by federal regulations to complete entrance loan counseling and sign a master promissory note (MPN). For more information please go to www.blackhawk.edu/financialaid.aspx and click on Student Loan under "How to Apply for Financial Assistance."

Students may be eligible for a subsidized and/or unsubsidized Direct Loans. A subsidized loan is based on need, whereas unsubsidized loans are not based on need. The PLUS Loan is a type of loan that provides additional funds for educational expenses and is mainly available to parents of dependent students.

State of Wisconsin Assistance

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

Wisconsin Higher Education Grants (WHEG)

The WHEG program can provide a grant to supplement the Pell grant program. To qualify, the person must be a Wisconsin resident for at least one year and have financial need. 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. Application is made through the BTC Office of Multicultural Affairs and the Financial Aid Office on campus.

Talent Incentive Program (TIP)

A state grant used to supplement the WHEG Program, TIP is targeted for educationally disadvantaged, first-year Wisconsin resident BTC students.

Indian Student Assistance Grant

These grants are available to students who are at least 25 percent Native American and show financial need. Application is made through your FAFSA and the Indian Student Assistance Grant application which is available through the HEAB website.

Hearing and Visually Handicapped Student Grant

Provides funding for undergraduate WI residents who show need and have a severe or profound hearing or visual impairment.

Private Scholarships

Many private scholarships are available to BTC students. Information may be obtained through the BTC Financial Aid website, www.blackhawk.edu/financialaid.aspx or www.fastweb.com

Other Grants or Scholarships

There are a number of other grants and scholarships available through the Blackhawk Technical College Foundation, Inc., www.blackhawk.edu/Alumni/BTCFoundation.aspx and the Blackhawk Association for Career and Technical Education (BACTE). 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.

For the latest about Veteran education benefits through the Federal Department of Veteran Affairs (i.e. Montgomery GI Bill, Post 9/11 Bill) go to 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 the Rock County

Veteran Service office at (608) 757-5552 or the 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.

Students' Rights and Responsibilities

For a complete list of your Rights and Responsibilities, please go to: www.blackhawk.edu/financialaid.aspx under General Information, click on Students' Rights and Responsibilities.

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 all costs to the college, a refund will be issued to you. For dates of refunds please go to www.blackhawk.edu/financialaid.aspx and click on Financial Aid Calendar.

Book Charge Information

Information regarding the use of excess financial aid to charge your books in the BTC bookstore is available on the BTC website.

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 before completing 60% of the semester, you may have to return some Federal Aid that you received. Failure to attend classes may require you to repay

Federal Assistance (cont.)

100% of all the aid you received for the classes you did not attend. Please contact the Financial Aid Office for a copy of the Title IV Refund Policy or view the policy online at www.blackhawk.edu/financialaid.aspx

Satisfactory Academic Progress

Students receiving financial aid must make Satisfactory Academic Progress (SAP) toward the completion of course requirements in an approved for aid certificate or degree. To view the SAP policy for Blackhawk Technical College, please go to www.blackhawk.edu/financialaid.aspx and under the General Information heading, and click on Satisfactory Academic Progress (SAP).

www.blackhawk.edu www.studentaid.ed.gov www.fafsa.gov
www.pin.ed.gov www.finaid.org

Attendance

Attendance is critical to student academic progress at Blackhawk Technical College. Attendance expectations may differ from course to course; however, you are expected to be present, prepared, and an active participant in your classes throughout the entire course. You should discuss absences with your instructors. The attendance policy for a particular course will be shared in class and/or will be included on the course syllabus.

Non-Attendance (No Show) Policy

Blackhawk Technical College has implemented the following Non-Attendance policy:

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. The instructor for the course will report non-attendance and you will be notified of your removal from the course via your BTC Student email account. At this point, you will no longer be considered registered in that course and cannot start attending unless you receive written approval from the Dean and re-register.

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. The instructor for the course will report non-attendance and you will be notified of your removal from the course via your BTC Student email account. At this point you will no longer be considered registered in that course and cannot start attending unless you receive written approval from the Dean and re-register.

If you have been removed from classes due to your non-attendance, you will not receive a grade for those courses.

This process does not refund a student's account (see Refund Policy). It is the responsibility of the student to follow-up with Registration and to request (in writing) appropriate refunds—see Refund Policy (based on the date of the request, not the date of removal from the course).

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

Auditing Classes

You may audit a credit class with the consent of the appropriate Dean. If a student repeats a course, it must be for credit and all course objectives must be met. A decision to audit must be made at the time of registration. A student taking a class for audit may not change to credit, nor may the student change from credit to audit after the class begins. You can register to audit a course one week prior to the start of each semester.

When you audit a class, you are expected to 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 you elect to audit, you will pay all of the regular tuition and fees. However, no credit will be granted for the course. Your transcript will show an "AU" as a grade. Tuition will be waived for senior citizens who are 60 years old and older. However, all other fees will be charged.

Transfer and Work Experience Credit

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. In all cases, final determinations of credits earned are reached by the appropriate division Dean.

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.

1. Transfer Credits (Credit for Prior Learning) must be supported by official transcripts (in closed original envelopes and bearing the school seal). Transfer of credits can be evaluated from regionally accredited, post-secondary institutions (where a C or better was earned) and under certain circumstances, high school institutions (high school courses for which advanced standing was granted and a grade of B or better was earned). The College initiates this process upon your acceptance to the College. This process may take up to 8-weeks to complete. Once this process is

Transfer and Work Experience Credit (cont.)

complete, your BTC transcripts will reflect grades of "TR" for all approved coursework. If you feel that specific coursework was not evaluated for transferability, it is your responsibility to provide the Registration Office course descriptions from the appropriate college catalog along with a copy of the catalog's cover. Once this information is received, the course(s) will be reviewed by the appropriate Division Dean. You will be notified of credits granted by email sent to your BTC Student email account;

2. Experiential Learning--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 counselor or advisor;
3. Credit by Exam--when students have advanced high school courses, or other undocumented or unaccredited experiences, BTC offers them the opportunity to receive credit by examination. You must register for and schedule the exam with the appropriate Division within the first week of the class for an 8-week or accelerated class and the first two weeks for a full semester class. It is your responsibility to initiate this process with your counselor/advisor;
4. Earned Associate, Bachelor or Master's Degree from a regionally accredited institution--immediate transfer of four general education classes (totaling twelve credits) and two courses of electives (totaling six credits). Other courses can be reviewed individually.

If you register for a course which the College later grants credit, you may choose to drop/withdraw from the course. You will be held responsible for all appropriate fees incurred.

Distance Learning

BTC provides courses in alternative delivery formats. 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. Hybrid: 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. Live Interactive Video (ITV): Courses may be offered over the compressed video system. As an example the instructor and part of the class may be at Central campus and the rest of the class may be at the Monroe campus watching, hearing, and responding over the compressed video system. Accelerated (ACCEL): These courses cover the total course curriculum in fewer weeks. The courses are very intense since all work must be covered in a shorter period of time. Students should expect to spend a similar amount of total time on these courses as semester long courses.

Grading Procedures

Your 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 2.0 GPA is needed to maintain satisfactory academic standing and is required for graduation. Grade point averages (GPA) 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.

Pre-Requisites/Co-Requisites

Certain classes may require that you 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. A grade of C or higher is required for a pre-requisite. Some classes have more stringent regulations and students should be aware of these requirements by discussing it with their academic advisors or instructors.

Should you fail to obtain a C or higher in a pre-requisite course, you will be administratively dropped from the course. An email will be sent to your BTC student email account regarding this change. Charges on your account for this/these course(s) will be reduced to zero.

Registering for Classes

Registering is the process of enrolling for specific classes. You must be registered for all classes that you attend. Registration is necessary in order for your official record to properly reflect your 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 your responsibility to keep informed of all registration requirements and procedures. By registering for courses, you accept responsibility of all fees. Non-attendance does not constitute a cancellation of that obligation, nor does it officially withdraw you from the class.

Continuing students will register for the next semester's classes before new students. This gives students the first opportunity to enroll in the courses needed to complete program requirements. A registration schedule will be available to you providing specific procedures to be followed, including the date and time of registration, estimated cost, and other applicable information. It is recommended that students register on-line by going to www.blackhawk.edu and choose "Banner Web."

Registering for Classes (cont.)

Online Registration

You may register if you have been previously enrolled (within the last 185 days) or are currently enrolled and have a student identification number and personal identification number (PIN). Visit the BTC web site, at www.blackhawk.edu. At the top of the web page select Online Services and then select Banner Web. Enter your log on info with PIN and follow the instructions to register. You will be asked for additional security information the first time that you log in to your account.

A Note to New Students

New students must apply for admission at BTC in order to set up an account to register online. Once your account set up is completed, you will need your student ID number and PIN to activate your online account. This information, along with other important computer service materials, was included with your 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-Wednesday: 8:00 a.m. to 6:30 p.m.*

Thursday-Friday: 8:00 a.m. to 4:30 p.m.*

**Summer hours vary.*

At the **Monroe Campus**, you may register in person during the hours listed below:

Monday-Thursday: 8:00 a.m. to 6:00 p.m.*

Friday: 8:00 a.m. to 4:30 p.m.*

Registration by Mail

Complete the website registration form at 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 your 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 your completed registration form along with a MasterCard, Visa or Discover card information. In order for BTC to bill your employer, a letter of authorization for billing must be faxed with your registration form.

Adding a Course

If you choose to add courses, you can do so up 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. You can add courses through the Web (until the semester starts) or by completing a Course Change form and submitting it to Express Services. . If you add a course, all additional tuition and fees must be paid at that time or a payment plan must be established.

Should you chose, during the first week of the course, to switch sections of the same course, of either full-semester or 8- week courses, you would need written approval from the appropriate Division Dean. In most instances, if you make this change during the first week, you would not incur additional fee charges for changing sections of the same course.

If you are receiving financial aid, be aware that adding a course may affect your financial aid. If an agency or program is helping support your educational expenses, you may be required to have your schedule change approved by the agency or program staff

Dropping a Course

It is your responsibility to notify the College if you intend to drop a course. You may drop a course through the Web (before the first day of the semester) or by completing a Course Change form at Express Services. When dropping a course, you 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 to you within two weeks.

Dropping a course may affect your status in your program. Depending on the circumstance(s) for the drop, you are strongly encouraged to discuss your concerns with your instructor, appropriate dean, advisor/counselor and/or the Financial Aid Office. If you are receiving financial aid, be aware that dropping a course may affect your financial aid. If an agency or program is helping support your educational expenses, you may be required to have your schedule change approved by the agency or program staff.

Not attending a class does not constitute an official drop. You will be responsible for all course fees not paid. If you do not officially drop, you will receive a grade of "F" for the course(s). You may not drop a course if 20 percent or less of the class remains. In the case of extenuating circumstances, you may obtain written permission from the appropriate Dean. You may not drop a course if an academic misconduct issue is pending.

You may be administratively dropped from a course for which you have not met the course requirements (i.e. pre-requisites, co-requisites etc.)

How to Register (cont.)

Refund Policy

You may have a portion of your tuition and fees refunded if you drop or withdraw from a course. Refunds will be issued in accordance with the following state guidelines:

100% Refund

If you drop any course before the first class meeting you are scheduled to attend, 100% of your fees shall be refunded--Excluding non-refundable fees.

If you drop a course before or at the time 10% of the course's potential hours of instruction have been completed, and add another course on the same day, you will receive a 100% credit 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 your 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 your transcript.)

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

Exceptions to this policy may be made in the case of death, extended illness, or other extenuating circumstances. You must submit an Exception to the Refund form which may be obtained at Student Services. The completed form, including your documentation of extenuating circumstances may be returned to Student Services.

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.

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 counselor or contact the admissions office at the UW System institution or private college of your choice.

Wisconsin Caregiver Background Check

As of October 1, 1998, Wisconsin law requires Caregiver Background Check for education and employment in most hospitals, long-term care facilities, home health agencies, schools, clinics and childcare centers. Students accepted into programs with off-campus clinical/externship requirements must complete a background information form disclosing any pending criminal cases and criminal convictions before entry into the program. Programs with Wisconsin Caregiver Background check requirements include:

- Certified Nursing Assistant (CNA)
- Dental Assistant
- Diagnostic Medical Sonography & Vascular Technology
- Early Childhood Education
- EMT
- Medical Assistant
- Nursing (ADN)
- Pharmacy Technician
- Phlebotomy
- Physical Therapist Assistant (PTA)
- Radiography

Students with any criminal history are placed in the clinical/externship setting at the discretion of the clinical agency. In cases of severe criminal background, the student may be denied placement by law. Consequently, should the student have any criminal background, Blackhawk Technical College cannot guarantee clinical/externship placement or normal graduation time.

Please contact a counselor to discuss your situation if you have concerns about your background.

Student Support Services

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 advising and retention specialist 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 counseling. Program Advisors assist with program information, course scheduling and assistance in identifying campus resources.

On the Central Campus, advising and retention staff is located in the Student Services office. Advising and retention services are available on a walk-in basis, but it is highly recommended that you schedule an appointment. (A full-Advising services are available at the outreach centers and in the evenings on a limited schedule. For more information about advising and retention services, or to schedule an appointment, call (608) 757-7668 at the Central Campus.

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. Approximately one week prior to the end of the semester the bookstore does have a book buyback program.

The bookstore has available a wide range of textbooks, educational materials, and school supplies available to you. The bookstore is open Monday and Tuesday from 8:00 a.m.-7:00 p.m., Wednesday and Thursday from 8:00 a.m.-6:00 p.m., and Friday from 8:00 a.m.-2:00 p.m. The bookstore is open additional hours, for your convenience, during the first week of classes. Call (608) 757-7672 for more specific information or access their website www.efollett.com which is also linked to BTC's website. 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 have the books shipped, or to prepay.

Bulletin Boards and Notices

Notices, announcements, and posters are permitted only on bulletin boards. All must carry a dated approval stamp

obtained in Student Services. It is strongly recommended that this approval be obtained prior to printing a supply of any posters or announcements, as some restrictions may apply. Only posters, flyers, etc. pertaining to campus activities, classes, or services of a direct nature to student interests will be approved.

Items "for sale" or "wanted" may only be posted on specially designated bulletin boards near the Commons. An expiration date for all notices will be indicated and it is the student's and/or organization's responsibility to remove the dated postings. Any announcements not carrying the approval stamp or not on the appropriate form will be taken down.

Blackhawk Technical College does not permit advertising of alcoholic beverages on District facilities. Posted materials may not have alcoholic beverage logos or the words "beer, wine, mixed drinks, alcohol, etc." or promote "all you can drink." All posted materials must be in good taste and appropriate to an educational facility. Materials which are racist or sexist in nature will not be permitted.

Bus Transportation

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 schedules to the degree possible. Bus schedules, fare information, routes, etc. are available at the information Desk at the Central Campus.

BTC also has a new student bus shuttle service that links all five campus locations. A two-bus fleet transports students to and from the Beloit Center, Monroe Campus, the Center for Transportation Studies in Janesville and the new Advanced Manufacturing Center in Milton with routes that run Monday through Friday starting at 5:30 a.m. and ending at 10 p.m.

The bus system provides stops and services from the Beloit Center, 50 Eclipse Center, Beloit; Monroe Campus, 210 4th Ave., Monroe; the Center for Transportation Studies, 1740 Hwy. 14 West, Janesville; and the Advanced Manufacturing Training Center, 15 Plumb St., Milton.

Career & Professional Development Services

The Career and Professional Development Office helps students with career planning and employment needs. Individual career advising is available by appointment. The Career and Professional Development Office resources include Wisconsin TechConnect (the Wisconsin Technical College student and alumni employment website with current employment opportunities), printed materials on occupations, career planning and workshops, internship search strategies, resume writing, and interviewing skills.

Career & Professional Development Services

Other resources include self-assessments such as interest, trait, work values inventories, and personality indicators. Computers are available for resume preparation, and the Internet may be accessed in the Career and Professional Development Office to assist you with employment opportunities. Staff is available to assist you in your use of the Career and Professional Development Services. These services are also available at the Monroe Campus. The Career and Professional Development Office is open Monday through Friday (8:00am – 5:00pm). Evening hours are available by appointment. Call (608) 757-6329 for more information or to schedule an individualized appointment.

Food Service

The Student Commons is the focal point for students on the Central Campus. The adjacent food service area (The Courtyard Grill) 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.

Student Computing Resource Guide

Your network logon gives you access to BTC computer network services, such as the Internet, Microsoft Office products, a BTC student e-mail account, and your personal data storage space (your home directory or "H" drive). Every registered student is assigned an account. Protect your access and keep your password confidential by logging off the computer when you leave.

To Log On: When the computer is turned on, a "Welcome to Windows" message will display. Press CTRL + ALT + Delete to begin. You will be prompted for your username and password.

Your username is the first initial of your first name and your full last name (no spaces between). Some users will have digits added to ensure uniqueness. Your username can be found on your schedule/bill when you register for classes, and is also available in Banner.

Your default password is your nine digit student ID number, found on your schedule/bill from registration.

The "Logon To" field should be set, using the drop down box provided, to Instruction. Press OK to complete. You will be prompted for a password change the first time you log on.

Passwords: You will be prompted to change your password every 90 days. Passwords must be six or more characters in length and may include letters, numbers and special characters. Passwords are case-sensitive.

To change your password:

1. Press Ctrl + Alt + Delete
2. Select Change password
3. Enter your current password
4. Enter your new password twice
5. Press "OK"

Remember: Always log off the computer when you finish by clicking Start - Log Off.

Banner - Your Student Records

Online Registration

You may register if you have been previously enrolled (within the last 185 days) or are currently enrolled and have a student identification number and personal identification number (PIN). Visit the BTC website, at www.blackhawk.edu. At the top of the web page select Online Services and then select Banner Web. Enter your log on info with PIN and follow the instructions to register. You will be asked for additional security information the first time that you log in to your account.

Your PIN is a six digit number. Your default PIN is your birth date in MMDDYY format (so a birth date of January 1, 1983 will be 010183).

Your PIN will need to be reset the first time you log in and every 90 days after that (you will be prompted when necessary). You will also be prompted for two security questions that will be used if you forget your PIN and need to reset it.

The web for Student Menu appears containing two options: Student Services and Financial Aid and Personal Information.

The Student Services and Financial Aid menu includes options for admission, registration, student records (including grades and bills) and financial aid information.

The Personal Information menu includes options for viewing and changing your address, phone, and e-mail address. You will also find your network login information here.

Online Learning

All online classes utilize Blackboard, along with some traditional delivery method classes. Your instructor will provide that information.

To Log On: Open an Internet browser and navigate to <http://www.blackhawk.edu>. Click on the Blackboard link at the top right-hand corner of the page.

Online Learning

Your Blackboard username is the first initial of your first name and your full last name (no spaces between). Some users will have digits added to ensure uniqueness. Your username can be found on your schedule/bill when you register for classes, and is also available in Banner.

Your default password is your nine digit student ID number, found on your schedule/bill from registration. Passwords can be changed within Blackboard and are independent of the network and Banner passwords.

Blackboard support documents can be found on the Blackhawk website:

<http://www.blackhawk.edu/OnlineServices/BlackboardSupport.aspx>

Remember: Always exit your account and close the browser when you finish.

E-mail

All students are assigned e-mail accounts.

Your e-mail address will be username@students.blackhawk.edu

Student e-mail accounts can be accessed via the BTC website at www.blackhawk.edu and select Login Services at the top of the page, then Webmail Login in the drop down menu. Your username and password are identical to your network username and password. Your username needs to be prefaced with instruction\ when accessing e-mail on the Web.

Need Help?

For help logging on to the network, contact your instructor, the help desk at (608) 757-7711, or visit www.blackhawk.edu and click on Login Services at the top of the page, then Information Technology in the drop down menu. Click on IT Guides on the left to review instructions for all systems.

For Blackboard log in assistance, contact OnLineLearning@blackhawk.edu or call (608) 757-7632. For all other Blackboard questions, contact your instructor.

Computer Use

Computers and computer systems owned by BTC are to be used only for academic/instructional activities, and other official college business. They are intended for use by BTC staff, students and customers.

Students will be provided logon identification and a temporary password at the time of initial student registration. Usernames and passwords are unique to individuals and must not be shared. Every student is

responsible for any activity under his/her username and password. Therefore, students should always log off a computer after each use. Computer users will be prompted every 90 days to change their passwords.

Any use of college computer equipment and systems for illegal, unethical or fraudulent purposes is prohibited. Displaying on college equipment or systems, or transmitting or distributing any material that is demeaning to persons of a particular gender, race, creed, ethnicity, disability, sexual orientation or other protected class is considered harassment and is, therefore, prohibited.

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, 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, Room 2209, deaf/hh call Relay 711. Please request accommodations at least three weeks prior to the start of classes to ensure services are in place. BTC standards regarding course quality and academic progress must be maintained.

Transition services are available to assist potential students with career exploration and developing of 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 COMPASS 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) 757-7713. Please request accommodations at least two (2) weeks prior to the event; however, requests with shorter notice will be provided whenever possible.

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.

Student Identification Cards

Identification cards are available to all BTC students who are enrolled in credit or basic skills courses. The cards include 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.

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 Engagement Office or the Welcome Center. For more information contact the Welcome Center. In order for a BTC student ID to be issued all students must present a valid picture ID.

Learning Centers/Tutorial Services

Learning Centers are available at the Central Campus, Monroe Campus, the Rock County Job Center, and the Beloit Center. You may attend classes or receive lab tutoring to improve your basic academic and study skills, to prepare for the GED/HSED or high school diploma, or to learn the English language. Developmental and academic classes are intended to help you successfully complete your program/course requirements and assignments. The Central Campus Learning Center is open from 9:00 a.m. to 4:00 p.m. and 5:00 p.m. to 8:00 p.m. Monday through Thursday, and Friday from 9:00 a.m. to 1:00 p.m. For more information about class schedules, hours of operation and locations, contact Central Campus at (608) 757-7676, Monroe Campus at (608) 329-8204, the Rock County Job Center at (608)741-3566, and the Beloit Center at (608) 757-7669.

Tutoring Services provides program tutoring, at no cost, to enrolled students. Tutoring is provided in cooperation with Blackhawk Technical College's academic departments. A variety of methods are used to assist student success (online, learning lab assistance, study leaders, and study groups). Tutoring services are available at all campuses and centers upon request. If you need a tutor or are interested in becoming a tutor, please contact the Tutoring Services Office at (608) 757-7656.

Library

BTC has libraries at the Central Campus, Monroe Campus, Aviation Center and the Center for Transportation Studies. During fall and spring semesters the Central Campus library is open on Monday through Thursday from 7:30 a.m. – 9:00 p.m. and on Friday from 7:30 a.m. – 4:00 p.m. It is open from 9:00 a.m. – 1:00 p.m. on Saturdays. Hours vary for the other libraries.

For more complete information about resources and services, contact the staff or visit the library web page, 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 \$2.00 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.

Lost and Found

The Lost and Found is located at the Welcome Center directly inside the main entrance. It is generally open from 8:00 a.m. to 7:00 p.m. Monday through Thursday and 8:00 a.m. to 4:30 p.m. on Friday. Anyone finding an item should turn it in to the Welcome Center. All items will be stored for 90 days and then sent for donation.

Multicultural/Diversity Services

Blackhawk Technical College provides supportive services designed to assist students with many aspects of their educational experience at BTC. Services include advisement of entry requirements; orientation to college activities; program resources and procedures; and administration of various scholarships and loans for ethnic minority students. The office responsible for assisting with providing multicultural services and activities is located in Student Services. The Student Network of Activities and Programming (SNAP) and the Diversity Action Committee also provide multicultural activities.

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-served 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.

Several designated areas have also been set aside for special purposes. There is short-term parking for parents dropping their children at the day care center. There is also a designated area for motorcycles. 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 Dept.

Parking

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

Student Referral

When you experience problems completing program or course requirements, it is important that you seek help immediately. Sometimes an instructor may refer you to a advisor and retention specialist for assistance. A student referral form is used for this purpose. Once a referral form is received, the advisor will meet with you to discuss steps necessary to improve your academic performance. You are also urged to communicate directly and promptly with your advisor when you are notified that a referral has been submitted.

Student Printing Costs

The College has a student printing allocation program. This program limits the number of free print pages available to students, with additional services available for purchase online or in person.

The number of free pages is determined based upon student printing history and faculty feedback and are as follows:

- Fall & Spring semesters – \$15.00 (equivalent to 300 pages black & white)
- Summer semester – \$5.00 (equivalent to 100 pages black & white)
- Print charges are \$0.05 for black and white and \$0.20 for color printing

Students who violate computer use policies may lose privileges to the college equipment and systems, and/or may be subject to disciplinary action. BTC reserves the right to monitor the computer system and computer network use.

Telephones and Messages

Pay telephones are available for student use outside the Administration Building. You are encouraged to use this phone to conduct your business. Students are not allowed to use the school office phones. Deaf/hard of hearing, please call through relay. Red-colored emergency phones are located throughout the Central Campus which connects directly with the main switchboard. No dialing is necessary. 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, child care providers, etc. of the above limitations and develop alternate arrangements in the event they cannot be located.

Tutoring Services

Tutoring Services provides academic tutoring, at no cost, to enrolled students. Tutoring is provided in cooperation with Blackhawk Technical College's academic departments. A variety of methods are used to assist student success (peer tutors, lab assistance, study leaders and groups). Tutoring services are available at all campuses and centers upon request. If you need a tutor or are interested in becoming a tutor, please contact the Tutoring & Testing Specialist at (608) 757-7656.

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 disciplinary 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 or property and persons at BTC, you should report the incident immediately to the Student Services Office or the designated center supervisor. BTC staff will assess the situation and determine if an emergency response is necessary. When, in the judgment of the BTC staff member on the scene, 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 local law enforcement for investigation and disposition.

Behavior Intervention Team (BIT)

The College has instituted a zero tolerance to violence policy. No act of violence, be it physical, verbal, or mental will be tolerated, and will be dealt with quickly, and in accordance to the level of violence.

As part of that policy, the college has also instituted the Behavior Intervention Team (BIT). The team is responsible

for assisting students with behavior that is affecting their academic performance.

The Vice President of Student Services is the point of contact for the team and may be reached by telephone (757-7713), or e-mail (erobinson@blackhawk.edu).

Safe Walk

SafeWalk is a service provided by BTC for night students and staff. The service provides those wishing to use it with an escort to your car by a SafeWalk representative. The hours of operation are Monday through Thursday, 6:00 P.M. to 10:15 P.M. From 8:00 P.M. until 10:15 P.M. SafeWalk personnel will be available every 15 minutes to walk you to your vehicle. The meeting and departure point from the building will be the lounge area in the front lobby next to the information desk. SafeWalk personnel will be available prior to 8:00 P.M. by contacting the front desk at (608) 757-7710. The SafeWalk person on duty will have an identification card, and will be dressed in uniform pants, a polo shirt with SafeWalk printed on the front and back, and when needed a jacket with SafeWalk printed on it. The SafeWalk Person will have a radio with them at all times, and can call for assistance from 911 directly if needed.

Security of and Access to BTC Facilities

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.

Security of BTC facilities is provided through a number of mechanisms, including establishing hours of operation, locked doors, keys limited only to those persons with a direct need to access certain areas, and the provision of lighting for security purposes. Other security mechanisms may vary by facility. BTC utilizes local law enforcement agencies to patrol parking lots and other areas around the facilities. When an incident occurs, BTC utilizes the services of local police authorities who have the statutory power to enforce applicable laws and who possess arrest powers. BTC will issue timely warnings when a reportable crime is known to the college and it poses an ongoing threat to personal safety.

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 the following website: blackhawk.edu/Click Campus Safety Report. A copy can also be obtained in Student Services.

Sex Offender Registry

Federal law requires BTC to provide Information 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 at 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

Campus Safety

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 Gohlke, *Director, Human Resources Affirmative Action Officer, Administration Center* Phone: (608) 757-7773

Stephanie Williams, *Student Services, Title IX Officer*
Phone: (608) 757-7702

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

Wanda Sloan, *Human Resources, Diversity Specialist*,
Administration Center, Phone: (608) 757-7745

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.

Accident or Illness Emergency Procedures

BTC uses the professional medical treatment system available in the community to respond. 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 or life threatening in the opinion of the staff member on the scene, an ambulance may be requested at the discretion of that staff member. 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, so that first aid and follow-up treatment can be provided and an accident report prepared.

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 information desk at the main entrance and request maintenance/custodial staff to clean up the area.

In case of emergency, call 911. (*Depending on your campus location, you may need to dial "9" first or use the red-colored emergency phones located in the hallways at the Central Campus to reach the switchboard. They will contact 911 for you.*)

Student Life

Awards Program

The honors recognition program culminates in late April at the annual Awards Banquet and Reception sponsored by the Student Government Association. During the program, individuals are recognized for their academic achievements, participation in clubs and student organizations, and contributions to the community as well as BTC.

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, student mentors, tour guides, group facilitators at area schools and community organizations, 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.

Student Life-Clubs and Organizations

Student organizations provide valuable experiences to students by fostering leadership, personal development, career opportunity and community relations. They are considered an integral part of the total educational experience at BTC. Students may choose from the following organizations:

Student Life-Clubs and Organizations (cont.)

American Welding Society (AWS)

AWS advances the science, technology and application of welding. Students have the opportunity to enhance their welding skills through practice, professional development and competitions.

Association of Information Technology Professionals (AITP)

The AITP is open to students interested in Computer Information Systems. During the year, you will be involved in community service projects, social functions, field trips and fund raising projects.

Business Professionals of America (BPA)

BPA contributes to the "preparation of a world-class workforce through the advancement of citizenship, academic and technological skills." The club is open to all students interested in business related fields. Students have the opportunity to compete at a local, state and national level in business competitions.

Intervarsity Christian Fellowship

Students will participate in community service, leadership events and be part of a community that shares the values of faith, fruitfulness and growth.

Criminal Justice Association

This is an organization of interested students and staff working together to enhance training and education in the Criminal Justice program and develop interest in the many fields Police Science offers.

Epicurean Club

The Epicurean Club enables Culinary Arts students to participate in educational activities which enhance their program. Students have the opportunity to show off their talents at various competitions throughout the year.

Health Occupations Students of America (HOSA)

Students interested in health occupations develop leadership, citizenship, personal and professional skills and promote various service projects throughout the District. On-campus activities are also part of the organization's programming.

Industrial Occupations Club

Students acquire a sense of belonging to American industry and an enthusiasm for learning. Members are presented with many opportunities for leadership development, community & school service, educational experiences and social programs. Members help promote and sustain American industrial technology.

Multi Ethnic Cultural Association (MECA)

Members represent campus diversity through campus and community activities. Members promote goodwill, develop leadership skills and achieve academically. Fundraising

is a major function of the club to help sponsor annual scholarship awards for active members.

Phi Theta Kappa Honor Society

This is the official honor society of two-year institutions and community colleges. Phi Theta Kappa promotes academic achievement and leadership, and provides service and fellowship for students qualifying for this organization. Membership is by invitation and determined by academic achievement. For more information, contact Glenn Hoffarth, General Education Division, at (608) 757-7646.

Postsecondary Agriculture Student Organization (PAS)

Open to all students, the organization meeting primarily at the Monroe campus. PAS works with students interested in agriculture, agribusiness and natural resources, and provides opportunities of individual growth, leadership & career prep.

Outdoor Club

The Outdoors Club is open to all BTC credit students. It was formed in 1997 to provide students recreational skills and experience in sports that promote health and wellness. The club participates in SGA and promotes on- and off-campus activities.

Society of Human Resource Management (SHRM)

SHRM engages, updates and supports students in the field of human resource management and enhances student activities and participation at Blackhawk Technical College.

Veterans Club

The Veterans Club aids the transition from military to college life. Veterans and other students have the chance to socialize, share problems, perform public service and get current, accurate information on veteran's issues.

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 & administration can use the facility for \$50 per year. The fee is non-refundable and is valid from September-August of each year.

Job Placement/Employment Development

BTC provides a link between employers, students and alumni. A listing of current employment opportunities, labor force information and materials to help you be successful in a job search are available. Wisconsin and federal job listings are also available through the Internet. Prospective graduates are encouraged to contact Kerry Osmond at kosmond@blackhawk.edu, (608) 743-4419 in the Student Success Center for more info.

Student Government Association (SGA)

The Student Government Association (SGA) promotes citizenship and leadership, fosters a spirit of democracy and unity in student activities and encourages mutual understanding among students, administration and staff. SGA is composed of representatives from each program and club who meet during the activity period to discuss and act on issues of importance to the student body. Students have the opportunity to participate in professional development programs and leadership opportunities offered throughout Wisconsin.

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 Life Office with a Student ID or driver's license serving as the deposit to check out the ball.

Things You Need to Know

Change of Name, Address and Phone Number

If you change your name, address, or phone number, it is important that you notify Express Services immediately. BTC needs to have up-to-date information on file in the event of an illness, an emergency, the mailing of grade reports, etc. The service is for your benefit and safety, and we would strongly encourage you to notify us of any changes in personal information. Forms are available in Student Services or on the BTC Registration and Records website.

Changes/Verifying Program of Record

If your goals and needs change and your program no longer meets your objective, you can change your program, in most instances, at any time during your admission process or even after you have begun your program. You will need to meet with a program advisor if you plan changing your program

of study. During this meeting, a new academic plan will be created and you will discuss program requirements. This must occur before a change will be processed.

Ensuring the accuracy of your program of record is an important issue. Not only can this possibly affect financial aid eligibility, but it could also affect graduation from your program and your permanent records at Blackhawk Technical College. If, at any time, you would like to verify your program of record, simply contact the Admissions Office.

Program Wait Lists

A program wait list may be established when there are more applicants than there are spaces available in a particular program. If your name is placed on a wait list, the Admissions Office will contact you when a spot in the program opens up.

Insurance

Insurance programs for students are available by third party vendors. The college does not endorse a particular option. Materials about plans are available in Student Services. Students desiring further information may contact the Student Services Office on the Central Campus.

Privacy and Access to Student Records

Blackhawk Technical College (BTC) policy on privacy of records and releasing of information follows the directives outlined in the Family Educational Rights and Privacy Act (FERPA), the federal law governing the protection of educational records. Registered students will be notified of this policy on an annual basis. Others can find the policy in the BTC Handbook, on blackhawk.edu or may obtain a copy of the policy upon request from the College.

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 Director of Student Development (DSD) written requests that identify the record(s) you wish to inspect. The DSD will make arrangements 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.

Things You Need to Know

2. The right to request the amendment of the student's education records that the student believes is inaccurate or misleading.

You may ask BTC to amend a record that you believe is inaccurate or misleading. You should write to the Vice President of Student Services, 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 you requested, BTC 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

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. The term Directory Information is a legal term applying to that information that the college can release, without student consent, to any third party.

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 Offices on the Central or Monroe Campuses. The request to restrict disclosure of Directory Information will be honored until such time as the student notifies the Express Services or Registration Offices, 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.

Things You Need to Know

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.

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.

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. You will 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

Retraining Guarantee Policy

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 Employment Development Service located in the Student Success Center and actively pursued employment in your occupational field or a related field. Other guidelines may also apply. 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.

Unattended Children

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 BTC programs or courses. 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.

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

RADIO

- WTJK 1380 AM—Beloit
- WEKZ 93.7 FM—Monroe
- WKPO 105.9 FM—Janesville
- WCLO 1230 AM—Janesville
- WTSO 104 FM—Madison
- WSJY 107 FM—Janesville/Fort Atkinson
- WJVL 99.9 FM—Janesville
- WEKZ 1260 AM—Monroe
- WZOK 97.5 FM—Rockford
- WGEZ 1490 AM—Beloit
- WFAW 940 AM—Janesville/Fort Atkinson

TELEVISION

- WISC Channel 3—Madison
- WKOW Channel 27—Madison
- WMTV Channel 15—Madison
- WTVO Channel 17—Rockford
- WREX Channel 13—Rockford WIFR Channel 23

Business and Community Development

WTCS Student Complaints Workforce Training, Economic Development and Outreach to Our Communities

Each year more than 3,500 Green and Rock County incumbent workers, job seekers and adult learners look to Blackhawk Technical College to fill their need to be lifelong learners. 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 the BTC outreach learning centers, or at the business where you are employed.

The Business and Community Development Division (BCD) provides business and professional development seminars and workshops, customized training services, experiential learning programs, continuing education opportunities and an array of short-term courses in a variety of settings. This division also schedules learning opportunities for individuals seeking enrichment, or furthering their knowledge and skills for work or fun. BCD staff work directly with business and industry, education, community organizations and others to customize training and consulting services that can include onsite or on-campus training, workshops, seminars and technical assistance consulting services.

Customized training and business consulting is the core of the services provided by BCD. Our professional staff assesses your business and training needs and then designs and delivers services that help your business or organization meet its goals. Training and consulting is provided at your site or at any of the BTC centers or campuses. Business seminars, organizational analyses, employee skills assessments, business planning assistance and facilitation services also are available.

A dedicated manager will match the right trainer or consultant to your organization's needs. The manager assists in creating solutions to your specific issues by custom designing curriculum and activities. Your manager can also guide you to State of Wisconsin funding assistance that may be available to help offset your training investment.

Our clients include businesses and organizations from the following sectors:

- Manufacturers
- Transportation and Distribution Facilities
- Construction and Skill Trades
- Protective Services
- Community Based Residential Facilities
- Community Organizations
- Education
- Health Care
- Food Processing
- Finance and Accounting
- Real Estate, Insurance, Appraisal

Business and Community Development

Recent examples of training and consulting services that have been provided through BCD include:

- Analytical Thinking
- Computer Software
- Customer Relations Management
- Early Childhood Training (Wisconsin Model Early Learning (WMEL)
- Experiential Learning Activities
- First Aid/CPR
- Food Sanitation
- Forklift Operation
- Human Resource Management
- Information Technology
- Leadership Development
- Lean/Six Sigma
- Maintenance Manufacturing Skills Standards Certification (MSSC)
- OSHA Training
- Personnel Mentoring
- Project Management
- Quality Management
- Real Colors®--A Workplace Communication Tool
- Sales and Marketing
- Strategic Planning
- Time Management

Training and Consulting Services

BCD consultants assist businesses and organizations with training, consulting and facilitation needs. For information contact the Business and Community Development Office at (608) 302-1695 or (608) 757-7650.

Continuing Education Courses

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

Upgrade Your Skills

Enhance your skills or jump start a new career by acquiring the tools needed to excel on the job. Continuing education classes offer an affordable option for exploring new areas of interest. Some may need a specific certification or continuing education in the area of real estate, insurance, food manager certification or mobile air conditioning operators. We provide this training using industry veterans that know the field and can teach the most important elements.

Career Preparation

You might also want to explore or prepare for a new career. We have classes in electricity, AutoCAD, electrical exam preparation, programmable logic controllers and many others. Short-term trainings lasts from four to 10 weeks and is valuable in preparing for and deciding upon a new career.

Anytime Classes

Through our partnership with Gatlin Education, you can take online certification courses in one of 300 different areas. Explore certified programs include Biofuel Production Operations, Wind Energy, Lean Mastery, Forensic Computer Examiner, Medical Billing and Coding, Personal Fitness Trainer and Video Game Design, to name a few. You can find these at <http://www.gatlineducation.com/blackhawktech/>.

Community Education

Blackhawk Technical College has classes just for you. No grades, no pressure -- just fun and purpose in learning. We offer more than 120 classes at the Central Campus, Beloit Center, Center for Transportation Studies (North Janesville), Milton and Monroe. Pick a class, a location and get started right away. There are many classes for beginners, so if you have never flipped a switch on a computer or spoken a word of Spanish, we have a seat for you.

Enrich Your Life

Personal enrichment classes are a great way to explore new interests and keep both physically and mentally active. Whether it's art, woodworking, cooking or wellness, BTC has something that will enrich your life.

More Anytime Classes

Save gas and time by looking into our online 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 www.ed2go.com/blackhawktech/

Teach a Class

Interested in teaching a class? Or perhaps you have an idea for a new course. If so, please contact our continuing education coordinator and learn what opportunities might be available. Information about BTC's workforce training and economic development services are available through the Business and Community Development Division at www.blackhawk.edu.

The Academic Support Division faculty and staff provide basic skills education, GED/HSED instruction, classes for English Language Learners and support services which assist students to prepare for and succeed in post-secondary education. The division works closely with other divisions of Blackhawk Technical College as well as local schools and industry to develop programs to meet educational needs in the community.

The division provides an array of services in response to students' unique circumstances, abilities and goals. Instruction is provided via classroom, workshop, tutorial computer, CD Rom and personal individualized assistance through our Learning Centers. Our instructional staff is sensitive to the concerns of adult students who desire to complete or continue their education. We are equipped to provide students with supportive services and referrals as well as personal support.

A pre-assessment of academic needs (TABE) is required. Material fees may apply. Contact the BTC Learning Centers:

Central Campus

6004 S City 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

GED Testing Service®

Blackhawk Technical College is an authorized testing site for the General Education Development (GED) and High School Equivalency (HSED) credentials through a program of the American Council on Education. The GED and HSED 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 1-(800) 498-1282, ext. 7666.

Basic Skills Education (BSE)

This program is open to all adults of the district who need to improve basic academic skills and/or self-confidence before or simultaneous to vocational program enrollment. BSE classes are offered throughout Rock and Green Counties at various community sites in addition to BTC's Central and Monroe Campuses and the centers at Beloit and the Rock County Job Center.

Some Basic Skills Education courses are designed to give specific preparation for vocational or technical courses. These courses have been set up with the cooperation of a particular division to provide the basic skills necessary for entry into its programs.

For the student who has been away from school for a long time, or whose high school preparation was deficient, BSE classes can provide the review and basic skill development that may make the difference between success and failure in a vocational/technical program.

All programs in this section are offered at no cost though there may be an assessment or materials fee.

CALC-Computer Assisted Learning Center

CALC combines small group instruction and computer technology to teach a variety of basic skills in a way that develops the core abilities that employers desire. Students demonstrate personal responsibility, time management, ability to work cooperatively and the use of technology as they work through their individual learning plans within the framework of a structured curriculum. Flexible scheduling allows students to accelerate learning and meet individual goals. At one end of the CALC instructional program are basic language skills such as beginning reading, writing, and vocabulary for English and non-English speakers. Instruction continues across a range ending at higher level reading, language and math competencies needed in many vocational programs. A trained instructor is always available to assist and guide students as they progress at their own pace in this personalized education program. This program is particularly effective for students who need non-traditional schedules and for those who prefer a lab setting over a formal class setting.

ELL-English Language Learning

ELL provides Basic Skills Education instruction in speaking, listening, reading and writing skills for adults whose native language is not English. The stress is on speaking English necessary for employment and to function in a new community. ELL classes are provided at no cost on a need basis in various community locations throughout the Blackhawk District.

Family Literacy Programs

Blackhawk Technical College works in cooperation with the Beloit Public Schools to provide parenting and classes for English Language Learners (ELL). The Even Start Family Literacy program provides a family-centered learning model for parents who wish to improve basic literacy. Effective parenting skills are reinforced by bringing children and parents together for joint learning experiences.

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 Centers

In the Learning Centers, students study at their own pace to prepare to take GED/HSED tests, prepare to enter vocational programs or post-secondary studies and obtain tutorial assistance with vocational studies.

Subjects are presented through self-study materials and audio-visual presentations. Individualized instruction allows students to learn at their own rates. Students arrange their study schedules and study the number of hours per day that they wish. An instructor is available to offer guidance and assistance as needed or requested. The Learning Centers are open at convenient hours. Students are encouraged to stop in during their free time.

RECAP Project

The Rock County Education and Criminal Addictions Program (RECAP) is a cooperative program between Blackhawk Technical College and the Rock County Sheriff's Department. The program provides Basic Skills Education, GED/HSED instruction, counseling on overcoming addictions, cognitive intervention, work and community service with the goal of reducing recidivism.

Tutorial and Instructional Assistance

Tutorial and classroom instructional assistance is available for students enrolled in technical diploma and associate degree programs. Individual instruction helps students with their study skills and academic subjects at the Central Campus during weekdays and selected evenings.

GED-General Education Development Certificate

HSED-High School Equivalency Diploma

This fulfills the high school diploma requirement for most jobs. It is acquired by successfully completing five exams. The GED/HSED option is an attractive alternative for those non-high school graduates who have little or no high school credit accumulated. The General Education Development Certificate (GED) is issued by the State Department of Public Instruction (DPI) to a student upon satisfactory completion of five exams. A High School Equivalency Diploma (HSED) is also issued by the State through BTC based on attainment of three additional requirements to the GED. The minimum age is 18 years, six months.

State Department of Public Instruction-approved testing centers for the Blackhawk Technical College District are at the Central Campus, Beloit Learning Center, Monroe Campus, Rock County Job Center and the Rock County Jail. A list of regularly-scheduled testing dates, times and locations is available each semester. This information is also announced in the local media or may be obtained by contacting one of the Learning Centers.

Classes for GED/HSED preparation are available throughout the Blackhawk Technical College District. Call specific center for schedule.

851-713 BSE Communications I 3 Credits

Introductory course includes basics of punctuation, spelling, capitalization as needed for written expression in everyday situations. Basic sentence and paragraph construction will be included.

851-755 BSE Communication Skills Workplace Learning Center 2 Credits

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.

851-762 Communication 2 3 Credits

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.*

851-763 BSE Writing for COMPASS 2 Credits

This course will provide instruction in writing skills needed to be successful on the COMPASS writing test.

851-764 Communication 2 GED Review 3 Credits

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.*

851-771 BSE Communication 3, GED 3 Credits

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.

851-772 Communication 3 GED Review 3 Credits

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.*

851-780 BSE Communication 3, Review 3 Credits

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.

851-781 Communication 3 2 Credits

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.*

851-791 ASE High School English 2 Credits

This course prepares students in writing concise and accurate sentences and paragraphs by focusing on basic grammar, punctuation, and spelling.

851-793 ASE Literature & Composition 2 Credits

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.

853-791 ASE American History A 2 Credits

Covers the time beginning with cultures existing on the North American continent prior to European exploration and discovery to the end of the 19th Century. Units include: Native Americans, independence, westward expansion, the Civil War, reconstruction and the rise of industry.

853-792 ASE American History B 2 Credits

Covers the time beginning with the turn of the century through the 1980's. Units include: World War I, the Twenties, the Great Depression, World War II, the Cold War, civil rights & recent changes.

854-713 BSE Mathematics 1 3 Credits

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.

854-755 BSE Mathematics for Workplace Learning Center 2 Credits

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.

854-762 Math 2 3 Credits

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.*

854-763 BSE Mathematics for COMPASS 2 Credits

This course will provide instruction in math skills needed to be successful on the COMPASS math test.

ACADEMIC SUPPORT

854-764 Math 2 GED Review 3 Credits

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.*

854-765 BSE Certified Nursing Assistant Mathematics 2 Credits

This course will provide instruction in math skills needed to be successful in the Certified Nursing Assistant Program.

854-771 BSE Mathematics, GED 3 Credits

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.

854-772 Math 3 GED Review 3 Credits

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.*

854-775 ASE Algebra 1B 2 Credits

This course continues the concepts of Algebra 1A and expands to the elements of analytical geometry, systems of equation, radicals and exponents, quadratics, relations and functions. Trigonometry and statistics are also introduced.

854-781 Math 3 2 Credits

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.*

854-790 ASE General Math 2 Credits

This course provides students with a review of basic math principles addressing whole numbers, decimals, fractions, and units of measurement. Lessons include consumer math needs in the area of shopping, budgeting, maintaining household financial accounts, etc.

854-791 ASE Intro Algebra & Geometry 2 Credits

This course introduces basic concepts in algebra and geometry such as signed numbers, powers and roots, algebraic expressions, equations, rectangular coordinates, polynomials, angles, triangles and plane and solid figures. These concepts will be applied to problems in business, industry and/or the health occupations.

854-792 ASE Pre-Algebra A 2 Credits

This course introduces algebraic equations and problem solving by reviewing topics in integers, number theory, fractions, probability, decimals and percents.

854-793 ASE Pre-Algebra B 2 Credits

This course is a continuation of Pre-Algebra A. Algebraic concepts are developed further in areas of analyzing data, number line, coordinate planes, square roots and right triangles, polynomials, and finding volume and surface area.

854-794 ASE Algebra 1A 2 Credits

This course introduces students to the concept of algebraic expressions and the use of equations and polynomials, and their practical application to solve problems in relation to real-life situations.

854-796 ASE Geometry A 2 Credits

This course covers plane geometry, proofs, parallelism, congruent triangles, polygons, special quadrilaterals and similarity.

854-797 ASE Geometry B 2 Credits

This course is a continuation of Geometry A and covers right triangles, coordinate geometry, circles, area, loci, figures in space and transformations.

854-798 ASE Algebra 2A 2 Credits

This course is continuation of Algebra 1 and will further develop concepts in linear equations and inequalities, functions, linear systems in two variables, polynomials, higher degree equations, rational expressions, radical and exponents, complex numbers and polynomial equations.

854-799 ASE Algebra 2B 2 Credits

This course is a continuation of Algebra 2A. This course covers coordinate geometry, conic sections, exponential and logarithmic functions, statistics, sequences and series, linear systems, determinants, trigonometric functions,

solving triangles, graphing trigonometric functions and trigonometric identities.

856-713 BSE Science 1 3 Credits

Introduces basic science terminology and concepts. Students will explore general science topics using the scientific method to focus on relationships between the student's life experiences and job or learning goals.

856-762 BSE SCI 2 Review-Storefront 3 Credits

This course develops science and reading skills needed for the GED tests at the pre-GED level. The majority of the content and skill requirements will be in science.

856-764 BSE Science 2 3 Credits

Develops basic scientific knowledge as applicable to problems and experiences in our world. Will include biology, earth science, physics and chemistry concepts, and the application, analysis and evaluation of them. This course introduces students to the skills needed for the GED test at the pre-GED level.

856-771 BSE Science 3,GED 3 Credits

A continuation of Science 2. Concentrates on higher level comprehension, application, analysis and evaluation skills needed for the GED test. Includes topics in biology, chemistry, earth science and physics.

856-780 BSE Science 3, Science Review 3 Credits

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.

856-781 BSE Science 3, Science Review 3 Credits

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.

856-791 ASE General Science 2 Credits

This course provides students with insights into biology, the human body, matter and energy, the earth and its place in the universe.

856-793 ASE Physical Science 2 Credits

This course introduces students to concepts in physics and chemistry. Topics include forces, motion, electricity,

magnetism, sound, light, heat, energy, atomic structure, the periodic table, acids, bases, and organic chemistry.

856-794 ASE Biology Prep 2 Credits

This course provides an overview of biology. Topics include the diversity of life, body systems, animal and plant behavior, disease, genetics, change in living things and ecology.

856-797 ASE Anatomy & Physiology Prep 2 Credits

This course prepares students for a college course in anatomy and physiology. Basic concepts in studying the human body are covered along with study skills to help the student become a "self-learner".

856-799 ASE Chemistry Prep 3 Credits

Students learn basic chemical principles by listening to lecture, participating in class discussions and laboratory experiments.

857-771 BSE Health, HSED 2 Credits

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.

857-780 BSE Health 2 Credits

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.

858-713 BSE Reading 1 3 Credits

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.

858-762 Reading 2 3 Credits

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.*

858-763 BSE Reading for COMPASS 2 Credits

This course will provide instruction in reading skills needed to be successful on the COMPASS reading test.

ACADEMIC SUPPORT

858-764 Reading 2 GED Review 3 Credits

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.*

858-771 Reading 3 GED Review 3 Credits

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.*

858-780 BSE Reading 3, Eff Coll Rdg 3 Credits

This course concentrates on developing efficient college reading stressing vocabulary, reading, reading flexibility and rate, study skills and critical thinking needed for post-secondary and vocational programs.

858-781 BSE Reading, College Prep Read 2 Credits

This course concentrates on developing efficient college reading stressing vocabulary, reading, reading flexibility and rate, study skills and critical thinking needed for post-secondary and vocational programs.

858-790 Reading 3 2 Credits

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.*

859-713 BSW Social Science 1 3 Credits

An introduction to the basic concepts of social science, including history, geography, government, economics, political science and behavioral science. Emphasis is on general knowledge and application to everyday life, such as local government, community agencies and resources, geography and history as it relates to the immediate environment.

859-762 BSE Social Science 2 Review - Storefront 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.

859-764 BSE Social Science 2 3 Credits

Develops general knowledge in the areas of history, economics, political science, geography and behavioral sciences, as they relate to realistic decision-making and problem solving. The content will be global in nature and include current events and issues that stress the interdependence of individuals and nations. It will introduce higher level thinking skills needed for the GED test.

859-771 BSE Social Science 3, GED 3 Credits

Concentrates heavily on content in the areas of history, economics, geography, political science and the behavioral sciences. Also provides instruction preparing individuals to understand themselves and society. Includes a study of basic terms, inquiry and observation methods that provide background for life application. Course will be appropriate for GED completion.

859-773 BSE Social Science, Civics, HSED 2 Credits

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.

859-780 BSE Soc Sci 3, Soc Sci Review 3 Credits

This course allows students to work on an area in the Social Sciences that they need to review to be successful in later course work or in their career.

859-781 BSE Soc Sci 3, Soc Sci Review 3 Credits

This course allows students to work on an area in the Social Sciences that they need to review to be successful in later course work or in their career.

859-790 ASE Government 2 Credits

The civic 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's responsibility.

859-791 ASE Social Studies 2 Credits

Concentrates heavily on content in the areas of history, economics, geography, political science and behavioral sciences.

859-792 ASE Current Social Issues 2 Credits

This course reviews the federal government and then moves on to look at major domestic policy issues followed by major foreign policy issues.

859-793 ASE Sociology 2 Credits

Introduces students to the basic social concepts of the intercultural discipline of sociology. Concepts include culture, localization, social stratification, and five institutions, including family, political, economics, religion, and education.

859-794 ASE Economics 2 Credits

This is a course in basic survival economics. It covers many of the basic theories such as: supply and demand, economic systems, scarcity, opportunity cost, markets, prices, etc. Besides theory, there will also be instruction in some personal survival economics as well.

860-764 Computer Basics 3 Credits

This course covers elementary computer skills such as file management; document formatting, creating and management; using the Internet; basic e-mail and information management.

861-701 English as a Second Language, Advanced Communication 3 Credits

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.

861-702 ELL College Transitions Course 1 Credits

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.

861-704 English as a Second Language, Advanced Mathematics 3 Credits

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.

861-705 English as a Second Language, Advanced 3 Credits

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.

861-708 English as a Second Language, Advanced Reading 3 Credits

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.

861-711 English as a Second Language, Beginning Literacy, Communication 3 Credits

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.

861-714 English as a Second Language, Beginning Literacy, Mathematics 3 Credits

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.

861-715 English as a Second Language, Beginning Literacy 3 Credits

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.

861-718 English as a Second Language, Beginning Literacy, Reading 3 Credits

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.

ACADEMIC SUPPORT

861-731 English as a Second Language, Low Beginning, Communication 3 Credits

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.

861-734 English as a Second Language, Low Beginning, Mathematics 3 Credits

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.

861-735 English as a Second Language, Low Beginning 3 Credits

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.

861-738 English as a Second Language, Low Beginning, Reading 3 Credits

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.

861-751 English as a Second Language, High Beginning, Communication 3 Credits

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.

861-754 English as a Second Language, High Beginning, Math 3 Credits

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.

861-755 English as a Second Language, High Beginning 3 Credits

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.

861-758 English as a Second Language, High Beginning Reading 3 Credits

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.

861-771 English as a Second Language, Low Intermediate Communication 3 Credits

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.

861-774 English as a Second Language, Low Intermediate Mathematics 3 Credits

Learners will use critical thinking skills to solve problems using fractions, decimals, percents, and proportions. Basic algebra and geometry concepts will be introduced.

861-775 English as a Second Language, Low Intermediate 3 Credits

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.

**861-778 English as a Second Language,
Low Intermediate Reading 3 Credits**

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.

**861-791 English as a Second Language,
High Intermediate Communication 3 Credits**

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.

**861-794 English as a Second Language,
High Intermediate Mathematics 3 Credits**

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.

**861-795 English as a Second Language,
High Intermediate 3 Credits**

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.

**861-798 English as a Second Language, High
Intermediate Reading 3 Credits**

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.

862-713 BSE Emp Skls/Career Dec 1 3 Credits

Introductory course designed to make the student aware of the skills needed for various careers. Students will have the opportunity to learn about careers, to explore their own basic skill needs and to review reading, writing and math skills with computer or textbook.

**862-764 BSE Employability Skills/
Career Decision 2 3 Credits**

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.

862-771 BSE Employ Skls/Career Dec 3 2 Credits

Classroom activities provide students with awareness of their own interests, values and abilities. Students will be assisted in making appropriate career choices, and in making application for training, employment or financial aid.

862-781 BSE Employ Skls/Career Dec 3 2 Credits

Classroom activities provide students with awareness of their own interests, values and abilities. Students will be assisted in making appropriate career choices, and in making application for training, employment or financial aid.

862-789 BSE Career Plan-Single&Displcd 2 Credits

This course assists single parents and displaced homemakers by helping them build self-esteem and by aiding them in career decision making. Participants will identify and prioritize their values, identify interests and skills through testing, consider career alternatives, including good wage occupations, and set career related goals. Students will also learn techniques for stress reduction, assertiveness, self-image improvement, goal setting, and decision making.

890-771 BSE Study Skills 2 Credits

This course uses the textbook *Becoming a Master Student* to develop the skills necessary to be a successful college student. Students will learn how to study a textbook, how to take notes, how to write papers and how to interact assertively and cooperatively with fellow students, with teachers and significant others. They will also learn about campus and community resources, health, time and money management, and memory techniques. Speakers with expertise in the topics to be covered will be invited to class throughout the semester as their schedules permit. In class discussions, students share with each other the techniques that have worked for them.

General College Courses

General college courses are required for students who need additional academic preparation in order to be successful in General Education courses. Students are placed into these courses based on entry test scores.

General Education

General Education helps students develop core knowledge, skills and attitudes essential for personal and professional success. General Education is essential to occupational programming and the institution as a whole. General Education in the Associate Degree and Technical Diploma programs offers a core of knowledge that enables students to integrate their education into the context of the larger society. Classroom activities in communication, social science, mathematics and natural science are developed in an applied, integrated curriculum to reflect real world work situations specific to program areas while also preparing students to be lifelong learners.

General Education Methods of Delivery

The General Education Division prides itself on its flexibility. Classes are offered in a variety of formats including traditional, ITV, Accelerated Learning (ACCEL), Internet, Hybrid and web-enhanced. These following alternative delivery systems should be selected carefully:

Traditional: These courses meet several times weekly over a 17-week period. Instructors meet face-to-face with students in a traditional classroom setting.

ITV (two-way video and audio): Instructors meet face-to-face with students in studios both on- and off-site. Activities mirror regular classroom instruction with paperwork generally faxed between sites.

ACCEL: These courses generally meet four hours one evening per week for six to eight weeks. Students are expected to work in learning teams and complete a significant amount of work outside scheduled class hours. These courses were designed for working adults whose knowledge and expertise are an important part of the learning process.

Web-enhanced: Course that uses web-based technology to supplement a traditional course but does not reduce face-to-face time requirements. To be successful, students should have regular access to a computer with Internet capability.

Hybrid: Course that blends online and face-to-face delivery to reduce a portion of the seat time required. A substantial proportion of the content is delivered online with only about one-third of class meeting time required on campus.

Internet: A course where all of the content is delivered online with no face-to-face requirement. May require an on campus or online orientation, or other campus visits (testing).

Required for Associate Degree (21-30 Credits)

Students should check with their program advisor or counselor for the specific program requirements.

The General Education core for Associate Degree programs consists of 6-15 additional credits from the following disciplines:

Communication – 6 credits required:

Course #	Course Title	Credits
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
801-197	Technical Reporting (Pre-requisite: Written Communication)	3
801-198	Speech (May be substituted for 801-196)	3

Social Science – 3 credits required:

809-103	Thinking Critically and Creatively	3
809-166	Introduction to Ethics: Theory and App	3
809-172	Introduction to Diversity Studies	3
809-174	Social Problems	3
809-195	Economics	3
809-196	Introduction to Sociology	3

Behavioral Science – 3 credits required:

809-159	Abnormal Psychology	3
809-198	Introduction to Psychology	3
809-199	Psychology of Human Relations	3
809-188	Developmental Psychology	3
809-199	Psychology of Human Relations	3

Math and/or Science - 3 credits required

(Check with your program advisor or counselor for the specific program requirements.)

Electives - 0-6 credits required.

(Check with your program advisor or counselor for the specific program requirements.)

Technical Diploma and Certificate programs also require certain General Education courses to fulfill program requirements. It is important for students to determine the General Education requirements for their particular programs.

Course Descriptions

801-119 Mass Communications 3 Credits

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.

801-136 English Composition 1 3 Credits

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.

801-195 Written Communication 3 Credits

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.

801-196 Oral/Interpersonal Communication 3 Credits

Focuses upon developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects.

801-197 Technical Reporting 3 Credits

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.

801-198 Speech 3 Credits

Explores the fundamentals of effective oral presentation to small and large groups. Topic selection, audience analysis, methods of organization, research, structuring evidence and support, delivery techniques, and other essential elements of speaking successfully, including the listening process, form the basis of the course.

801-311 Communication 2 Credits

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.

801-390 Communication for the Health Professions 2 Credits

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. Students will learn special skills needed to write an effective cover letter and resume. Students will learn skills that will help them communicate effectively with patients or customers.

804-105 General Mathematics 3 Credits

This one semester course is intended to give the student a review of the basic principles of arithmetic (which includes whole numbers, common and decimal fractions, ratios, proportions and percents), as well as an introduction to algebra, the metric system, scientific notation, powers and roots of numbers, properties of basic geometric shapes, graphing, and an introduction to trigonometry and vectors. Besides being a required program course many students use this an elective to review these topics. It serves as the foundation for additional study of mathematics.

804-106 Intro to College Math 3 Credits

This is an introductory level course designed to review and develop fundamental concepts of arithmetic, algebra, geometry, and statistics. Emphasis will be placed on computational skills and applications of rational numbers; problem solving skills with ratios, proportions, and percent; basic principles and application of algebra, geometry, graphing, and statistics; measurement skills in U.S. Customary and Metric Systems; and the use of calculators as a tool.

804-107 College Mathematics 3 Credits

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.

804-110 Elementary Algebra with Applications 3 Credits

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.

804-112 Data Collection, Analysis & Presentation 3 Credits

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.

804-113 College Technical Mathematics 1A 3 Credits

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.

804-114 College Technical Mathematics 1B 2 Credits

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.

804-115 College Technical Mathematics 1 5 Credits

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.

804-116 College Technical Math 2 4 Credits

Topics include: vectors; trigonometric functions and their graphs; identities; exponential and logarithmic functions and equations; radical equations; equations with rational exponents; dimension of a circle; velocity; sine and cosine graphs; complex numbers in polar and rectangular form; trigonometric equations; conic sections; and analysis of statistical data. Emphasis will be on the application of skills to technical problems.

804-117 Business Mathematics 3 Credits

This course is designed to build your knowledge of math including whole numbers, decimals, fractions, percents, formulas, equations, and statistics. These skills will be reinforced in business applications including bank records, payroll, discounts, markup and markdown, interest calculations, annuities, depreciation, inventory and more.

804-118 Intermediate Algebra with Applications 4 Credits

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.

804-123 Math with Business Applications 3 Credits

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.

804-133 Math and Logic 3 Credits

Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.

804-144 Math of Finance 3 Credits

Students will create financial timelines to solve financial problems. They will solve problems involving simple and compound interest. Students will use discounting to solve problems. They will calculate the components of ordinary and complex annuities. Students will solve problems using financial formulas, business calculators, and or tables. Finally, students will use descriptive statistics and spreadsheet applications to interpret financial data.

804-189 Introductory Statistics 3 Credits

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.

804-196 Trigonometry w Apps 3 Credits

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.

804-304 Mathematic Fundamentals 2 Credits

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.

804-306 Shop Mathematics I 2 Credits

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.

804-308 Shop Mathematics II 2 Credits

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.

804-309 Shop Math III 2 Credits

This is a one-semester course designed to provide the student an understanding of statistical methods used to determine whether or not manufacturing processes are in control. The course will cover the history of statistical

process control (SPC), an introduction to statistics including probability, measures of central tendency and variation, histograms, normal distributions, variable and attribute charts and cause-and-effect charts. Emphasis will be placed on the application of these principles to help identify and resolve practical problems and procedures found in the machine shop and industry.

806-108 Applied Anatomy and Physiology 5 Credits

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.

806-110 Forensic Science (Criminalistics) 3 Credits

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.

806-112 Principles of Sustainability 3 Credits

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.

806-118 Metal Science 3 Credits

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.

806-121 Basic Chemistry 3 Credits

Basic Chemistry is a general chemistry course primarily for students in the Fire Science program. A variety of topics will be covered spanning both inorganic and organic chemistry. Appropriate, specific issues dealing with combustion and material handling will be stressed.

806-131 Anatomy & Physiology 4 Credits

Anatomy and Physiology teaches the fundamentals of structure and function of the human body to health occupations students. The learning process is accomplished through lecture, demonstration, and a "hands-on" laboratory experience. Anatomy and Physiology introduces the student to the location of all human organs and organ systems. It teaches the student the functional operation of each organ and organ system and how each of these functions relates to other organs and organ systems for the health and well being of the entire organism.

806-134 General Chemistry 4 Credits

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.

806-139 Survey Of Physics 3 Credits

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.

806-140 Physics 3 Credits

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.

806-151 Technical Science I 3 Credits

This course is designed to give the student a background in the fundamental principles of physics and applications of those principles in the technical and industrial fields. The major areas of study include measurements, mechanical relations of forces and motions, work, power and energy (linear and circular). If time permits, basic machines and fluid mechanics will also be covered. Sufficient mathematical treatment is given to the materials so that the students 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.

806-152 Technical Science II 3 Credits

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.

806-154 General Physics 1 4 Credits

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.

806-175 General Pathophysiology 3 Credits

This introductory course in pathophysiology covers topics related to alterations of homeostasis and the associated 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.

806-177 General Anatomy and Physiology 4 Credits

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.

806-179 Advanced Anatomy and Physiology 4 Credits

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.

806-186 Introduction to Biochemistry 4 Credits

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.

806-189 Basic Anatomy 3 Credits

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems.

806-194 Survey of Anatomy and Physiology 3 Credits

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.

806-197 Microbiology 4 Credits

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.

806-199 General, Organic and Biological Chemistry 4 Credits

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.

806-315 Applied Science 2 Credits

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.

806-333 Aviation Physics 2 Credits

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.

809-103 Think Critically and Creatively 3 Credits

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.

809-159 Abnormal Psychology 3 Credits

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.

809-166 Introduction to Ethics: Theory and Application 3 Credits

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.

809-172 Introduction to Diversity Studies 3 Credits

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.

GENERAL EDUCATION

809-174 Social Problems 3 Credits

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.

809-188 Developmental Psychology 3 Credits

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.

809-195 Economics 3 Credits

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.

809-196 Introduction to Sociology 3 Credits

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.

809-198 Introduction to Psychology 3 Credits

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.

809-199 Psychology of Human Relations 3 Credits

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.

809-352 Skills for Successful Employee 2 Credits

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.

Associate Degrees

These programs provide day and evening educational opportunities at the two-year associate degree level. The goal is to create an atmosphere of inquiry and learning in which students are guided in their pursuit of the understanding, appreciation, knowledge and skills essential to active and effective participation in their home, occupational and civic lives.

The specific objective is to prepare students for entry into or advancement in occupations which depend on technical information and on an understanding of the laws and principles of mathematics, science and technology relevant to modern design, production, distribution and service.

Associate degree programs require successful completion of a minimum of 64 semester credit hours of course work of which 32 must have been courses dealing with the major field of instruction. At least 25 percent of these semester hours must have been earned at the institution awarding the degree. The distribution of course credits may vary according to the type of degree program in which the student is enrolled.

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.

To become an apprentice, first select a trade or occupation and then get hired by an employer in your chosen field for apprenticeship. Application procedures take place with the appropriate committee. 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 www.dwd.wisconsin.gov/apprenticeship/individuals/htm or by calling (608) 266-3332. For information on BTC's apprenticeship programs, please contact (608) 743-4471.

Diploma and Certificate Programs

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.

Diploma programs provide more extensive training on a broader base in a more complex work area. This training leads to greater employment opportunity and advancement possibilities.

Diploma programs may be less than one year, one year or two years in length. Occupational skills course work 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 diploma program.

Career Prep

Career Prep, a state funded program administered through the Wisconsin Technical College System and Department of Workforce Development, wants students to find value in pursuing options to continue in post-secondary education and be successful in career and life-long learning.

The Blackhawk Career Prep Consortium is comprised of 13 public school districts in Rock and Green counties and works in coordination with the Rock County School-to-Work Partnership. The Career Prep Consortium engages in activities that support partnerships between employers, labor, educators and other community members to build a high quality educational system that is designed to focus students on a career path for the future. The consortium meets to determine implementation of activities and to jointly share information and resources.

The Career Prep initiative works closely with secondary students and educators to create a seamless transition between consortium high schools and Blackhawk Technical College. The transition is established through a variety of connecting activities, including:

Articulation Agreements

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.

Professional Development

Professional development for area educators from grades 7-12 is coordinated and provided through Career Prep and emphasize rigorous and relevant applied learning, while connecting to the Wisconsin Model Academic Standards. Opportunities include: Professional Development Summer Institute, Educator Externships and Joint Career Prep Partnership Projects that are supported by \$500 grants, workshops and other individualized training opportunities.

Visit us on our website at blackhawk.edu

ACCOUNTING

Associate Degree

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

809-166	Introduction to Ethics: Theory and Application	3
101-130	Accounting Information Systems ¹	3

Semester 3

101-113	Corporate Accounting I ¹	4
101-123	Income Tax Accounting ¹	4
101-125	Cost Accounting ¹	4
809-198	Introduction to Psychology	3
809-195	Economics	3

Semester 4

101-109	Corporate Accounting II ¹	3
101-131	Accounting Databases ³	2
101-137	Career Development in Accounting ²	1
101-124	Applied Income Tax ¹	2
	OR	
101-128	Supervised Occupational Exp. - Accounting ¹	3
809-196	Introduction to Sociology	3
103-178	Advanced Microsoft Excel ¹	2
999-999	Elective	3

TOTAL CREDITS 64

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Comm	3
804-123	Math w Business Apps	3
809-166	Intro to Ethics: Theory & App	3
809-195	Economics	3
809-196	Intro to Sociology	3
809-198	Intro to Psychology	3

Course Descriptions

101-102 Office Accounting 3 Credits

Office Accounting is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing worksheets, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

101-103 Accounting Orientation 2 Credits

This course is required for first semester students to provide the student a program overview, including expectations, grading standards, and graduation requirements. This course establishes the framework for the core Accounting courses, including the professional writing requirements and ethics analysis. In addition, the student will be provided information regarding student resources, advisors, and study skills.

101-104 Online Learning Strategies 3 Credits

The focus of this course is designed to prepare the student to transition from learning in a traditional classroom format to an online format. The student will apply communication technologies, participate in the development of a learning community, and discuss the differences between traditional learning activities and online activities.

	Course Name	Credits
Semester 1		
101-111	Accounting I ¹	4
103-116	Introduction to Microsoft Word	1
801-195	Written Communication	3
804-123	Math with Business Applications	3
101-105	Accounting Spreadsheets	3
Semester 2		
101-112	Accounting II ¹	4
101-135	Payroll Accounting ¹	2
101-136	Computerized Accounting ¹	1
801-196	Oral/Interpersonal Communication	3

101-105 Accounting Spreadsheets 3 Credits

This course provides hands-on experience in reporting financial data utilizing a popular spreadsheeting program. The course focuses on the application of spreadsheeting software in the Accounting profession. A working knowledge of Microsoft Windows and a basic knowledge of the accounting cycle are recommended.

101-109 Corporate Accounting II 3 Credits

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.

101-111 Accounting I 4 Credits

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.

101-112 Accounting II 4 Credits

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.

101-113 Corporate Accounting I 4 Credits

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.

101-117 Accounting Fundamentals 3 Credits

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.

101-123 Income Tax Accounting 4 Credits

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.

101-124 Applied Income Tax 2 Credits

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.

101-125 Cost Accounting 4 Credits

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.

101-128 Supv Occup Exp-Accounting 3 Credits

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.

101-130 Accounting Information Systems 3 Credits

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.

101-131 Accounting Databases 2 Credits

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.

101-132 Accounting Databases 2 Credits

Students learn Microsoft Access and then are divided into teams to apply database concepts in an accounting information system using Access. The system stresses the use of good internal controls. Emphasis is on teamwork and good design techniques. A working knowledge of Microsoft Windows is expected.

101-135 Payroll Accounting 2 Credits

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.

101-136 Computerized Accounting 1 Credit

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.

101-137 Career Dev in Accounting 1 Credit

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.

101-150 Certified Bookkeeper Review 3 Credits

This course is a preparatory course for the national American Institute of Professional Bookkeepers (AIPB) Certified Bookkeepers examination. Students will study adjusting entries, correction of accounting errors, payroll accounting, depreciation, inventory, and internal controls. Upon completion of this course, each student will have reviewed all six parts of the Certified Bookkeeper examination.

103-116 Intro to MS Word 1 Credit

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.

103-178 Advanced Excel 2 Credits

This course covers advanced features of Microsoft Excel such as what if analysis, input tables, spreadsheet consolidation, data tables and queries, object linking and imbedding, filters and pivot tables, macros, Visual Basic for Applications, and charting features.

ACCOUNTING ASSISTANT*Technical Diploma*

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.

	Course Name	Credits
Semester 1		
101-105	Accounting Spreadsheets ²	3
101-111	Accounting I ¹	4
103-116	Introduction to Microsoft Word	1
801-195	Written Communication	3
804-123	Math with Business Applications	3
Semester 2		
101-112	Accounting II ¹	4
101-130	Accounting Information Systems ¹	3
101-135	Payroll Accounting ¹	2
101-136	Computerized Accounting ¹	1
103-126	Introduction to Quickbooks	1
103-178	Advanced Microsoft Excel ¹	2
801-196	Oral/Interpersonal Communication	3
TOTAL CREDITS		30

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions**101-102 Office Accounting** 3 Credits

Office Accounting is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing worksheets, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

101-103 Accounting Orientation 2 Credits

This course is required for first semester students to provide the student a program overview, including expectations, grading standards, and graduation requirements. This course establishes the framework for the core Accounting courses, including the professional writing requirements and ethics analysis. In addition, the student will be provided information regarding student resources, advisors, and study skills.

101-104 Online Learning Strategies 3 Credits

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101-117 Accounting Fundamentals 3 Credits

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101-128 Supv Occup Exp-Accounting 3 Credits

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101-130 Accounting Information Systems 3 Credits

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.

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103-178 Advanced Excel 2 Credits

This course covers advanced features of Microsoft Excel such as what if analysis, input tables, spreadsheet consolidation, data tables and queries, object linking and imbedding, filters and pivot tables, macros, Visual Basic for Applications, and charting features.

ADMINISTRATIVE PROFESSIONAL*Associate Degree*

Blackhawk Technical College's Administrative Professional program is designed to prepare tomorrow's office managers, administrative professionals, and business professionals who want to position themselves to take on greater responsibilities and duties. You'll learn about managing complex office procedures, using business technology, planning meetings and events, coordinating projects, and more. Graduates will become valued administrative professionals equipped with technology, communication, and professional skills. Potential careers are available in diverse settings including business, industry, local government, healthcare, and service organizations. Why not start preparing for your future today at Blackhawk Technical College?

Program Outcomes:

- Apply organizational skills in managing the operations of an office, department, or team.
- Lead and manage office operations in business, government, or community-based organizations.
- Demonstrate effective workplace communications.
- Apply technology skills to business and administrative tasks.
- Perform routine administrative procedures.
- Manage administrative projects.
- Maintain internal and external relationships.
- Create accurate and high quality written documents which are free of grammar and punctuation errors.
- Plan, coordinate, and manage office projects.
- Plan meetings and events including working with customers, vendors, and others.
- Manage office documents including financial, human resources, and business communications.
- Demonstrate proficiency with office technologies including websites, Intranets, and business software applications.
- Select and use appropriate technology to meet customer needs, organizational goals or team objectives.

Graduates have found employment as:

- Administrative Professional
- Human Resources Assistant
- Administrative Coordinator
- Administrative Specialist
- Executive Assistant
- Office Manager/Supervisor
- Project Coordinator
- Support Professional

Administrative Professional

	Course Name	Credits
Semester 1		
106-143	Skillbuilding ¹	1
801-196	Oral/Interpersonal Communication	3
106-181	Office Professionalism	3
804-123	Math with Business Applications	3
106-116	Customer Service Essentials	3
809-198	Introduction to Psychology	3
	OR	
809-199	Psychology of Human Relations	3
Semester 2		
106-165	Business Presentations and Training	2
106-146	Word Processing Applications	3
801-195	Written Communication	3
106-159	Business Spreadsheets	3
106-153	Administrative Office Procedures ¹	3
809-172	Introduction to Diversity Studies	3
Semester 3		
106-156	Business Database	3
106-182	Office Project Management ¹	3
101-102	Office Accounting	3
106-133	Business Writing and Document Formatting ¹	3
106-183	Meeting and Event Planning ¹	3
Semester 4		
106-155	Publication Design and Production	3
106-158	Supervised Occupational Experience-Administrative Professional ³	1
106-160	Administrative Office Management ¹	3
809-166	Introduction to Ethics: Theory and Application	3
106-184	Web Technologies Office Management	3
809-196	Introduction to Sociology	3
TOTAL CREDITS		64

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-166	Introduction to Ethics: Theory and Application	3
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
809-199	Psychology of Human Relations	3

Course Descriptions

106-103 Medical Transcription 4 Credits

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.

106-104 Medical Specialities Transcrip 3 Credits

In this course, the student transcribes medically oriented reports, correspondence, and patient progress notes from various medical specialties using audio equipment and a word processing program. Format, grammar, spelling, punctuation, and proofreading are emphasized. Work is also done with English sound alike words.

106-105 Medical Editing and the EMR 3 Credits

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. Students will edit speech recognition files and learn to take meeting minutes through role playing scenarios.

106-107 Computerized Patient Billing 3 Credits

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.

106-108 Proofreading & Editing 1 Credit

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. Touch keyboarding and basic word processing skills are helpful.

106-109 Medical Office Administration 3 Credits

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.

106-110 Legal Office Professionalism 3 Credits

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 used. 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.

106-113 Health Insurance 3 Credits

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.

106-114 Healthcare Records Management 3 Credits

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.

106-116 Customer Service Essentials 3 Credits

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.

106-118 Pharmacology for MAS 2 Credits

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.

106-119 Med Minutes, Proofread, Editing 2 Credits

Students may learn to take meeting minutes in a variety of settings that will culminate in taking minutes during a

meeting at a medical facility. Students will also develop proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. This course includes editing skills for improving format, consistency, clarity, conciseness, and completeness.

106-120 Med Term Transcriptn/Coding 3 Credits

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.

106-124 Supv Occup Exp-Medical Office 1 Credit

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.

106-127 Healthcare Communication 3 Credits

The emphasis of this course is on grammar, spelling (English and medical words), punctuation, and formatting. Students will become familiar with a variety of medical reference materials available to them: books, journals, and computer sites. A component of the course will cover the use of email for sharing files and as a communication tool. Touch keyboarding and basic word processing skills are necessary.

106-128 Health Care Office Technologie 3 Credits

Health Care Office Technologies is an introductory course in the use of an office suite in a health care facility setting. It incorporates the use of word processing, spreadsheet, desktop publishing, and presentation software as an integrated application. Students will learn basic concepts associated with each component of the package and how to incorporate them in an office setting.

106-129 Business Filing 1 Credit

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.

106-130 Transcription Technology 2 Credits

Activities include transcribing documents, utilizing voice recognition software, and consulting reference materials. Correct business communications will be reinforced with emphases on proofreading, punctuation, grammar, and spelling.

106-131 Keyboarding Applications 3 Credits

Keyboarding Applications is designed to enhance keyboarding skills and to develop basic document formatting techniques while applying decision-making skills. Basic grammar and punctuation skills will be emphasized along with common word processing software.

106-132 Legal Transcription 3 Credits

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.

106-133 Business Writing and Document Formatting 3 Credits

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).

106-134 Legal Research & Writing 3 Credits

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.

106-135 Introduction to Basic Coding 1 Credit

This course will build upon skills learned in Health Care Insurance with emphasis on understanding the organization of the CPT and ICD coding books. Students will apply proper procedures in locating codes and use of coding symbols and conventions.

106-136 Patient Billing & Reimbursement 4 Credits

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.

106-137 Integrated Office Application 3 Credits

Students will learn to integrate their word processing skills with Microsoft Outlook, PowerPoint, Excel, and Access to produce complex documents. Internet and Intranet activities are integrated within some projects. Students will also develop employment portfolios and prepare employment-related documents.

106-138 Intro to Law & Legal Terminology 3 Credits

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.

106-139 Records Mgmt for Law Offices 3 Credits

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.

106-140 Keyboarding 1 Credit

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.

106-141 Legal Document Processing 3 Credits

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.

106-143 Skillbuilding 1 Credit

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.

106-145 Inform Technology Essentials 3 Credits

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.

106-146 Word Processing Applications 3 Credits

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.

106-151 Legal Office Procedures 4 Credits

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.

106-152 Legal Document Production 1 3 Credits

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.

106-153 Administrative Office Procedures 3 Credits

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.

106-154 Legal Document Production 2 3 Credits

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.

106-155 Publication Design and Production 3 Credits

Utilizing software such as Photoshop Elements and Adobe InDesign students will combine the technology of the personal computer, scanners, digital cameras, color printers, and desktop publishing software with specific design and layout concepts. Students will apply the proper use of typefaces, graphics, tables, text and user-defined boxes, horizontal and vertical rules to the design and layout of newsletters, brochures, and other documents. The pace of this course is based on touch keyboarding skill of 40 words per minute and basic computer skills.

106-156 Business Database 3 Credits

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.

106-157 Intro Office Admin Careers 1 Credit

This orientation course provides an introduction to BTC's Administrative Assistant program and its requirements, selected BTC and external resources, and requirements of a professional administrative assistant. Informational interviews at area companies and/or guest speakers will be part of this course. Students will also start the development of their employment portfolios. Whenever possible, this course should be taken during the student's first semester.

106-158 Supervised Occupational Experience-Administrative Professional 1 Credit

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.

106-159 Business Spreadsheets 3 Credits

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.

106-160 Administrative Office Management 3 Credits

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, travel and meeting planning, financial information, emerging technologies, and career development. Successful completion of all core courses in semesters 1, 2, and 3 of the Administrative Assistant Associate Degree program is expected.

106-163 Supv Occup Exp-Legal Admin 1 Credit

The student will obtain practical experience in a law office or a related field of work for a minimum of 72 hours during the last semester of training in the program. As new techniques and duties are acquired, the student will gain practical experience in the areas of reception, filing, transcription, office management, and any other duties normally performed by a legal secretary of the Affiliating Office.

106-164 Specialized Software Apps 3 Credits

Intended to introduce students to advanced applications used by office professionals, this software-intensive course provides an introduction to programs such as Microsoft Publisher, Microsoft FrontPage, 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.

106-165 Business Presentations and Training 2 Credits

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.

106-175 Legal Office Communications I 3 Credits

Course includes grammar and usage, punctuation, capitalization, correct use of numbers, possessives, editing and proofreading skills, and using these skills in applied writing for a legal office. This course includes job finding skills such as resume writing, cover letters, interview follow-up letters, and interviewing skills. Also included will be a unit on using email in a legal office as well as the development of basic composition skills for a law office.

106-176 Legal Office Applications 3 Credits

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.

106-177 Legal Office Case Management 3 Credits

This course is a capstone course and intended for the student's final semester. It will include case studies that will take a student from the beginning of a client's case through a variety of the procedures completed on a daily basis in a legal office.

106-180 Legal Term & Court Structure 3 Credits

This course is designed to introduce the student to basic legal vocabulary. The fields of law covered include criminal, torts, personal property, agency, wills and estates, and real property. The class also covers terminology relating to practice and procedure in the courts.

106-181 Office Professionalism 3 Credits

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."

106-182 Office Project Management 3 Credits

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.

106-183 Meeting and Event Planning 3 Credits

This course is designed to teach students to work effectively with different cultures, determine meeting attendees, manage a meeting budget, preparation of minutes, and coordination of meeting resources. Additionally, students will develop travel profiles, complete trip follow-up and explore compliance of international requirements. Touch keyboarding and basic word processing skills are necessary.

106-184 Web Technologies Office Management 3 Credits

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.

106-185 Medical Document Formatting 3 Credits

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.

101-102 Office Accounting 3 Credits

Office Accounting is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing worksheets, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

ADVANCED DENTAL ASSISTANT

Technical Diploma

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.

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

	Course Name	Credits
Semester 1		
508-101	Dental Health Safety	1
508-304	Dental & General Anatomy	2
508-113	Dental Materials ²	2
508-103	Dental Radiography ²	2
508-302	Dental Chairside ²	5
508-306	Dental Assistant Clinical ²	3
508-307	Dental Assistant Professionalism	1
Semester 2		
508-309	Dental Laboratory Procedures ¹	4
508-310	Dental Radiography - Advanced ¹	1
508-311	Dental Assistant Clinical Advanced ¹	2
508-120	Dental Office Management ¹	2
508-308	Dental Chairside Advanced ¹	5
801-390	Communication for the Health Professions ¹	2
TOTAL CREDITS		32

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

508-101 Dental Health Safety 1 Credit

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.

508-103 Dental Radiography 2 Credits

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 bite wing radiographs on a peer, role-play patient.

508-113 Dental Materials 2 Credits

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.

Advanced Dental Assistant

508-120 Dental Office Management 2 Credits

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.

508-302 Dental Chairside 5 Credits

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.

508-304 Dental & General Anatomy 2 Credits

Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients.

508-306 Dental Assistant Clinical 3 Credits

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.

508-307 Dental Assistant Professionalism 1 Credit

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.

508-308 Dental Chairside Advanced 5 Credits

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 prosthodontics. Students will also develop the ability to assist with sealants, perform coronal polishing, and apply topical fluoride and topical anesthetics.

508-309 Dental Laboratory Procedures 4 Credits

Prepares Dental Assistant students to produce alginate impressions and fabricate diagnostic models, oral appliances, temporary restorations, and custom trays. Students also polish oral appliances.

508-310 Dental Radiography - Advanced 1 Credit

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.

508-311 Dental Assistant Clinical Advanced 2 Credits

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.

ADVANCED EMT

Technical Diploma

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.

531-111 Advanced EMT/Int-Tech 4 Credits

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.

AGRIBUSINESS SPECIALIST

Technical Diploma

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 agritourism. 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

	Course Name	Credits
Semester 1		
006-101	Contemporary Issues in Sustainability	1
	OR	
804-107	College Mathematics	3
801-196	Oral/Interpersonal Communication	3
006-169	Career Develop in Agriculture	2
006-116	Introduction to Soils	3
006-180	Animal Science and Livestock Management	3
006-102	Emerging Agriculture Technologies	2
804-123	Math with Business Applications	3
Semester 2		
006-106	Agribusiness Occupational Experience	1
006-104	Special Topics in Agriculture	1
006-103	Agricultural Commodity Marketing	1
006-163	Agribusiness Management	3
006-108	Commercial Drivers Training	1
006-107	Pest Management:Applicator Training	3
006-160	Plant Science and Crop Science	3
006-105	Nutrient Management	3
TOTAL CREDITS		33

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3

Course Descriptions

006-101 Contemporary Issues in Sustainability 1 Credit

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.

006-102 Emerging Agriculture Technologies 2 Credits

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.

006-103 Agricultural Commodity Marketing 1 Credit

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.

006-104 Special Topics in Agriculture 1 Credit

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.

006-105 Nutrient Management 3 Credits

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.

006-106 Agribusiness Occupational Experience 1 Credit

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.

006-107 Pest Management: Applicator Training 3 Credits

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).

006-108 Commercial Drivers Training 1 Credit

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.

006-116 Introduction to Soils 3 Credits

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.

006-160 Plant Science and Crop Science 3 Credits

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.

006-163 Agribusiness Management 3 Credits

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.

006-169 Career Develop in Agriculture 2 Credits

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.

006-180 Animal Science/Livestock Mgt 3 Credits

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

AIR CONDITIONING, HEATING & REFRIGERATION TECHNOLOGY

Associate Degree

HVAC/R is one of the fastest growing industries in the world. 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 associate degree program, students may wish to pursue additional training in heating, ventilation, and air conditioning engineering. Credit for many of the associate degree courses may be transferred to a four-year institution. The student needs to confirm which courses are transferable with the accepting college.

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

Programs

	Course Name	Credits
Semester 1		
601-110	Air Conditioning Fundamentals ²	3
601-125	Computerized HVAC/R Design ¹¹	3
801-196	Oral/Interpersonal Communication	3
601-115	Electrical Fundamentals ¹¹	3
804-107	College Mathematics	3
Semester 2		
601-120	Refrigeration Fundamentals ¹¹¹	3
601-130	Heating Systems ³	3
601-135	Motors and Motor Controls ³	3
801-195	Written Communication	3
809-196	Introduction to Sociology	3
Semester 3		
601-140	Control Circuit Applications ³	3
601-150	Air Conditioning Applications ³	3
601-155	Refrigeration Applications ³	3
809-195	Economics	3
809-198	Introduction to Psychology	3
601-180	Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Installation ³	3
Semester 4		
601-145	Heating Systems Applications ³	3
601-160	Hydronic Systems ³	3
601-165	Electronic Energy Management Systems ³	3
601-175	Service, +C1869 Troubleshooting Heating, Ventilation, Air Conditioning and Refrigeration Equipment ³	3
809-172	Introduction to Diversity Studies	3
TOTAL CREDITS		63

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-107	College Mathematics	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

601-110 Air Conditioning Fundamentals 3 Credits

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.

601-115 Electrical Fundamentals 3 Credits

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.

601-120 Refrigeration Fundamentals 3 Credits

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.

601-125 Computerized Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Design 3 Credits

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.

601-130 Heating Systems 3 Credits

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.

601-135 Motors and Motor Controls 3 Credits

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.

601-140 Control Circuit Applications 3 Credits

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.

601-145 Heating Systems Applications 3 Credits

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.

601-150 Air Conditioning Applications 3 Credits

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.

601-155 Refrigeration Applications 3 Credits

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.

601-160 Hydronic Systems 3 Credits

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.

601-165 Electronic Energy Management Systems 3 Credits

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.

601-170 HVAC/R Service Internship 3 Credits

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.

601-175 Servicing, +C1869 Troubleshooting Heating, Ventilation, Air Conditioning and Refrigeration Equipment 3 Credits

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.

601-180 Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R) Installation 3 Credits

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.

AUTOMOTIVE TECHNICIAN

Technical Diploma

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

Automotive Technician

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

	Course Name	Credits
Semester 1		
404-338	Service Fundamentals	2
404-343	Automotive Machine Shop	1
404-345	Brake Service	4
404-346	Steering & Suspension Service	4
404-348	Service Simulation	2
804-304	Mathematic Fundamentals	2
Semester 2		
404-339	Engine Service	4
404-342	Heating & Air Conditioning Service	4
404-349	Service Management	1
801-311	Communication	2
404-347	Drive Train Service I	3

Semester 3

404-350	ASE Certification Review	1
404-351	Electronic Engine Control Fundamentals	4
404-353	Emission Control Service and Certification	1
404-356	Electrical Service	4
404-357	Electronic Engine Control Diagnosis	2
806-315	Applied Science	2

Semester 4

404-352	Computerized Fuel Systems Service ¹	2
404-354	Engine Performance Testing ¹	4
404-355	Drive Train/Transaxle Service II ¹	2
404-358	Service Internship ¹	2
450-315	Customer Service Fundamentals	2

TOTAL CREDITS **55**

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

806-315	Applied Science	2
801-311	Communication	2
804-304	Mathematic Fundamentals	2

Course Descriptions

404-338 Service Fundamentals 2 Credits

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.

404-339 Engine Service 4 Credits

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.

404-341 Engine Performance Test I 3 Credits

The student is introduced to techniques of diagnosis and analysis of the electrical and fuel systems. Mechanical engine testing and the basic operation of ignition systems is covered in this course.

404-342 Heating & Air Conditioning Service 4 Credits

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.

404-343 Automotive Machine Shop 1 Credit

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 gage, drill press, brake rotor and drum lathe, and other measuring instruments. Both English and metric systems are covered in this course.

Automotive Technician

404-344 Electrical Service I 2 Credits

This course is designed to introduce the student to the fundamentals of electricity. Emphasis is placed on diagnosis and repair of battery starting and charging systems.

404-345 Brake Service 4 Credits

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.

404-346 Steering & Suspension Service 4 Credits

The student is introduced to basic wheel alignment, suspension systems, and steering systems. Computerized four-wheel alignment is a high priority in this course.

404-347 Drive Train Service I 3 Credits

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.

404-348 Service Simulation 2 Credits

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.

404-349 Service Management 1 Credit

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.

404-350 ASE Certification Review 1 Credit

This course is designed to prepare the student for ASE certification.

404-351 Electronic Engine Control Fundamentals 4 Credits

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.

404-352 Computerized Fuel Systems Service 2 Credits

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.

404-353 Emission Control Service and Certification 1 Credit

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.

404-354 Engine Performance Testing 4 Credits

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.

404-355 Drive Train/Transaxle Service II 2 Credits

This course is designed to introduce the student to automatic transmission and transaxle service.

404-356 Electrical Service 4 Credits

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.

404-357 Electronic Engine Control Diagnosis 2 Credits

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.

404-358 Service Internship 2 Credits

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.

BUSINESS MANAGEMENT

Associate Degree

The Associate of Applied Science degree in Business-Management prepares students for entry-level careers in business related occupations. The training provides broad and foundational business skills in managing business operations, including marketing, finance, personnel, 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, psychology, social sciences, and ethics. Elective courses provide students with an opportunity to customize a degree to their career interests.

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

	Course Name	Credits
Semester 1		
102-148	Introduction to Business and Management	3
103-106	Introduction to Microsoft Office Suites	3
104-102	Marketing Principles	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
Semester 2		
102-115	Management Principles ³	3
104-104	Selling Principles	3
116-193	Human Resource Management	3
809-166	Intro. to Ethics: Theory and Application	3
804-123	Math with Business Applications	3
102-109	Business Careers Planning and Business Communication ²	3
Semester 3		
101-117	Accounting Fundamentals ¹	3
102-120	Small Business Management ¹	3
102-122	Business Sustainability Planning	3
102-160	Business Law	3
809-195	Economics	3
809-198	Introduction to Psychology	3
Semester 4		
102-130	Business Finance and Budget Management ¹	3
102-150	Global Business Fundamentals ¹	3
102-127	Business Management Internship ³	3
102-121	Customer Service Management ¹	3
	OR	
102-128	Business Plan and Entrepreneurship ¹	3
809-172	Introduction to Diversity Studies	3
TOTAL CREDITS		66

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-166	Intro. to Ethics: Theory and Application	3
809-172	Intro. to Diversity Studies	3
809-195	Economics	3
809-198	Introduction to Psychology	3

Course Descriptions

102-100 Intro to Entrepreneurial Career 3 Credits

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.

102-109 Business Careers&Communication 3 Credits

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.

102-110 Business Careers Planning 1 Credits

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.

102-115 Management Principles 3 Credits

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.

102-120 Small Business Management 3 Credits

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.

102-121 Customer Service Management 3 Credits

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.

102-122 Business Sustainability Planning 3 Credits

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.

102-125 Management Internship 2 Credits

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.

102-126 Bus. Plan & Entrepreneurship 2 Credits

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.

102-127 Business Management Internship 3 Credits

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.

102-128 Business Plan and Entrepreneurship 3 Credits

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.

102-130 Business Finance and Budget Management 3 Credits

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.

102-135 Lodging Management 3 Credits

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.

102-136 Hotel Operations Management 3 Credits

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.

102-137 Business Communications 1 Credit

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.

102-139 Culinary Business Admin 3 Credits

This course introduces the student to basic bookkeeping, and management reporting. The student is taught how to establish and maintain a basic bookkeeping system.

102-148 Introduction to Business and Management 3 Credits

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.

102-150 Global Business Fundamentals 3 Credits

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.

102-155 Intro to Project Management 3 Credits

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.

102-156 Project Leadership & Comm 3 Credits

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.

102-157 Managing Projects 2 Credits

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.

102-158 Project Management Capstone 3 Credits

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.

102-160 Business Law 3 Credits

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.

102-406 Intro to Project Management 4 Credits

This course gives an overview of project management principles and covers the fundamental knowledge and skills needed to improve the outcome of any project.

102-414 Intro to Project Management 4 Credits

This course gives an overview of project management principles and covers the fundamental knowledge and skills needed to improve the outcome of any project.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

104-102 Marketing Principles 3 Credits

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.

104-104 Selling Principles 3 Credits

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.

101-117 Accounting Fundamentals 3 Credits

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.

116-193 Human Resource Mgmt

3 Credits

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.

CNC TECHNICIAN

Technical Diploma

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 students 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.

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

	Course Name	Credits
Semester 1		
421-385	Blueprint Reading ²	2
444-300	Shop Computing ²	2
444-301	Metrology ²	2
444-302	Semi-Precision Machining ²	2
444-303	Turning Fundamentals ²	2
444-305	Milling Fundamentals ²	2
804-306	Shop Mathematics I	2
Semester 2		
444-304	Geometric Dimensioning and Tolerancing (GD&T) Interpretations ³	1
444-306	Turning Applications ³	2
444-308	Milling Applications ³	2
444-309	Computer Numerical Control (CNC) Fundamentals ³	2
444-310	Grinding and Gear Techniques ³	2
444-313	Tooling and Workholding ³	2
801-196	Oral/Interpersonal Communication	3
804-308	Shop Mathematics II	2
Semester 3		
444-307	Manufacturing Support Systems ³	1
444-311	Computer Numerical Control (CNC) Turning Operations ³	2
444-312	Computer Numerical Control (CNC) Turning-Operations and Programming 1 ³	2
444-314	Coordinate Measuring Machines (CMM) Techniques ³	2
444-315	Computer Numerical Control (CNC) Milling- Operations ³	2
444-321	Basic Computer Aided Design (CAD) / Computer Assisted Manufacturing (CAM) ³	2
806-118	Metal Science	3
Semester 4		
444-316	Computer Numerical Control (CNC) Milling-Operations and Programming 1 ³	2
444-318	Computer Numerical Control (CNC) Milling-Operations and Programming 2 ³	2
444-319	Computer Numerical Control (CNC) Turning-Operations and Programming 2 ³	2
444-320	Computer Numerical Control (CNC) Milling-Operations and Programming 3 ³	2
444-324	Intermediate Computer Aided Design (CAD) / Computer Assisted Manuf. (CAM) ³	2
444-325	Computer Numerical Control (CNC) Technician Internship ³	1
801-195	Written Communication	3

TOTAL CREDITS 58

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
806-118	Metal Science	3
804-306	Shop Mathematics I	2
801-196	Oral/Interpersonal Communication	3
804-308	Shop Mathematics II	2

Course Descriptions

444-300 Shop Computing 2 Credits

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.

444-301 Metrology 2 Credits

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.

444-302 Semi-Precision Machining 2 Credits

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.

444-303 Turning Fundamentals 2 Credits

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.

444-304 Geometric Dimensioning and Tolerancing (GD&T) Interpretations 1 Credits

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.

444-305 Milling Fundamentals 2 Credits

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.

444-306 Turning Applications 2 Credits

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.

444-307 Manufacturing Support Systems 1 Credit

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.

444-308 Milling Applications 2 Credits

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.

444-309 Computer Numerical Control (CNC) Fundamentals 2 Credits

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.

44-310 Grinding and Gear Techniques 2 Credits

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.

444-311 Computer Numerical Control (CNC) Turning Operations 2 Credits

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.

444-312 Computer Numerical Control (CNC) Turning - Operations & Programming 1 2 Credits

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.

444-313 Tooling and Workholding 2 Credits

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.

444-314 Coordinate Measuring Machines (CMM) Techniques 2 Credits

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.

444-315 Computer Numerical Control (CNC) Milling- Operations 2 Credits

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.

444-316 Computer Numerical Control (CNC) Milling-Operations and Programming 1 2 Credits

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.

**444-318 Computer Numerical Control (CNC)
Milling-Operations and Programming 2 2 Credits**

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.

**444-319 Computer Numerical Control (CNC)
Turning-Operations and Programming 2 2 Credits**

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.

**444-320 Computer Numerical Control (CNC) Milling-
Operations and Programming 3 2 Credits**

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.

**444-321 Basic Computer Aided Design (CAD)/
Computer Asst Manufacturing (CAM) 2 Credits**

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.

**444-324 Intermediate Computer Aided Design (CAD)/
Computer Asst. Manufacturing (CAM) 2 Credits**

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.

**444-325 Computer Numerical Control (CNC)
Technician Internship 1 Credit**

Students will have three options. Student may choose to find a company to do an externship with, do an externship at the company they are already working at, or perform the externship at the machine shop at their school. In all cases the purpose of the externship is to provide an opportunity for the student to take what they know and apply it. The

student will be given minimal assistance from the instructor so that they learn to work on their own. This is a course to prepare the student the type of environment they will encounter on the job.

421-385 Blueprint Reading 2 Credits

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.

COMPUTER SERVICE TECHNICIAN

Technical Diploma

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 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

	Course Name	Credits
Semester 1		
631-100	Microcomputer Fundamentals	3
631-101	PC Software Fundamentals ²	3
631-106	IT Customer Service Fundamentals	3
631-102	PC Peripherals and Troubleshooting ²	3
631-111	PC Hardware Assessment ²	1
801-195	Written Communication	3
Semester 2		
631-104	Cyber Ethics	3
631-115	Network Fundamentals ¹	3
631-112	PC Hardware Interfacing ³	1
631-122	Service Support Techniques ¹	1
631-116	Troubleshooting Shared Network Resources ²	3
804-107	College Mathematics	3
631-118	Green IT	3
TOTAL CREDITS		33

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
804-107	College Mathematics	3

Course Descriptions

631-100 Microcomputer Fundamentals 3 Credits

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.

631-101 PC Software Fundamentals 3 Credits

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.

631-102 PC Peripherals and Troubleshooting 3 Credits

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.

631-106 IT Customer Service Fundamentals 3 Credits

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.

631-111 PC Hardware Assessment 1 Credit

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 be expected to 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.

631-104 Cyber Ethics 3 Credits

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.

631-112 PC Hardware Interfacing 1 Credit

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.

Computer Service Technician

631-115 Network Fundamentals 3 Credits

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.

631-116 Troubleshooting Shared Network Resources 3 Credits

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.

631-118 Green IT 3 Credits

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.

631-122 Service Support Techniques 1 Credit

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.

CRIMINAL JUSTICE- LAW ENFORCEMENT

Technical Diploma

The Criminal Justice - Law Enforcement program is an accredited two-year associate degree program that prepares students for positions in a variety of law enforcement careers at the state, local, and federal levels, as well as in the field of private security. Students study the law enforcement field plus physical and behavioral sciences to meet the demands of the police profession, including criminal investigation, traffic law, patrol procedures, and scientific crime laboratory.

Program Outcomes:

- Think critically
- Manage emergencies
- Communicate effectively
- Demonstrate professionalism
- Conduct investigations
- Interact with others
- Reference and utilize resources in decision making

Graduates have found employment as:

- Police Officer
- Correctional Officer
- Private Security
- Conservation Warden
- Probation/Parole Agent
- Police Dispatcher
- Juvenile Detention Worker

	Course Name	
Credits		
Semester 1		
504-922	The Criminal Justice System	3
504-923	Criminal Procedure	3
504-926	Juvenile Justice System	3
801-196	Oral/Interpersonal Communication	3
809-198	Introduction to Psychology	3
Semester 2		
504-924	Substantive Criminal Law	3
504-925	Interview and Interrogation	3
801-195	Written Communication	3
809-188	Developmental Psychology	3
809-196	Introduction to Sociology	3
Semester 3		
504-910	Introduction to Corrections	3
	OR	
504-929	Policing & Crime Prevention	3
	OR	
504-939	Juvenile Offenders and Family	3
504-911	Peacekeeping in a Diverse Society	3
504-921	Drugs, Society, Criminal Justice	3
504-927	Introductory Report Writing ¹	3
809-159	Abnormal Psychology	3
504-940	Juvenile Residential Services	3
	OR	
999-999	Elective Course	3
Semester 3		
504-928	Criminal Investigation Strategies	3
504-938	Patrol Procedures	3
	OR	
504-941	Community Corrections ¹	3
504-913	Advance Reporting Writing- Law Enforcement ¹	3
	OR	
504-914	Advanced Report Writing in Corrections ¹	3
806-110	Forensic Science (Criminalistics)	3

Criminal Justice-Law Enforcement

504-942	Juvenile Justice Internship OR	3
999-999	Elective Course	3
TOTAL CREDITS		63

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Comm	3
806-110	Forensic Sci (Criminalistics)	3
809-159	Abnormal Psychology	3
809-188	Developmental Psychology	3
809-196	Intro to Sociology	3
809-198	Intro to Psychology	3

Course Descriptions

504-900 Intro to Criminal Justice 3 Credits

In this course learners will distinguish between the roles and functions of courts with jurisdiction in Wisconsin, differentiate between the roles and functions of federal; state and local law enforcement agencies; apply professional principles as a law enforcement officer; determine modern police functions and policies from an historical perspective; identify the role of law enforcement officers in American society; identify the law enforcement policies required by Wisconsin statutes; defend the importance of written agency policies, distinguish between "ministerial" and "discretionary" duties, utilize a decision-making model; identify the characteristics of a good decision maker; describe how professionalism, ethics, and moral standards relate to a law enforcement career; practice a code of behavior that embodies the principles and obligations of the law enforcement code of ethics; incorporate ethical decision making strategies; describe how decisions are made; enhance an officer's critical thinking and police problem solving skills; and apply principles of critical thinking, decision-making, and problem solving.

504-901 Constitutional Law 3 Credits

In this course, learners will diagram the structure of the criminal justice system, identify situations where constitutional rules are applicable, identify situations where an officer may use reasonable suspicion to contact a subject, identify the elements of a lawful arrest, identify search-related activities where the 4th amendment is not applicable, identify the requirements that pertain to search warrants, analyze situations where an officer may conduct a search without a warrant, compare the requirements for conducting routine searches with those for searching disabled persons and strip searches, identify the requirements of the laws governing confessions and statements, and analyze the various requirements that evidence must meet before it can be admitted in court.

504-902 Criminal Law 3 Credits

In this course, learners will identify basic concepts of criminal law; analyze facts, circumstances, and situations and determine which, if any, crimes against persons have been committed; analyze facts, circumstances, and situations and determine which, if any, crimes against property have been

committed; and analyze facts, circumstances, and situations and determine which, if any, crimes involving drugs, alcohol or other criminal activity have been committed.

504-903 Professional Communications 3 Credits

In this course, the learner will apply knowledge of the communication process, apply communication techniques, integrate verbal and physical intervention skills, develop strategies to obtain information in a variety of situations, differentiate between an interview and an interrogation, and analyze information for consideration as corroborative evidence.

504-904 Juvenile Law 3 Credits

In this course, the learner will describe the juvenile justice system, describe the handling of cases of children in need of protection or services, describe the handling of cases of juveniles in need of protection or services or alleged to be delinquent, identify constitutional law issues that are relevant to juveniles, analyze the role of law enforcement in responding to child maltreatment, explain the issues involved in investigating incidents of child victimization, intervene and apply appropriate investigative strategies, describe the roles of other agencies in child maltreatment cases, and recognize the unique investigative issues for missing children.

504-905 Report Writing 3 Credits

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.

504-906 Criminal Investigation Theory 3 Credits

In this course, the learner will describe the role evidence plays in criminal investigations and prosecutions; apply the steps for processing crime scenes; apply appropriate strategies to locate, handle, and package evidentiary items; document the crime scene; recognize the unique investigative issues for crimes against life; apply appropriate strategies to secure the scene, collect and preserve evidence, and investigate a death; recognize the dynamics of victimization; apply knowledge of the definitions and responsibilities for law enforcement; analyze the role of law enforcement in responding to domestic abuse; intervene and apply appropriate investigative strategies; respond to an officer-involved domestic violence incident; analyze the role of law enforcement in responding to sexual abuse; demonstrate investigative techniques in a simulated sexual assault case; and identify other resources that can assist in sexual assault cases.

504-907 Community Policing Strategies 3 Credits

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

504-908 Traffic Theory 3 Credits

In this course, the learner will enforce Wisconsin traffic laws; detect traffic violations; issue traffic citations, ranging from warnings to arrest; direct traffic; identify responsibilities of a first responding officer, following the steps of the Incident Response model; manage the response to a scene; take necessary steps to enable effective follow-up as needed; conduct an initial investigation at a crash scene; identify the mechanics of measuring and documenting traffic crash scenes; complete the Wisconsin Motor Vehicle Accident Report; record the crash scene using photography; take appropriate enforcement action based on information gathered; and recognize and interpret indicators of impaired driving.

504-909 Organization&Mgt Criminal Just 3 Credits

Using an exploratory and interactive structure, this introduction to criminal justice supervision course covers all the latest supervisory concepts and practices with an emphasis on character, teamwork, problem solving, and conflict resolution. It is also a study of coordination and management of resources in the field of law enforcement. The basic guidelines of administrative policy and unification of personal and organizational goals are also explored and applied.

504-910 Introduction to Corrections 3 Credits

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.

504-911 Peacekeeping in a Diverse Soc 3 Credits

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.

504-912 Intro to Probation & Parole 3 Credits

This course will provide the student with an overview and description of the probation and parole system and assist the student in developing the skills for applying professional knowledge and current concepts in practice.

504-913 Adv Report Writing-Law Enforce 3 Credits

This course is designed to enhance and build upon the student's writing skills developed in Introductory Report Writing which is a prerequisite for this course. Practice and practical application in writing reports that are direct, grammatically correct, and contain the appropriate content are the foundation of this course. Reports generated in this course will focus on common incidents law enforcement officers in the field are faced with as well as more in-depth investigations carried out by officers.

504-914 Adv Rpt Writing-Corrections 3 Credits

This course is designed to enhance and build upon the student's writing skills developed in Introductory Report Writing which is a prerequisite for this course. Practice and practical application in writing reports that are direct, grammatically correct, and contain the appropriate content are the foundation of this course. Reports generated in this course will focus on common incidents related to various corrections environments.

504-915 Issues in Criminal Justice 3 Credits

This course is designed to review the various functions and current issues related to various components of the criminal justice system.

504-916 Criminal Justice Internship 3 Credits

This course involves professionally planned and supervised program of experience in one of several criminal justice related occupational areas.

504-917 Internship 2 3 Credits

This elective course involves criminal justice students providing basic security service on campus to assist in providing a safe campus environment.

504-918 Career Explore Criminal Justice 1 Credit

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.

504-919 Fitness,Nutrition Criminal Justice 1 Credit

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.

504-920 Emergency Dispatch 3 Credits

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.

504-921 Drugs,Society,Criminal Justice 3 Credits

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.

504-922 The Criminal Justice System 3 Credits

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.

504-923 Criminal Procedure 3 Credits

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.

504-924 Substantive Criminal Law 3 Credits

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.

504-925 Interview and Interrogation 3 Credits

This course familiarizes the student with the various components of everyday professional communication as well as effective interviewing of victims, witnesses, and suspects.

504-926 Juvenile Justice System 3 Credits

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.

504-927 Introductory Report Writing 3 Credits

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.

504-928 Criminal Invest Strategies 3 Credits

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.

504-929 Policing and Crime Prevention 3 Credits

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.

Criminal Justice-Law Enforcement

504-930 Patrol Procedures 3 Credits

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.

504-931 Juvenile Offenders and Family 3 Credits

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.

504-932 Juvenile Residential Services 3 Credits

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.

504-933 Community Corrections 3 Credits

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.

504-934 Juvenile Justice Internship 3 Credits

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.

504-938 Patrol Procedures 3 Credits

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.

504-939 Juvenile Offenders and Family 3 Credits

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.

504-940 Juvenile Residential Services 3 Credits

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.

504-941 Community Corrections 3 Credits

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.

504-942 Juvenile Justice Internship 3 Credits

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.

CULINARY ARTS

Associate Degree

The Culinary Arts program combines elements of artistry, science and business skills to prepare you for an exciting career in Food Service. You'll 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
- Lead Cook
- Kitchen Supervisor

	Course Name	Credits
Semester 1		
804-123	Math with Business Applications	3
316-103	Food Service Industry and Menu Design ¹¹	2
316-104	Food Quantities and Measures	1
316-108	Food Science I ¹¹	3
316-147	Food Service Sanitation	2
801-195	Written Communication	3
316-109	Quantity Production of Soups, Salads, and Dressings ¹¹	4
Semester 2		
316-114	Quantity Production of Entrees, Sauces, Vegetables ¹	4
809-198	Introduction to Psychology	3
103-106	Introduction to Microsoft Office Suite	3
801-196	Oral/Interpersonal Communication	3
316-149	Culinary Supervision	3
316-115	Nutrition ¹	2
Semester 3		
316-119	Baking For Chefs ¹	3
316-125	Beverage Management	1
316-164	Advanced Cuisine ¹¹¹	2
809-195	Economics	3
809-196	Introduction to Sociology	3
809-172	Introduction to Diversity Studies	3
531-102	Emergency Procedure-Work Place	1
316-107	Culinary Externship ¹¹¹	1
Semester 4		
316-160	Gourmet Stocks and Sauces ¹¹¹	3
102-139	Culinary Business Administration ¹	3
316-142	Ice Sculpturing and Decorative Food Display ¹¹¹	2
316-159	Food Purchasing, Inventory and Cost Control ¹¹¹	2
316-131	Management of Short Order Service ²	2
316-136	Catering, Special Events and Contract Food Service ¹	2
316-165	Gourmet Foods ¹¹¹	3
TOTAL CREDITS		70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

316-103 Food Service Industry and Menu Design 2 Credits

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.

316-104 Food Quantities and Measures 1 Credit

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.

316-107 Culinary Externship 1 Credit

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.

316-108 Food Science I 3 Credits

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.

316-109 Quantity Production of Soups, Salads, and Dressings 4 Credits

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.

316-114 Quantity Production of Entrees, Sauces, Vegetables 4 Credits

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".

316-115 Nutrition 2 Credits

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 effect to the human body.

316-119 Baking For Chefs 3 Credits

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.

316-125 Beverage Management 1 Credit

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.

316-131 Management of Short Order Service 2 Credits

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.

316-136 Catering, Special Events and Contract Food Service 2 Credits

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.

316-142 Ice Sculpturing and Decorative Food Display 2 Credits

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.

316-147 Food Service Sanitation 2 Credits

This course includes a complete study of food service sanitation, safe food handling practices, high standards of personal health, 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.

316-149 Culinary Supervision 3 Credits

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.

316-159 Food Purchasing, Inventory and Cost Control 2 Credits

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.

316-160 Gourmet Stocks and Sauces 3 Credits

A concise study of mother sauces and their derivatives along with sauce history, making stocks for the specialty kitchen, and dessert sauces are covered.

316-164 Advanced Cuisine 2 Credits

Advanced 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.

316-165 Gourmet Foods 3 Credits

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.

316-166 Specialized Foods 3 Credits

Specialized foods involves history, culture, traditions, and cooking. Research of food background and hands-on experience are stressed. Term papers and recipe accumulation are also activities in this elective class.

316-409 Food Sanitation-Initial Cert. 1 Credit

Food Sanitation-Initial Qualifier prepares students to be safe food handlers and to take the Serve Safe exam to receive the credential to work in the industry.

103-106 Intro to Microsoft Office Suites 3 Credits

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.

531-102 Emergency Procedure-Work Place 1 Credit

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.

102-139 Culinary Business Administration 3 Credits

This course introduces the student to basic bookkeeping, and management reporting. The student is taught how to establish and maintain a basic bookkeeping system.

DIAGNOSTIC MEDICAL SONOGRAPHY & VASCULAR

Associate Degree

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 sonographer 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

Course Name	Credits
<i>Courses taken before semester 1</i>	
526-130 Intro to Diagnostic Medical Sonography ¹¹	2
526-132 DMS Clinical 1 ²	2
806-139 Survey Of Physics	3
526-146 DMS Cross Sectional Anatomy ¹¹	2

Semester 1

526-131	DMS General Procedures 1 ¹¹¹	4
526-134	DMS Clinical 2 ¹¹¹	2
526-136	DMS Physics 1 ¹¹¹	3
526-156	Pathophysiology ³	3
806-177	General Anatomy and Physiology	4

Semester 2

526-133	DMS General Procedures 2 ¹¹¹	4
526-137	DMS Clinical 3 ³	2
526-139	DMS Physics 2 Instrumentation ³	2
806-179	Advanced Anatomy and Physiology	4
801-195	Written Communication	3

Summer between year 1 and year 2

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

Semester 3

526-138	DMS General Procedures 4 ¹¹¹	4
526-142	DMS Clinical 5 ¹¹¹	2
526-141	DMS Vascular Procedures 1 ¹¹¹	4
809-196	Introduction to Sociology	3

Semester 4

526-143	DMS Vascular Procedures 2 ³	3
526-144	DMS Clinical 6 ¹¹¹	2
809-198	Introduction to Psychology	3
526-145	DMS Registry Review ¹¹¹	2

TOTAL CREDITS 70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
806-139	Survey Of Physics	3
806-177	General Anatomy and Physiology	4
806-179	Advanced Anatomy and Physiology	4
809-196	Intro to Sociology	3
809-198	Intro to Psychology	3
801-196	Oral/Interpersonal Communication	3

Course Descriptions

526-101 Introduction to Radiography 3 Credits

An overview of the educational concepts associated with the profession of medical radiography and its role in healthcare delivery. Topics include general radiography and specialized medical imaging techniques, basic radiation protection, medical terminology, and the legal and ethical considerations of working in the profession of medical radiography.

526-102 Radiographic Procedures 1 4 Credits

This course encompasses the radiographic anatomy, positioning and its terminology, image evaluation, and radiographic pathology pertinent to the performance of radiographic examinations of the chest, abdomen, upper and lower extremities, spinal column, and bony thorax. The laboratory portion of this course allows the student to simulate all radiographic examinations to the satisfaction of the instructor before performing procedures on patients.

526-103 Print Radiographic Exposure 3 Credits

This course is designed to provide the student with information and theory necessary to produce quality radiographs. Areas discussed include geometric and photographic characteristics of imaging material, x-ray exposure factors, influencing accessories and measurement devices and their application. Topics related to radiographic processing, such as latent image formation, processing chemistry, and film characteristics will also be discussed.

526-104 Radiation Biology & Protection 3 Credits

This course will provide the student with an overview of the principles of radiation protection and the interactions of radiation with living systems. Topics covered will include radiation safety practices for the patient, radiographer, and other personnel; regulatory agencies involved in radiation safety; and the concept of ALARA. Radiation biology topics will include radiation effects in biological molecules and organisms; factors affecting biological response; and acute effects of radiation.

526-105 Appld Clin Radiography I 2 Credits

In this course, students apply information learned in the classroom to the actual practice of Clinical Radiography. Under the guidance of designated clinical instructors and staff technologists, students perform radiographic procedures on actual patients and are evaluated on the various aspects of clinical performance. The first clinical course is designed to introduce the radiography student to the clinical environment and allows for the performance of radiographic procedures of the chest, abdomen, and upper and lower extremity.

526-106 Radiographic Procedures 2 4 Credits

This course encompasses the radiographic anatomy, positioning, image evaluation, positioning terminology, and radiographic pathology pertinent to the performance of radiographic examinations of the alimentary canal, biliary system, urinary system and skull. The laboratory portion of this course allows students to simulate all radiographic examinations to the satisfaction of the instructor before performing procedures on patients.

526-108 Appld Clin Radiography II 2 Credits

In this course students apply information learned in the classroom and from the first clinical course to the actual practice of Clinical Radiography. Under the guidance of designated clinical instructors and staff technologists, students perform radiographic procedures on actual patients and are evaluated on the various aspects of clinical performance. The second clinical course allows for the performance of radiographic procedures of the spinal column, bony thorax, gastrointestinal tract, biliary and urinary systems and skull.

526-109 Appld Clin Radiography III 1 Credit

In this course, students continue to apply information learned in the classroom and previous clinical courses to the actual practice of Clinical Radiography. Under the guidance of designated clinical instructors and staff technologists, students perform radiographic procedures on actual patients and are evaluated on the various aspects of clinical performance. The third clinical course allows for performance of portable and surgical radiography, trauma and emergency radiography, and continued experience in general radiographic procedures.

526-110 Appld Clin Radiography IV 2 Credits

In this course, students continue to apply information learned in the classroom and previous clinical courses to the actual practice of Clinical Radiography. Under the guidance of designated clinical instructors and staff technologists, students perform radiographic procedures on actual patients and are evaluated on the various aspects of clinical performance. The fourth clinical course allows for continued experience in general radiographic procedures as well as an introduction to specialty areas of medical imaging.

526-112 Appld Clin Radiography V 2 Credits

In the terminal clinical education course, students complete the process of becoming competent in all entry-level radiographic procedures. After completion of all clinical education requirements for graduation, radiography students are permitted to request additional clinical experiences in specialty areas of medical imaging.

526-113 Registry Review 3 Credits

This course is a review of all material covered during the course of the two years training for the purpose of preparing for the national certifying examination prepared by the American Registry of Radiologic Technologists. Emphasis is placed on the weak areas of the individual students. Simulated registry examinations are also utilized.

526-114 Intro Cross-Sectional Anat&Rad 3 Credits

An overview of the visualization of anatomical structures of the body as seen utilizing cross sectional medical imaging modalities such as computed tomography (CT scan), and magnetic resonance imaging (MRI). Anatomical structures will be studied in the axial, sagittal, and coronal body planes.

526-115 Methods of Patient Care 2 Credits

An overview of the principles and practices of patient care used in radiography. Topics will include proper history taking, measuring vital signs, aseptic and sterile technique, considerations of using contrast media, and emergency care pertinent to the handling and care of patients within the radiology department.

526-116 Special Imaging 2 Credits

This course encompasses the special radiographic procedures performed as part of general radiography including myelography, arthrography, hysterosalpinography, sialography, venography, mammography, and lymphangiography. Topics related to special imaging equipment such as digital image processing, computed tomography, magnetic resonance imaging and quality assurance testing will be explored.

526-117 Prin Radiographic Pathology 3 Credits

This course is designed to provide the student with the basic aspects of disease and its effect on the various body systems. This course also emphasizes the effect disease has on the performance of radiographic and radiologic procedures and how pathological conditions can be identified radiographically.

526-118 Radiation Physics 3 Credits

This course provides the student with an overview of general and radiation physics and introduces the radiographic student to the different radiography equipment found within the Department of Radiography. Topics include the structure of matter, the production and properties of x-rays, and interactions of x-rays with matter, magnetism, and electromagnetism, x-ray tubes, x-ray machine circuitry, and specialized medical imaging equipment.

526-120 Radiographic Film Evaluation 2 Credits

In this course, the student learns to critically evaluate radiographic images. A Systematic approach to radiographic evaluation that includes minimum standards for acceptable image quality, as well as thorough critique of photographic and geometric properties, or other factors that affect the quality of the finished radiograph. Students will critique finished radiographs against established evaluation criteria, and suggest measures for improvement.

526-121 Computerized Imaging Systems 3 Credits

This course explores computer technology and its impact of medical imaging. An overview of computer technology, imaging modalities utilizing computer technology, and internet resources available to the radiographer are topics covered as part of this course.

526-130 Introduction to Diagnostic Medical Sonography 2 Credits

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.

526-131 DMS General Procedures 1 4 Credits

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 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. The diagnostic medical sonography student will be familiarized with the scanning protocols and normal and abnormal sonographic findings.

526-132 DMS Clinical 1 2 Credits

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.

526-133 DMS General Procedures 2 4 Credits

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.

526-134 DMS Clinical 2 2 Credits

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.

526-135 DMS General Procedures 3 3 Credits

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.

526-136 DMS Physics I 3 Credits

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.

526-137 DMS Clinical 3 2 Credits

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.

526-138 DMS General Procedures 4 4 Credits

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 pathophysiology 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.

526-139 DMS Physics 2 Instrumentation 2 Credits

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.

526-140 DMS Clinical 4 1 Credit

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.

526-141 DMS Vascular Procedures 1 4 Credits

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.

526-142 DMS Clinical 5 2 Credits

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.

526-143 DMS Vascular Procedures 2 3 Credits

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.

526-144 DMS Clinical 6 2 Credits

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.

526-145 DMS Registry Review 2 Credits

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.

526-146 DMS Cross Sectional Anatomy 2 Credits

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.

526-156 Pathophysiology 3 Credits

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.

DIESEL & HEAVY EQUIPMENT TECHNICIAN

Technical Diploma

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
- Truck Mechanic

Diesel & Heavy Equipment Technician

	Course Name	Credits
Semester 1		
412-311	Truck Steering & Suspension	4
412-347	Inspection & Maintenance Procedures	4
804-304	Mathematic Fundamentals	2
412-310	Brake Service	4
Semester 2		
070-341	Electrical Systems	4
412-342	Electrical Systems Troubleshooting	4
412-304	Diesel Fuel Systems	4
801-311	Communication	2
Semester 3		
070-318	Drive Train Service	4
070-321	Heating, Cooling and Air Conditioning	3
070-340	Hydraulics 1	3
806-315	Applied Science	2
070-342	Hydraulics 2 ²	3
Semester 4		
070-308	Engine Fundamentals	3
412-351	Diesel Engine Service-Heads	4
412-352	Diesel Engine Service-Blocks	3
412-349	Equipment Welding	2
TOTAL CREDITS		55

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

804-304	Mathematic Fundamentals	2
801-311	Communication	2
806-315	Applied Science	2

Course Descriptions

412-304 Diesel Fuel Systems 4 Credits

This course begins with a review of basic diesel principles and design. Students then begin a comprehensive study of fuel injection systems, pumps, and injectors. Emphasis is placed on operation and troubleshooting of electronic fuel and computer control systems.

412-310 Brake Service 4 Credits

This course covers service and repair of air, hydraulic, manual, and ABS brake systems. Wheel bearing service and adjustment are also covered.

412-311 Truck Steering & Suspension 4 Credits

Study will include alignment, maintenance, troubleshooting, and repair of the following: solid, leaf spring, coil spring, rubber, air, and torsion bar suspension systems; manual and power steering; frames; ball joints; control arms; and drag links.

412-342 Elect Systems Troubleshooting 4 Credits

This course covers electronic application, testing, test results and their interpretation, reading voltmeters, systems analysis, printed circuits, troubleshooting and the use of

specialized tools are highlighted. The overall purpose of this course is to develop troubleshooting skills.

412-344 Hydraulic Sys Troubleshooting 3 Credits

Troubleshooting hydraulic failures on trucks, farm implements, and other equipment.

412-347 Inspection & Maint Procedures 4 Credits

Students perform state and federal motor vehicle safety inspections, along with preventative maintenance services. Emphasis is placed on component identification and inspection along with proper maintenance procedures per all applicable standards.

412-349 Equipment Welding 2 Credits

This course is designed to orient the student with the field of metals. The course provides students with basic experiences in the fields of welding and cutting. Topics covered include Shielded Metal Arc Welding (SMAW), Oxy-Fuel Cutting (OFC), and Gas Tungsten Arc Welding (GTAW).

412-350 Diesel Engine Overhaul 8 Credits

Provides the student with both a theoretical and practical background in the basic operating principles of diesel engines. Practical experience in rebuilding, testing, troubleshooting and tuning of diesel engines. Students disassemble a diesel engine, inspect parts, explain the function of each part and system, reassemble, run engines, and learn maintenance procedures. Auxiliary systems such as lubrication, cooling, intake and exhaust, turbo-charger, and blowers are covered.

412-351 Diesel Engine Service-Heads 4 Credits

This course provides the student with both a theoretical and practical background in the basic operating principles of diesel engine heads. Students gain practical experience in rebuilding, testing, and troubleshooting. Students disassemble diesel engine heads, inspect parts, explain the function of each part and system, reassemble, run engines, and learn maintenance procedures.

412-352 Diesel Engine Service-Blocks 3 Credits

This course provides the student with both a theoretical and practical background in the basic operating principles of diesel engine blocks. Students gain practical experience in rebuilding, testing, and troubleshooting. Students disassemble a diesel engine block, inspect parts, explain the function of each part and system, and reassemble.

412-358 Truck Alignment 2 Credits

Students learn alignment measurements and angles in this course. Emphasis is placed on troubleshooting steering and tire wear concerns. Students perform a truck alignment, making all corrective adjustments.

070-341 Electrical Systems 4 Credits

Theory, operation, functions and design of electrical systems are emphasized in this course. Starting, charging, accessory circuits, electrical troubleshooting, schematics, and wiring diagrams are covered.

070-318 Drive Train Service 4 Credits

This course introduces the student to standard hydrostatic and power transmissions systems. Maintenance and repair of automatic and standard transmissions, drive shafts, UB joints, constant velocity joints, differential equalizers, and differential assemblies are emphasized.

070-321 Heating, Cooling and Air Conditioning 3 Credits

Theory, operation and troubleshooting of heating, cooling and air conditioning systems are covered in this course. Students perform diagnostic tests and maintenance on each system. Upon successful completion of the course, students will take the state and federal air conditioning certification tests.

070-340 Hydraulics 1 3 Credits

This course is designed to give students a basic working knowledge of hydraulics and pneumatics on earth moving machines, trucks and other implements.

070-342 Hydraulics 2 3 Credits

This course is designed to give students a working knowledge of testing, servicing, adjusting and repairing hydraulic actuators and hydraulic systems of earth moving machines, trucks and other implements. Included are hydrostatic and power shift transmissions and systems appropriate to a wide range of implements.

070-308 Engine Fundamentals 3 Credits

Theory and operations of small engines. Emphasis is placed on measurement and troubleshooting of two and four cycle engines along with overhaul procedures.

EARLY CHILDHOOD EDUCATION

Associate Degree

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

	Course Name	Credits
<i>Semester 1</i>		
307-167	ECE: Health, Safety, and Nutrition	3
307-166	ECE: Curriculum Planning	3
307-151	ECE: Infant & Toddler Development	3
307-148	ECE: Foundations of ECE	3
307-179	ECE: Child Development ¹	3
801-195	Written Communication	3
	OR	
801-136	English Composition 1	3
<i>Semester 2</i>		
809-172	Introduction to Diversity Studies	3
307-187	ECE: Children with Differing Abilities	3
307-188	ECE: Guiding Children's Behavior	3
307-195	ECE: Family and Community Relationships	3
	OR	
809-188	Developmental Psychology	3
801-198	Speech	3
809-198	Intro to Psychology	3
	OR	
801-196	Oral/Interpersonal Communication	3
<i>Semester 3</i>		
806-112	Principles of Sustainability	3
307-192	ECE: Practicum 2 ²	3
307-178	ECE: Art Music & Language Arts	3
804-107	College Mathematics	3
307-174	ECE: Practicum 1 ²	3
	OR	
806-134	General Chemistry	4
	OR	
806-154	General Physics 1	4
809-166	Intro to Ethics: Theory and Application	3
	OR	
80X-XXX	General Education Elective	3

Early Childhood Education

Semester 4

307-198	ECE: Administering an ECE Program	3
307-197	ECE: Practicum 3	3 ³
307-199	ECE: Practicum 4	3 ³
307-194	ECE: Math, Science, & Social Studies	3
809-159	Abnormal Psychology	3
	OR	
80X-XXX	General Education Elective	3

Summer after second year

999-999	Elective	3
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TOTAL CREDITS **70**

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-136	English Composition 1	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
801-198	Speech	3
804-107	College Mathematics	3
806-112	Principles of Sustainability	3
806-134	General Chemistry	4
806-154	General Physics 1	4
809-159	Abnormal Psychology	3
809-166	Intro to Ethics: Theory and Application	3
809-172	Introduction to Diversity Studies	3
809-188	Developmental Psychology	3
809-198	Intro to Psychology	3
80X-XXX	General Education Elective	3

Course Descriptions

307-100 ECE: Preschool Capstone 3 Credits

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.

307-101 Infant, Toddlers & Caregivers 3 Credits

This course is an introduction to the development, care and education of children from 0-3. It includes the principles of care giving, developmentally appropriate practice, curriculum, guidance, observation and assessment. Both typical and atypical development are examined. Meets DHFS 15 hour requirement for Infant Toddler Care.

307-105 Children Health & Safety 3 Credits

This class includes health and safety provisions for young children, recognition of symptoms of illness, communicable illness, how to stop the spread of communicable illness, and the part nutrition plays in the well-being of a child. Planning nutritious menus and food activities for young children will be discussed.

307-106 ECE: Professionalism 2 Credits

Professionalism and advocacy in early childhood education are stressed. Development of a portfolio is required.

307-107 Fundamentals of Early Childhood 3 Credits

Topics in this course include group day care regulations, NAEYC accreditation, routines, environments, diversity, and selection of toys and equipment.

307-108 Orientation to Early Childhood 3 Credits

This course is a broad overview of the importance of quality child care. The role of the teacher is examined in a quality center. Early Childhood philosophies are examined.

307-109 Early Childhood Practicum I 3 Credits

The student will participate in a child care center in the role of a student assistant. Guided and supervised experiences in assisting children with routines, projects and activities give the student practical knowledge of the role of child care workers, and provide opportunities to apply knowledge and information from other child care courses.

307-110 Creative Expression 3 Credits

This course is structured for analysis and evaluation of a wide variety of play, art, music, creative materials and activities, and the contributions of each toward growth and development. There is emphasis on promoting creativity in children. The student is involved in a wide variety of learning experiences.

307-111 Child Growth & Development I 3 Credits

Physical, social, emotional, and cognitive development of children from birth to age 2 is studied. Information about development patterns and the nature vs nurture controversy is examined.

307-113 Creative Activities 3 Credits

This course involves the study of the importance of math, science, and language activities in programs designed for young children. The student is involved in planning and designing a variety of appropriate learning experiences, including storybook reading, puppetry, flannel-board presentations, hands on science activities, and math games.

307-114 Child Growth & Development II 3 Credits

Physical, social, emotional, and cognitive development of children from 2.5 to 8 is studied.

307-115 Early Childhood Practicum II 3 Credits

The student builds on previous practicum experience in development routines, projects and activities for young children. The student will have opportunities to demonstrate increasing independent and skills in the practice of being a child care teacher.

307-116 Building Partnerships 2 Credits

How family dynamics affect the development of the child is studied along with formal and informal methods of communication with parents/guardians. Community resources for families in our area are discussed.

307-117 ECE: Credit for Prior Learning 3 Credits

This 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.

307-118 Child Guidance 3 Credits

Techniques to help a child develop self-control are practiced and discussed. Emphasis on using positive guidance techniques when working with children in group and individual settings.

307-119 Early Childhood Practicum III 3 Credits

The student will participate in an early childhood center in the role of a Child Care Teacher. The student will be responsible for planning and presenting 6 days of activities with the children.

307-122 Diversity in Early Childhood 2 Credits

Learn how to create an anti-bias free curriculum, and environment for early childhood classrooms.

307-123 Administration of ECE Programs 3 Credits

This course will focus on the responsibilities of a Program Director/Administrator of an Early Childhood Center.

307-125 Leadership: Administrative Sem 3 Credits

This is the last of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. Students in this course have completed the first five courses successfully. Those first five courses are primarily about mastering the necessary skills to be successful at managing quality early childhood programs. The strategies learned in this course build upon their management skills, and take them beyond management to incorporate leadership in their programs, communities, and profession. In this course they are ready to synthesize the

material they have learned. Through the development of a major project, students demonstrate the integration and application of the concepts and skills acquired in the full series of courses.

307-126 Admin/Supv ECE Role Responsibi 3 Credits

This is the first of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs.

307-127 Oper Mgt in ECE Programs 3 Credits

This is the second of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course includes an introduction to systems and operations theory and the identification of concepts, processes, systems, and policies involved in the internal management of early care and education programs. It offers opportunity to apply this knowledge to plans for the improvement of these necessary systems, and for the development of standard operating procedures as appropriate.

307-128 Financial Mgt and Planning 3 Credits

This is the third of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course represents an overview of the roles and responsibilities of administrators of various early care and education programs and the groups with whom they have role relationships, with an emphasis on quality.

307-129 ECE and External Environment 3 Credits

This is the fourth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers the external factors and relationships that provide constraints and opportunities that affect an

organization's quality and ability to survive. It includes predicting supply and demand, marketing, licensing and other required regulation, funding, accreditation, external evaluation, collaboration with community organizations and agencies, public policy issues in early care and education, advocacy and working for public policy changes.

307-130 Best Practices Children & Family 3 Credits

This is the fifth of six courses designed to prepare participants to receive a credential as a child care administrator. Like the other five courses, it is developed to meet the needs of those who are employed or would like to be employed as administrators in child care programs, Head Start, nursery schools, school age programs, family child care, child welfare service agencies, public and private schools, and other early care and education programs. This course covers child care as a family friendly community; integration of child growth and development principles into all aspects of the program; establishing and maintaining quality in program; developing partnerships with families; multi-cultural and anti-bias approaches in curriculum, materials, activities and relationships; space design and equipment.

307-147 Infant Toddler Cred Capstone 3 Credits

This course integrates the theory, practice, and reflection of the other courses in the Infant Toddler Credential Certificate and requires demonstration of best practices.

307-148 Foundations of Early Childhood Education 3 Credits

This 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.

307-151 ECE: Infant & Toddler Development 3 Credits

In this 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.

307-152 WI Model Early Learning Stand 1 Credit

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.

307-166 ECE: Curriculum Planning 3 Credits

This 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.

307-167 ECE: Health, Safety, and Nutrition 3 Credits

This 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.

307-174 ECE: Practicum 1 3 Credits

In this 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-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.

307-178 ECE: Art Music & Language Arts 3 Credits

This 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 caregiving routines as curriculum; create developmentally appropriate language, literature, and literacy activities; create developmentally appropriate art activities; create developmentally appropriate music and movement activities.

307-179 ECE: Child Development 3 Credits

This 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).

307-187 ECE: Children with Differing Abilities 3 Credits

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.

307-188 ECE: Guiding Children's Behavior 3 Credits

This 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.

307-192 ECE: Practicum 2 3 Credits

In this 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.

307-194 ECE: Math, Science, & Social Studies 3 Credits

This 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.

307-195 ECE: Family and Community Relationships 3 Credits

In this course you will examine the role of relationships with family and community in early childhood education. Course competencies include: implement strategies that support diversity and anti-bias perspectives when working with families and community; analyze contemporary family patterns, trends, and relationships; utilize effective communication strategies; establish ongoing relationships with families; advocate for children and families; work collaboratively with community resources.

307-197 ECE: Practicum 3 3 Credits

In this course you will learn about and apply the course competencies in an actual child care setting. The course competencies include: assess children's growth and development; implement the standards for quality early childhood education; integrate strategies that support diversity and anti-bias perspectives; build meaningful curriculum; provide a developmentally appropriate environment; facilitate positive guidance strategies; evaluate one's own professional behaviors and practices; lead caregiving routines as curriculum; utilize positive interpersonal skills with children; utilize positive interpersonal skills with adults.

307-198 ECE: Administering an ECE Program 3 Credits

This course focuses on the administration of an early childhood education program. Course competencies include: integrate strategies that support diversity and anti-bias perspectives; analyze the components of an ECE facility; design an ECE program; analyze the aspects of personnel supervision; outline financial components of an ECE program; apply laws and regulations related to an ECE facility; advocate for the early childhood profession.

307-199 ECE: Practicum 4 3 Credits

In this practicum course you will learn about and apply the course competencies in an actual child care setting. Course competencies include: analyze children’s growth and development based on assessment; integrate strategies that support diversity and anti-bias perspectives; promote professional behaviors and practices; implement meaningful curriculum; create respectful, reciprocal relationships; evaluate early childhood education programs for quality; explore professional options in early childhood education.

ELECTRIC POWER DISTRIBUTION

Technical Diploma

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 using proper specifications and accepted procedures.
- 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
- Cable Splicer

	Course Name	Credits
Semester 1		
413-303	Industrial Electricity for Line Technicians	2
413-304	Safety Procedures I-Line Technicians	1
804-304	Mathematic Fundamentals	2
413-310	Electric Power Distribution 1A	5
413-315	Electric Power Distribution 1B	5
Semester 2		
413-305	Safety Procedures II-Line Technicians	1
801-311	Communication	2
806-315	Applied Science	2
413-320	Electric Power Distribution 2A	5
413-325	Electric Power Distribution 2B	5
TOTAL CREDITS		30

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

804-304	Mathematic Fundamentals	2
801-311	Communication	2
806-315	Applied Science	2

Course Descriptions

413-303 Industrial Electricity for Line Technicians 2 Credits

This course, an introduction to industrial electricity, covers such topics as principles of electricity, switching devices, magnetism and electromagnetism. Maintenance and repair of electrical equipment is discussed as it applies to electric utility situations in industry.

413-304 Safety Procedures I-Line Technicians 1 Credit

This course concentrates on personal overhead and underground line safety. The main emphasis will be on safety rules and procedures and their practical application in hands-on situations.

413-305 Safety Procedures II-Line Technicians 1 Credit

This course continues and expands on Safety Procedures 1. Additional subjects covered are a line technician's responsibility in protecting work areas and the public in everyday work and emergency situations.

413-310 Electric Power Distribution 1A 5 Credits

This course introduces basic electrical theory including AC and DC circuits. The different types of power distribution systems such as direct current, single phase and polyphase are studied. Special skills related to power distribution such as pole installation, climbing, safety, ropes and rigging, chainsaw repair and operation, structural design and installation will be covered during the laboratory sessions at the pole field.

413-315 Electric Power Distribution 1B 5 Credits

This course provides a variety of hands-on experiences with electric apparatus to increase proficiency in construction and maintenance of power distribution. Types of switching procedures, underground systems, and the use of hot sticks are covered.

413-320 Electric Power Distribution 2A 5 Credits

This course introduces the theory of three-phase electrical power systems, including wye and delta systems. Students will study single and three phase transformer; construction, principles of operation, connections as well as secondary power supply systems. Skills in electrical system grounding principles and over voltage equipment will be developed. Safety topics related to electrical line work will be highlighted.

413-325 Electric Power Distribution 2B 5 Credits

This course introduces electrical power line machinery such as over current equipment, voltage regulators and kilowatt

hour meters. Components and functions of an electrical substation, underground distribution systems, street lighting equipment, along with the sources of communication interference from electrical sources will be studied. Safety related topics are also included.

ELECTRO-MECHANICAL TECHNICIAN

Associate Degree

The study of Automated System 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:

- Integrate safety protocol.
- Locate and interpret specifications, processes, schematics and procedures.
- Operate power and hand tools and standard test equipment.
- Remove and replace system and component parts correctly.
- Repair defective components or systems.
- Diagnose the operation condition of components or systems.
- Service systems and components.
- Modify systems and components.
- Complete and maintain appropriate documentation for systems and processes.

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

Electro-Mechanical Technician

- Field Service Technician
- Electronic Service Technician
- Maintenance Service Technician
- Network Technician
- Fluid Power Technician
- Machine Repair Technician
- CNC Service Technician

	Course Name	Credits
Semester 1		
605-102	Fundamentals of DC Circuits ²	3
620-100	Hydraulics	3
620-105	Pneumatics ²	2
620-110	Intro to Programmable Logic Controllers (PLC) ²	4
804-113	College Technical Mathematics 1A	3
Semester 2		
605-104	Fundamentals of AC Circuits ³	3
605-106	Analog Circuits ³	3
620-115	Computer and Robotic Programming ¹	4
801-195	Written Communication	3
804-114	College Technical Mathematics 1B	2
809-198	Introduction to Psychology	3
Semester 3		
620-120	Motors and Drive Systems ³	2
620-125	Servos and Process Controls ³	2
620-130	Automated Cell Design and Planning ¹	2
620-135	Power Devices ¹	3
620-140	Robotic Systems ¹	3
806-154	General Physics 1	4
Semester 4		
620-145	Program Controllers and Human Interfacing Modules (HIM) Devices ¹	4
620-150	Interfacing Robotic Devices ³	4
620-155	Automated Robotic Cells ³	4
801-197	Technical Reporting	3
809-172	Introduction to Diversity Studies	3
	OR	
809-196	Introduction to Sociology	3
TOTAL CREDITS		67

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-197	Technical Reporting	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
806-154	General Physics 1	4
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

620-100 Hydraulics 3 Credits

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.

620-105 Pneumatics 2 Credits

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.

620-110 Intro to Programmable Logic Controllers (PLC) 4 Credits

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.

620-115 Computer and Robotic Programming 4 Credits

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.

620-120 Motors and Drive Systems 2 Credits

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.

620-125 Servos and Process Controls 2 Credits

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.

620-130 Automated Cell Design and Planning 2 Credits

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.

620-135 Power Devices 3 Credits

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.

620-140 Robotic Systems 3 Credits

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.

620-145 Program Controllers and Human Interfacing Modules (HIM) Devices 4 Credits

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.

620-150 Interfacing Robotic Devices 4 Credits

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.

620-155 Automated Robotic Cells 4 Credits

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.

620-160 Robotic Systems 3 Credits

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.

620-162 Applied Robotics 4 Credits

The student will apply the concepts of the robot by using system signal flow, block and logic timing diagrams. Knowing the system functions, the student will be able to analyze system malfunctions to the modular level and practice the skills needed to interface and repair them. Gaining this knowledge will be accomplished by completing an applied robotic project.

605-102 Fundamentals of DC Circuits 3 Credits

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.

605-106 Analog Circuits 3 Credits

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.

605-104 Fundamentals of AC Circuits 3 Credits

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.

FARM BUSINESS & PRODUCTION MANAGEMENT

Technical Diploma

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

	Course Name	Credits
Semester 1		
090-381	Operating The Farm Business	3
090-382	Soils Management	3
090-383	Crop Management	3
090-384	Livestock Nutrition	3
090-385	Livestock Management	3
090-386	Farm Records and Business Management	3

TOTAL CREDITS 18

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

090-381 Operating The Farm Business 3 Credits

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.

090-382 Soils Management 3 Credits

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.

090-383 Crop Management 3 Credits

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.

090-384 Livestock Nutrition 3 Credits

Emphasizes the skills, techniques and concepts necessary for sound feeding management. Feed values, pricing, terminology, requirements, 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.

090-385 Livestock Management 3 Credits

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.

090-386 Farm Records and Business Management 3 Credits

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.

FIRE PROTECTION TECHNICIAN

Associate Degree

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.

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

	Course Name	Credits
Semester 1		
503-143	Building Construction for Fire Protection	3
503-192	Principles of Emergency Services Safety & Survival	3
503-195	Fire Behavior and Combustion	3
503-191	Principles of Emergency Services	2
801-195	Written Communication	3
	OR	
801-136	English Composition 1	3
809-172	Introduction to Diversity Studies	3
Semester 2		
801-196	Oral/Interpersonal Communication	3
806-189	Basic Anatomy	3
503-142	Fire Fighting Principles	4
503-193	Fire Protection Systems	3
503-153	Hazardous Materials Awareness & Operations	1
804-107	College Mathematics	3
Summer between year 1 and year 2		
503-125	Emergency Medical Technician Fundamentals ¹	2
Semester 3		
503-151	Fire Prevention ¹	4
503-157	Fire Investigation ¹	3
503-128	Emergency Medical Technician Applications ¹	3
503-159	Fire Fighting Principles II ¹	2
809-199	Psychology of Human Relations	3
	OR	
809-198	Introduction to Psychology	3
503-161	Community Service	1
Semester 4		
503-194	Fire Protection Hydraulics	3
503-156	Strategies, Tactics & Inc Mgmt ¹	4
503-154	Hazardous Materials Chemistry ¹	2
503-106	Fire Science Employability	3
801-197	Technical Reporting	3
503-160	Fire Protection Technician Internship ¹	3
	OR	
999-999	Elective Course	3
TOTAL CREDITS		70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-136	English Composition 1	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
801-197	Technical Reporting	3
804-107	College Mathematics	3
806-189	Basic Anatomy	3
809-172	Introduction to Diversity Studies	3
809-198	Introduction to Psychology	3
809-199	Psychology of Human Relations	3

Course Descriptions

503-105 Fire Fighter Health and Safety 2 Credits

This course introduces the students to the physical, emotional, intellectual and social aspects of a career in the fire service. Topics include safety, health and wellness, common diseases, life style choices and fitness. The student will receive the knowledge needed to make healthy life style choices, select appropriate risk management techniques to handle incidents safely and make decisions in the overall health and safety of the fire department members.

503-106 Fire Science Employability 3 Credits

Fire Service Employability is designed to ease the student's transition into the work force. The course discusses the strategies and skills needed to apply for and test for careers in the fire service. Topics included are job search, employment correspondence, application process, interviewing and physical testing. These topics are enhanced by resume planning, mock interviews, job search planning and preparation for physical ability testing.

503-107 Fire Service Internship 3 Credits

The Fire Service Internship is intended to allow students in the Fire Protection Technician Program an opportunity to hone their skills by providing a comprehensive work experience at a host fire department.

503-108 Bldg Constr & Fire Ordinances 4 Credits

The basic principles of structural design, masonry, frame, veneer, structural steel and reinforced construction are studied, with fire ordinances that apply during construction.

503-109 Intro to Hazardous Materials 3 Credits

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.

503-110 Driver Op-Pump Cert 2 Credits

The objective of this course is to train fire department personnel to safely drive fire department apparatus to and from emergency scenes and to provide a new driver/operator with the knowledge, information, and skills needed to operate a fire pump in a basic mode on the fireground. The student will receive instruction and hands-on application on the parts of a fire pump, pump operations, and how to calculate friction loss for proper hoseline and master stream flows. This course is a State of Wisconsin certification course and it prepares students for the state written and practical tests. A pre-requisite is Firefighter I or Course #503-142 Fire Fighting Principles I.

503-113 Supervisory Techniques-FS 3 Credits

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.

503-115 Handling Hazardous Materials 3 Credits

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.

503-117 Fire Prevention/Systems 4 Credits

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.

503-118 Fire Suppression 3 Credits

Firefighting problems are presented that are commonly encountered by the firefighter at the company level. Fundamental strategy and methods of attack employed for each fire problem presented are thoroughly reviewed.

503-122 Fire Service Hydraulics 3 Credits

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 are studied.

Fire Protection Technician

503-125 Emergency Medical Technician Fundamentals 2 Credits

This two-credit, eight-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.

503-126 Fire Department Administration 3 Credits

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.

503-128 Emergency Medical Technician Applications 3 Credits

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.

503-135 Fire-Arson Investigation 3 Credits

Problems and techniques of fire and arson investigation are studied with emphasis on the application and assistance of various aids to the investigation.

503-139 Principles of Emergency Svcs 3 Credits

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.

503-142 Fire Fighting Principles 4 Credits

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.

503-143 Building Construction for Fire Protection 3 Credits

Provides the components of building construction that relate to fire and life safety.

503-144 Direct Independ Research I 3 Credits

This course is designed to allow a student to research and dissect a problem area in Fire Science.

503-146 Direct Independ Research II 2 Credits

This course is designed to allow a student to research and dissect a second problem area in Fire Science.

503-147 Fire Protection Systems 4 Credits

Provides information relating to the features of design and operation of fire detection and suppression systems.

503-148 Tactical Prob & Disaster Plan 3 Credits

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.

503-150 Personnel Mgt For Fire Service 3 Credits

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.

503-151 Fire Prevention 4 Credits

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.

503-152 Hazardous Materials 4 Credits

Examines characteristics relating to hazardous materials including problems of recognition and mitigation. Prepares students to Hazardous Materials Technician Level.

503-153 Hazardous Materials Awareness and Operations 1 Credit

Examines characteristics relating to hazardous materials including problems of recognition and defensive operations. Prepares students to the Hazardous Materials Awareness and Operations level of NFPA 472.

503-154 Hazardous Materials Chemistry 2 Credits

This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.

Fire Protection Technician

503-155 Fire Protection Hydraulics 4 Credits

Provides a foundation of knowledge in order to understand the principles of the use of water in fire protection. Meets all of the requirements for Driver Operator-Pumper certification with the State of Wisconsin.

503-156 Strategies, Tactics & Inc Mgmt 4 Credits

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.

503-157 Fire Investigation 3 Credits

Provides learners with the fundamentals and technical knowledge needed for proper fire scene investigations.

503-159 Fire Fighting Principles II 2 Credits

Builds on the basic skills learned in Fire Fighting Principles with an emphasis on scene management, communication, and fire operations processes.

503-160 Fire Protection Technician Internship 3 Credits

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. FTP interns will 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 432 hours and is designed to be served in the assigned fire station, under supervision, in 24-hour shifts, for a total of 18 shifts, or approximately one shift per week during a semester. Completion requires satisfactory reporting from assigned agency fire chief and FPT program coordinator.

503-161 Community Service 1 Credit

This Service Learning Course will introduce the student to the concept of the value of involvement in community service as a Fire Protection Technician. Students will investigate various topics such as leadership concepts, servant leadership, fire prevention education and will engage in a group project that provides leadership and volunteer opportunities in the community through fire service. Students will be able to identify the value of service learning in the community as well as define their own goals for future community engagement through fire service.

503-191 Principles of Emergency Services 2 Credits

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.

503-192 Principles of Emergency Services Safety & Survival 3 Credits

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

503-193 Fire Protection Systems 3 Credits

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.

503-194 Fire Protection Hydraulics 3 Credits

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.

503-195 Fire Behavior and Combustion 3 Credits

This 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.

HORTICULTURE/LANDSCAPE TECHNICIAN

Technical Diploma

The Horticulture/Landscape Tech program is designed for students, working professionals, and nonprofessionals who have a passion for sustainability and environmental stewardship within the green industry. Students may attend just one class or complete the entire program.

Instructors currently working in their respective fields teach economically viable and environmentally sound practices in the planning, establishment and care of public, private and commercial landscapes. Eight-week courses are offered in the evenings and on selected Saturdays.

Program Outcomes:

- Assess tasks based on sustainable environmentally responsible practices.
- Select plants adapted for various applications.
- Create sustainable, environmentally sound landscape design plans.
- Construct landscape design plans.
- Demonstrate safe operation of tools and equipment used in landscape applications.
- Maintain turf and landscape plants.

Graduates have found employment as:

- Landscape Designer
- Grounds Supervisor
- Golf Course Superintendent
- Landscape Supervisor
- Grounds Crew Supervisor
- Grounds Maintenance Supervisor
- Buildings and Grounds Supervisor
- Groundskeeper Supervisor
- Landscape Manager
- Athletic Fields Superintendent
- Groundskeeper
- Outside Maintenance Worker
- Gardener
- Greens Keeper
- Grounds Worker
- Grounds/Maintenance Specialist
- Utility Worker
- Grounds Maintenance Worker
- Nursery and Green House Worker / Manager

	Course Name	Credits
Semester 1		
001-330	Weeds and Invasive Species	1
001-302	Landscape Design I	1
001-304	Landscape Tools and Equipment	1
001-331	Plant Health Management	1
001-305	Soils and Fertilizers	1
001-332	Woody Ornamentals - Trees	1
001-306	Arboriculture and Turf Management	1
001-333	Woody Ornamentals -Shrubs	1
Semester 2		
001-303	Horticultural Pest Management	1
001-307	Landscape Construction	1
001-309	Landscape Design II ¹	1
001-324	Plant Propagation	1
001-310	Service Business Fundamentals	1
001-317	Herbaceous Plants	1
001-313	Golf and Sports Turf Management	1
001-322	Landscape & Environment	1
001-334	Internship	2
TOTAL CREDITS		18

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

001-301 Diseases,Weeds & Pests 1 Credit

Control of diseases, weeds and pests specific to Wisconsin Landscape Plants. Identification and correct diagnosis is emphasized while examining various landscape settings.

001-302 Landscape Design I 1 Credit

Students develop basic landscape plans, with emphasis on function, design principals, composition & environmental impact.

001-303 Horticultural Pest Management 1 Credit

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.

001-304 Landscape Tools and Equipment 1 Credit

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.

001-305 Soils and Fertilizers 1 Credit

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.

001-306 Arboriculture and Turf Management 1 Credit

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.

001-307 Landscape Construction 1 Credit

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.

001-308 Turf & Lawn Grasses 1 Credit

This class covers the establishment and maintenance of various kinds of turf grasses according to planned use. Special emphasis is on problems associated with home lawns and golf courses, along with other high-use areas.

Horticulture/Landscape Technician

001-309 Landscape Design II 1 Credit

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.

001-310 Service Business Fundamentals 1 Credit

Provides 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.

001-313 Golf and Sports Turf Management 1 Credit

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, infields, line and logo painting, and water feature considerations.

001-317 Herbaceous Plants 1 Credit

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.

001-318 Trees & Shrubs 1 Credit

Learners select trees and shrubs appropriate for various landscape schemes in Wisconsin based on physical characteristics, cultural needs, and customer preference.

001-321 Landscape Design III-Adv 1 Credit

Students complete landscape design projects and have them evaluated for practicality and maintainability. Some design projects may be constructed by landscape students.

001-322 Landscape & Environment 1 Credit

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.

001-323 Orchard & Fruit Culture 1 Credit

Planting, management, harvesting and identification of recommended cultivars of apples, small fruit, and related species for both the home orchard and commercial fruit operation are covered.

001-324 Plant Propagation 1 Credit

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.

001-325 Interior Plantscapes 1 Credit

Learners identify and care for houseplants and use them to decorate living spaces from apartments to malls by employing landscape principles along with interior design techniques.

001-330 Weeds and Invasive Species 1 Credit

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.

001-331 Plant Health Management 1 Credit

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.

001-332 Woody Ornamentals - Trees 1 Credit

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."

001-333 Woody Ornamentals -Shrubs 1 Credit

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."

001-334 Internship 2 Credits

During this 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.

HUMAN RESOURCES

Associate Degree

The Human Resources Program prepares students to assist small to mid-sized organizations in effectively recruiting, developing, and utilizing their human resources. You'll 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

	Course Name	Credits
Semester 1		
102-148	Introduction to Business and Management	3
103-106	Introduction to Microsoft Office Suites	3
801-195	Written Communication	3
804-123	Math with Business Applications	3
116-193	Human Resource Management	3
116-168	Organizational Development	3

Semester 2		
102-137	Business Communications	1
116-102	Employee Training and Development	3
116-103	Employment Law	3
116-108	Health, Safety and Security	3
801-196	Oral/Interpersonal Communication	3
809-198	Introduction to Psychology	3

Semester 3		
116-115	Compensation and Benefits	3
116-116	Staffing Organizations	3
196-190	Leadership Development	3
116-118	Human Resource Information Systems ¹	3
116-119	Labor and Employee Relations	3
809-172	Introduction to Diversity Studies	3

Semester 4		
116-152	Talent Management	3
116-137	Payroll Administration ¹	3
116-138	Human Resource Practicum ¹	3
116-139	Introduction to Global Human Resources ¹	3
809-166	Intro to Ethics: Theory and Application	3
809-195	Economics	3

TOTAL CREDITS 70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-166	Introduction to Ethics: Theory and Application	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-198	Introduction to Psychology	3

Course Descriptions

116-102 Employee Training and Development 3 Credits

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.

116-103 Employment Law 3 Credits

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.

116-108 Health, Safety and Security 3 Credits

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 workplaces. 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.

116-115 Compensation and Benefits 3 Credits

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, and 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.

116-116 Staffing Organizations 3 Credits

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.

116-118 Human Resource Information Systems 3 Credits

Learners 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.

116-119 Labor and Employee Relations 3 Credits

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.

116-137 Payroll Administration 3 Credits

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.

116-138 Human Resource Practicum 3 Credits

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.

116-139 Introduction to Global Human Resources 3 Credits

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.

116-152 Talent Management 3 Credits

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.

116-168 Organizational Development 3 Credits

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.

116-193 Human Resource Management 3 Credits

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.

116-400 Organizational Culture 4 Credits

This course introduces participants 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.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

102-148 Introduction to Business and Management 3 Credits

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.

102-137 Business Communications 1 Credit

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.

196-190 Leadership Development 3 Credits

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.

INDIVIDUALIZED TECH STUDIES

The Individualized Technical Studies Degree is intended for currently employed individuals or other students who have a specific career objective that cannot be met by BTC's existing degree programs. By combining State Board approved courses from two or more major areas of study, students may, along with an occupational mentor, modify an occupational degree program into a unique Associate degree.

INDUSTRIAL ENGINEERING TECHNICIAN

Associate Degree

The Industrial Engineering program is designed to train persons to serve as technicians in the fields of industrial engineering and manufacturing production. Challenging assignments in any industry are open to qualified male or female industrial engineering technicians.

This program is designed with the working student in mind, and is offered on a part-time basis in the evenings. Most students are able to attain their Associate Degree in three to five years. Several of the technical courses are available in a self-paced format.

Industrial engineering technicians work on problems involving the efficient use of personnel, materials, and machines in the production of goods and equipment of all kinds, food processing, health care facilities, and many others.

Industrial engineering technicians use principles of science engineering, and mathematics to solve problems in quality control, research and development, manufacturing, sales, construction, and customer service. Many industrial

Industrial Engineering Technician

engineering technicians directly assist engineers and scientists, while others work more independently in production and inspection-related jobs. Their jobs are more practically oriented than those of scientists and engineers, and typically involve dealing with both the human and technical aspects of the workplace.

Program Outcomes:

- Maintain a safe work environment.
- Use CAD software.
- Support product design.
- Participate in process design.
- Perform quality functions.
- Utilize supporting software application programs.
- Plan facilities.
- Support shop-floor activities.

Graduates have found employment as:

- Industrial Engineering Technician
- Engineering Assistant
- Engineering Analyst
- Engineering Development Technician
- Engineering Liaison Person
- Mechanical Assistant - Mechanical Equipment
- Methods/Motion/Time Study Analyst

Programs

	Course Name	Credits
Semester 1		
623-121	Engineering Drawing and Measurement	3
623-170	Industrial Organization and Structure	3
196-135	Leadership: Individual to Team	3
804-113	College Technical Mathematics 1A	3
801-195	Written Communication	3
Semester 2		
606-127	Two-Dimensional Computer Aided Drafting (CAD)	3
623-160	Manufacturing Materials and Processes	3
801-196	Oral/Interpersonal Communication	3
804-114	College Technical Mathematics 1B	2
806-112	Principles of Sustainability	3
623-122	Ergonomics and Workplace Safety	2
Semester 3		
623-192	Process Planning	3 ¹
623-166	Industry and Quality Control	3
625-101	Foundations of Quality	3
	OR	
623-165	Facilities Planning	3
806-154	General Physics 1	4
999-999	Elective	3
Semester 4		
809-195	Economics	3
422-100	Metallurgy	3
623-155	Statistical Process Control (SPC)	3
623-196	Standards and+C1126 Regulations	1
809-198	Introduction to Psychology	3
999-999	Elective	3
TOTAL CREDITS		63

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
806-112	Principles of Sustainability	3
806-154	General Physics 1	4
809-195	Economics	3
809-198	Introduction to Psychology	3

Course Descriptions

623-121 Engineering Drawing and Measurement 3 Credits

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.

623-122 Ergonomics and Workplace Safety 2 Credits

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.

623-155 Statistical Process Control (SPC) 3 Credits

This course offers an in-depth exploration of the principles and applications of statistical process control. Specific subject areas covered include background, basic principles, variation, histograms, probability, variable and attribute control charts, and machine and process capability. Lectures will be supplemented with in-class exercises designed to make the concepts and their application more easily understandable. These individual and group activities will be drawn from the student workbooks and from additional materials to be distributed by the instructor.

623-160 Manufacturing Materials and Processes 3 Credits

A study is made of the various materials used in industry today and how those materials can be altered or worked to create a specific product. Various areas such as forming, casting, forging and machining are discussed.

Industrial Engineering Technician

623-165 Facilities Planning 3 Credits

This course covers the essential elements of plant layout and materials handling. Flow patterns, material handling requirements, equipment, and storage and retrieval methods are explored. The many factors affecting an efficient facility layout are examined, as are the decision-making tools for dealing with them. The course concludes with a group project, in which learners design an actual facility to satisfy given criteria. Each group will then present its design to the rest of the class for analysis and discussion.

623-166 Industry and Quality Control 3 Credits

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.

623-170 Industrial Organization and Structure 3 Credits

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.

623-192 Process Planning 3 Credits

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.

623-196 Standards and+C1126 Regulations 1 Credit

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).

196-135 Leadership: Individual to Team 3 Credits

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.

606-127 Two-Dimensional Computer Aided Drafting (CAD) 3 Credits

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.

625-101 Foundations of Quality 3 Credits

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.

422-100 Metallurgy 3 Credits

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.

INDUSTRIAL MECHANIC

Technical Diploma

The Industrial Mechanic program has been designed to give knowledge and the multi-craft skills needed to maintain complex and integrated manufacturing systems. This program seeks to provide a broad base of skills that are suitable for initial or upgrade training. Blackhawk Technical College's faculty brings real-world experience to the classroom. The major training areas will be: machining, electricity and hydraulics. Supporting disciplines are: blueprint reading, welding, rigging, refrigeration fundamentals, and drives and linkages.

Program Outcomes:

- Work safely in accordance with OSHA Standards.
- Integrate mechanical, electrical and hydraulic systems.
- Communicate technical information effectively.
- Install and troubleshoot basic electrical circuits.
- Install and troubleshoot basic hydraulic circuits.
- Apply machine shop fundamentals.
- Apply problem solving skills and troubleshooting methods.

Graduates have found employment as:

- Industrial or Maintenance Mechanic
- Machine Adjuster
- Machine Assembler
- Machine Erector
- Machine Repairer

Industrial Mechanic

	Course Name	Credits
Semester 1		
462-300	Electricity- Industrial Maintenance	3
462-315	Industrial Maintenance Hydraulics	3
462-325	Machine Rigging	3
462-320	Advanced Manufacturing- Drives and Linkages	3
Semester 2		
462-330	Motors and Controls	3
421-390	Blueprint Reading Maintenance	3
462-310	Maintenance Machining	3
462-335	Refrigeration Fundamentals for Maintenance	3
Semester 3		
462-305	Maintenance Welding	3
801-196	Oral/Interpersonal Communication	3
804-107	College Mathematics	3
TOTAL CREDITS		33

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-196	Oral/Interpersonal Communication	3
804-107	College Mathematics	3

Course Descriptions

462-300 Electricity- Industrial Maintenance 3 Credits

This course focuses on the fundamentals of basic electricity. Students will apply theory in the lab, learn to use common electrical tools, test instruments, and perform industrial wiring. In addition, students will be introduced to how the Sun's energy produces useful electricity through Photovoltaic (Solar). The discussions will be on understanding the use of charge controllers, learning to keep the power that is captured, and how converters work. Safety and fundamental principles will be acquired through hands-on demonstrations.

462-305 Maintenance Welding 3 Credits

This course is designed to provide students with the necessary job entry skills for performing repair and maintenance type activities in industry. The individualized instruction includes orientation and process introduction, shielded metal arc welding (SMAW) and gas tungsten arc welding (GTAW).

462-310 Maintenance Machining 3 Credits

This is an introductory course for those new to machine shop fundamentals. Students will have the opportunity to safely use basic hand tools, milling/drilling machines, lathes, grinders and power sawing equipment common to the industrial maintenance industry. Students will be able to produce a final project demonstrating the skills acquired in this course.

462-315 Industrial Maintenance Hydraulics 3 Credits

This course outlines the fundamental principles in the operation of fluid power as it is used in the transmission of power through various components, including cylinders,

motors, pumps and valves. Significant time will be spent in the lab working on hydraulic trainers and tearing down and building up components. In addition, students learn and practice tasks common to the pipe trades.

462-320 Advanced Manufacturing- Drives and Linkages 3 Credits

This course will focus on identifying the different types of bearings and gears along with their applications. The student will acquire knowledge of preloading bearings and setting gears to proper backlash and shaft endplay. Belt and chain drives will also be presented. The student will gain knowledge of alignment of shafts and couplings. This will all be accomplished through lecture, visual aids and hands-on.

462-325 Machine Rigging 3 Credits

This course will focus on the safe transport of equipment and other heavy objects using ropes, cables, slings, rollers, and hoists. Topics covered include knots, wire rope, chains, slings, shackles, hooks and rigging hardware. In addition, estimating load weight, center of gravity and mechanical advantage are also covered.

462-330 Motors and Controls 3 Credits

This course concentrates on electric motors and their controls. Students will be introduced to control devices such as switches, start/stop stations, control circuitry and motor starters. Emphasis will focus on single and multiphase AC and DC motors. Students will review and implement concepts of electron theory, magnetism, and ladder logic. Lab time will consist of wiring and trouble-shooting multi-phase motors and controls.

462-335 Refrigeration fundamentals for Maintenance 3 Credits

This course will focus on the function, operation, and components of the refrigeration cycle: evacuation, recovery and charging. Students will learn to solder and braze fittings, perform tube flaring and pipe threading. In addition, electric motors and automatic controls are introduced. Upon successful demonstration of the skills in this course, students will be eligible to take the EPA 608 refrigeration handling license examination.

421-390 Blueprint Reading Maintenance 3 Credits

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.

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 MCSA NET+, A+, Security+ and CCNA certifications.

Program Outcomes:

- Implement computer networks.
- Implement client systems.
- Implement server operating systems.
- Implement network security components.
- Troubleshoot network systems.
- Apply system analysis and design.
- Manage an Information Technology project from inception to implementation.
- Utilize structured programming principles in the creation, editing, compilation, and execution of computer programs.
- Utilize an industry-standard relational database management system (RDBMS) to illustrate an understanding of data design and data access.
- Design IP Telephony Systems for the enterprise.

Graduates have found employment as:

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

	Course Name	Credits
Semester 1		
150-120	Configuring Desktop Operating Systems	3
150-130	Introduction to Enterprise Networks	3
154-113	Desktop and Server Hardware	3
801-195	Written Communication	3
	OR	
801-136	English Composition 1	3
150-151	Information Security Principles	3
Semester 2		
150-127	Introduction to Enterprise Virtualization ¹	3
154-121	Information Technology Helpdesk/ Customer Service ³	
801-196	Oral/Interpersonal Communication	3
150-131	Routers and Routing Protocols ¹	3
150-133	Network Security ¹	3
809-195	Economics	3

Semester 3		
150-117	Local Area Network Switching and Wireless ¹	3
150-128	Windows Enterprise Server Administration ¹¹¹	3
150-118	Server and Data Center Virtualization ¹¹¹	3
152-150	Systems Analysis and Design ¹	3
809-166	Introduction to Ethics: Theory and Application	3
804-133	Math and Logic	3

Semester 4		
150-142	Advanced Local Area Network/Wide Area Network Topics ¹	3
150-132	IT-Project Management ¹	3
150-182	Information Technology Career Preparation ¹	1
809-198	Introduction to Psychology	3
150-154	Information Systems Security Measures ¹	3
809-196	Introduction to Sociology	3

TOTAL CREDITS 67

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-136	English Composition 1	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-133	Math and Logic	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

150-113 Computer Forensics 3 Credits

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.

150-117 Local Area Network Switching and Wireless 3 Credits

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.

150-118 Server and Data Center Virtualization 3 Credits

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.

150-120 Configuring Desktop Operating Systems 3 Credits

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.

150-121 IT Helpdesk & Customer Service 3 Credits

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.

150-127 Introduction to Enterprise Virtualization 3 Credits

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.

150-128 Windows Enterprise Server Administration 3 Credits

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.

150-130 Introduction to Enterprise Networks 3 Credits

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.

150-131 Routers and Routing Protocols 3 Credits

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.

150-132 IT-Project Management 3 Credits

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.

150-133 Network Security 3 Credits

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.

150-134 Internetwork Security 3 Credits

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.

150-135 Operating Systems Security 3 Credits

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.

150-136 Perimeter Security 3 Credits

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 Director, or a similar service, to create and maintain secure perimeters within a network.

150-139 Current Issues in Networking 3 Credits

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.

150-140 Data & Control Structures 3 Credits

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.

150-141 Linux 3 Credits

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.

150-142 Advanced Local Area Network/Wide Area Network Topics 3 Credits

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.

150-143 Exchange & SQL Server 3 Credits

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.

150-150 Systems Analysis & Design 3 Credits

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.

150-151 Information Security Principles 3 Credits

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.

150-152 IS Security Practicum 3 Credits

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.

150-153 IS Security Management 3 Credits

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.

150-154 Information Systems Security Measures 3 Credits

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.

150-155 Current Issues-Info Assurance 3 Credits

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.

150-155A Business Continuity Planning 3 Credits

This current issues and trends seminar course is designed for students enrolled in information technology, information security, e-Commerce and other business related programs. Learners will discuss a step-by-step process for addressing the fundamentals of disaster recovery planning as it pertains to getting an organization's IT systems back online as quickly as possible. Learners will first explore assessing the risks an organization faces to attacks from hackers, viruses, and worms. The course will then review strategies to develop, document, test, implement, and maintain procedures that helps an organization quickly return to normal operations with minimal losses. The entire disaster recovery planning process will be applied to student projects or case studies. *This course is intended for IT personnel as well as managers and supervisors.*

150-155B Current Issues-Cyber Law&Ethic 3 Credits

This current issues and trends seminar course is designed for students enrolled in information technology, information security, e-Commerce and other business related programs. Learners will be introduced to issues related to cybercrime, ethical issues surrounding internet use, personal and organizational privacy, intellectual property laws, and the regulation of information. A familiarity with computers and the Internet will be helpful to participants in the course.

150-155C Current Issues Comp Forensics 3 Credits

The purpose of this course is to provide broad exposure to both the computer forensics field and toolkits. It is meant to provide a hands-on training environment, with classes and labs composed of learning activities for both information technology and legal/law enforcement professionals. The intent of the course is to share (and exponentially increase) understanding of the disciplines of the different constituent students.

150-155D Network Forensics 3 Credits

This course will cover both advanced endpoint forensics (i.e., as a continuation of 150-155C) 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.

150-155E Web Security 3 Credits

This course will cover the installation and administration of Microsoft Windows Server Internet Information Services (IIS). It will also cover related services, such as Active Server Pages (ASP .Net), Routing & Remote Access Services (RRAS), Remote Authentication for Dial-in User Services (RADIUS), and similar topics. This course will concentrate on Windows server administration with applications to web development, information security, and business e-Commerce.

150-156 Network Forensics 3 Credits

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.

150-181 Supv Occup Exper-Network Spec 2 Credits

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.

150-182 Information Technology Career Preparation 1 Credit

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.

152-150 Systems Analysis and Design 3 Credits

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.

154-113 Desktop and Server Hardware 3 Credits

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.

154-121 Information Technology Helpdesk and Customer Service 3 Credits

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.

IT-WEB SOFTWARE DEVELOPER

Associate Degree

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.

	Course Name	Credits
Semester 1		
152-119	Introduction to Programming with JavaScript	3
152-157	Website Development-XHTML/CSS	3
152-163	Relational Database Design	3
801-195	Written Communication	3
804-133	Math and Logic	3
Semester 2		
152-142	Introduction to .NET Programming	3
152-147	Relational Database Development	3
152-143	Introduction to Java Programming ¹	3
152-167	AJAX and JavaScript Website Development ¹	3
801-196	Oral/Interpersonal Communication	3
809-196	Introduction to Sociology	3
Semester 3		
152-148	Relational Database Coding ¹	3
152-145	Advanced Java Programming ¹	3
152-149	Secure Coding ¹	3
152-158	Advanced Website Development ¹¹	3
152-161	Web Application Development Using ASP.NET ¹	3
809-198	Introduction to Psychology	3
Semester 4		
152-153	Mobile Web App Development - iPhone ¹	3
152-156	Mobile Web App Development - Android ¹	3
152-164	Design and Implementation Projects ¹	3
152-182	Web Analyst Field Study ¹	1
809-195	Economics	3
809-166	Intro to Ethics: Theory and Application	3
TOTAL CREDITS		67

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-133	Math and Logic	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

152-119 Introduction to Programming with JavaScript 3 Credits

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.

152-129 Data Base Concepts 3 Credits

Database Concepts is a lecture/lab course introducing the student to database design terminology and concepts. Emphasis will be on creating a normalized database, with full understanding of the normalization process/principles. We will use Microsoft Access as a tool in database design, use, and maintenance.

152-133 Adv Systems Documentation 2 Credits

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.

152-139 Current Issues & Trend-Program 3 Credits

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.

152-139B Current Issues: Silverlight 3 Credits

Microsoft Silverlight is an application framework for writing and running rich internet applications (RIAS) with an emphasis on multimedia, animations, and graphics, with features and purposes similar to Adobe Flash. This course will include fundamental Silverlight development skills.

152-142 Introduction to .NET Programming 3 Credits

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 prerequisite.

152-143 Introduction to Java Programming 3 Credits

Introduction to Java Programming introduces programming and object-oriented design concepts using the Java programming language. Students learn 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.

152-144 Intermediate VB.Net 3 Credits

This course provides students with a comprehensive understanding of object-oriented system development. It examines and uses the prewritten .NET Framework classes and utilizes the MSDN help facility. Topics include: collections, exception handling, interfaces and advanced development techniques such as ASP.NET and database programming using ADO.NET.

152-145 Advanced Java Programming 3 Credits

Focuses on the server side of application programming for the Web. Topics include: inheritance, exception handling, advanced GUI applications, applets and array lists.

152-146 Enterprise Java Programming 3 Credits

This is the 3rd course in Java programming. Topics covered include: Servlets, Java Server Pages (JSPs), the extensible markup language (XML), Web services, custom tag libraries, the Java message service (JMS), Java naming and directory interface (JNDI), and Enterprise Java applications.

152-147 Relational Database Development 3 Credits

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.

152-148 Relational Database Coding 3 Credits

This class includes hands-on training utilizing a relational database management system (e.g., MySQL) in a client/server software environment. Topics covered include: advanced structured query language (SQL) commands and concepts, and database programming utilizing the PHP programming language.

152-149 Secure Coding 3 Credits

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.

152-150 Systems Analysis and Design 3 Credits

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.

152-151 Systems Analysis & Design II 2 Credits

Systems Analysis & Design II is a project-based course intended to continue building on the concepts learned in SAD I. We will further explore object-oriented methodologies, and put all previous learning into practice on a project that will be used by a local business or organization. We will perform analysis on the system, utilize the appropriate design methodologies, build, test, and implement the system, utilizing project management skills to assure completion of each phase. Working with "real users" will allow us to further expand communication skills, problem-solving skills, and technical skills.

152-153 Mobile Web App Development-iPhone 3 Credits

This course covers the basics of creating Mobile Web applications for an iPad/iPhone. The basics of the Objective-C language are covered working iPhone/iPad application.

152-154 Advanced Access 3 Credits

This course is an intermediate level class in Access database management system (DBMS). We will work within the Access environment on advanced features, write code (VBA and ADOX) within the Access environment, work on advanced database normalization concepts, and integrate Access with SQL Server 2000. Proficiency with Access 2000 or 2002 (XP) is assumed, and computer proficiency (as defined by program ready criteria) is required.

152-156 Mobile Web App Development - Android 3 Credits

This course covers the basics of creating Mobile Web applications for an Android phone. The associated android basic programming constructs are covered, using the Java programming language. Students will build an actual working Android application.

152-157 Website Development-XHTML/CSS 3 Credits

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.

152-158 Advanced Website Development 3 Credits

Advanced Website Development is a course in developing an actual working website, utilizing a server-side programming language (e.g.PHP) in conjunction with a Relational Database Management System (RDBMS) package such as MySQL.

152-160 Object Oriented Design w/UML 3 Credits

This course is designed to be a practical, introductory-level systems analysis course utilizing Unified Modeling Language (UML) concepts. Emphasis is on the physical system elements: data design, object-oriented design, user interface design (screen and report) and system interface design. The use of CASE tools (e.g. Visio) is integrated throughout the course to enhance the design experience.

152-161 Web Application Development Using ASP.NET 3 Credits

Students learn to 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 the class, 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.

152-162 Object Oriented Sys Analysis 3 Credits

Object-Oriented Systems Analysis is an intermediate course in systems analysis from an object-oriented (OO) point-of-view. The course will emphasize the analysis and documentation of systems, physical OO modeling and OO design. Students will demonstrate knowledge of OO concepts/ terminology, and the role UML plays in the systems analysis and design process.

152-163 Relational Database Design 3 Credits

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.

152-164 Design and Implementation Projects 3 Credits

This is a capstone course designed to have the student utilize all of the concepts learned in this program and in an actual application setting. The goal is for the student to actually build a working e-Commerce Website. Students taking this course concurrently with 152-163 will benefit in both courses.

152-167 AJAX and JavaScript Website Development 3 Credits

This course covers the basics of DHTML, JavaScript, and the XMLHttpRequest call. Students learn how to add JavaScript and AJAX to existing programs, and design new applications to exploit the power of Web 2.0.

152-171 Systems Implementation 2 Credits

Systems Implementation is a lecture/lab course that will focus on the testing, implementation, and user management issues involved with putting a system into production. Students will collaborate with the networking students in Network Management to orchestrate a successful implementation of their Systems Analysis and Design II projects.

152-181 Supv Occup Exp-Micro Prog 2 Credits

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.

152-182 Web Analyst Field Study 1 Credit

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.

152-191 Secure e-Commerce Concepts 3 Credits

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.

152-192 Designing Secure Websites 3 Credits

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.

152-193 Client/Server Systems Security 3 Credits

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.

LAB TECHNICIAN ASSISTANT

Technical Diploma

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

	Course Name	Credits
Semester 1		
506-103	Basic Laboratory Skills II ²	2
506-108	Laboratory Safety and Hazardous Materials	1
804-107	College Mathematics	3
103-112	Introduction to Microsoft Excel	1
801-195	Written Communication	3
513-110	Basic Lab Skills ²	1
806-199	General, Organic and Biological Chemistry	4

Semester 2

506-102	Intermediate Laboratory Skills ¹	3
804-189	Introductory Statistics	3
506-105	Quality Concepts in Laboratories	3
506-109	Data Management for Laboratory Assistants	1
806-197	Microbiology	4
801-197	Technical Reporting	3

TOTAL CREDITS 32

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

804-107	College Mathematics	3
801-195	Written Communication	3
806-199	General, Organic and Biological Chemistry	4
804-189	Introductory Statistics	3
806-197	Microbiology	4
801-197	Technical Reporting	3

Course Descriptions

506-101 Beginning Laboratory Skills 3 Credits

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.

506-102 Intermediate Laboratory Skills 3 Credits

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.

506-103 Basic Laboratory Skills II 2 Credits

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.

506-105 Quality Concepts in Laboratories 3 Credits

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.

506-108 Laboratory Safety and Hazardous Materials 1 Credit

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.

506-109 Data Management for Laboratory Assistants 1 Credit

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.

103-112 Introduction to Microsoft Excel 1 Credit

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).

513-110 Basic Lab Skills 1 Credit

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.

LEGAL ADMINISTRATIVE PROFESSIONAL

Associate Degree

The Legal Administrative Professional Associate of Applied Science Degree Program prepares students for employment as skilled assistants in law offices, legal firms, government offices, insurance agencies, real estate agencies, title companies, corporate offices, banks, and other organizations needing employees who have some substantive and procedural knowledge of the law. Legal Administrative Professional students have the opportunity to learn oral and written communication skills, legal office procedures and techniques, document formatting, file management, and legal research. Special emphasis is placed on legal vocabulary, document preparation, case management, ethics, and confidentiality. High-level skill development in keyboard, English, and word processing is an important part of the program.

Program Outcomes:

- Prepare legal documents from a variety of sources common to law offices and other agencies involved in legal transactions.
- Draft correspondence to handle routine matters.
- Proofread materials for proper English, accuracy, and clarity.
- Develop interpersonal relationship skills, including greeting clients, answering the telephone, and applying ethical rules.
- Maintain routine law office financial records.
- Process incoming and outgoing correspondence.
- Prepare citations using correct Blue Book format in legal memorandum and briefs.
- Follow procedural steps appropriate to calendaring/docketing procedures.
- Use appropriate technology to prepare legal documents and perform legal research.
- Use advanced word processing techniques to design documents.
- Prioritize daily activities using Outlook and other resources to manage a legal office and personal work efficiently.
- Use proper legal terminology and legal procedures in class discussions and document preparation.
- Manage electronic and paper-based information to maintain neat and organized files and client information.

Graduates have found employment as:

- Legal Secretary
- Legal Assistant
- Deputy Court Clerk
- Judicial Assistant
- Clerk/Typist
- Assistant Office Manager
- Receptionist
- Correspondence Clerk
- Word Processing Operator

	Course Name	Credits
Semester 1		
106-143	Skillbuilding ¹	1
801-195	Written Communication	3
106-116	Customer Service Essentials	3
106-138	Introduction to Law and Legal Terminology	3
106-181	Office Professionalism	3
809-196	Introduction to Sociology	3
Semester 2		
106-159	Business Spreadsheets	3
106-139	Records Management for Law Offices ¹	3
106-146	Word Processing Applications	3
102-109	Business Careers Planning/Business Communication ¹¹	3

Legal Administrative Professional

804-123	Math with Business Applications	3
809-198	Introduction to Psychology	3
	OR	
809-199	Psychology of Human Relations	3

Semester 3

101-102	Office Accounting	3
106-133	Business Writing and Document Formatting ¹	3
106-176	Legal Office Applications ¹	3
809-195	Economics	3
106-152	Legal Document Production 1 ¹	3
801-196	Oral/Interpersonal Communication	3

Semester 4

106-154	Legal Document Production 2 ¹	3
106-134	Legal Research and Writing ¹	3
106-151	Legal Office Procedures ¹	4
106-132	Legal Transcription ¹	3
809-166	Introduction to Ethics: Theory & Application	3
106-163	Supv Occup Exp-Legal Admin ¹¹¹	1

TOTAL CREDITS 69

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
809-166	Introduction to Ethics: Theory and Application	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
809-199	Psychology of Human Relations	3
804-123	Math with Business Applications	3

Course Descriptions

106-103 Medical Transcription 4 Credits

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.

106-104 Medical Specialties Transcrip 3 Credits

In this course, the student transcribes medically oriented reports, correspondence, and patient progress notes from various medical specialties using audio equipment and a word processing program. Format, grammar, spelling, punctuation, and proofreading are emphasized. Work is also done with English sound alike words.

106-105 Medical Editing and the EMR 3 Credits

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. Students will edit speech recognition files and learn to take meeting minutes through role playing scenarios.

106-107 Computerized Patient Billing 3 Credits

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.

106-108 Proofreading & Editing 1 Credit

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. Touch keyboarding and basic word processing skills are helpful.

106-109 Medical Office Administration 3 Credits

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.

106-110 Legal Office Professionalism 3 Credits

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 used. 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.

106-113 Health Insurance 3 Credits

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.

106-114 Healthcare Records Management 3 Credits

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.

106-116 Customer Service Essentials 3 Credits

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.

106-118 Pharmacology for MAS 2 Credits

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.

106-119 Med Minutes, Proofread, Editing 2 Credits

Students may learn to take meeting minutes in a variety of settings that will culminate in taking minutes during a meeting at a medical facility. Students will also develop proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. This course includes editing skills for improving format, consistency, clarity, conciseness, and completeness.

106-120 Med Term Transcriptn/Coding 3 Credits

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.

106-124 Supv Occup Exp-Medical Office 1 Credit

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.

106-127 Healthcare Communication 3 Credits

The emphasis of this course is on grammar, spelling (English and medical words), punctuation, and formatting. Students will become familiar with a variety of medical reference materials available to them: books, journals, and computer sites. A component of the course will cover the use of email for sharing files and as a communication tool. Touch keyboarding and basic word processing skills are necessary.

106-128 Health Care Office Technology 3 Credits

Health Care Office Technologies is an introductory course in the use of an office suite in a health care facility setting. It incorporates the use of word processing, spreadsheet, desktop publishing, and presentation software as an integrated application. Students will learn basic concepts associated with each component of the package and how to incorporate them in an office setting.

106-129 Business Filing 1 Credit

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.

106-130 Transcription Technology 2 Credits

Activities include transcribing documents, utilizing voice recognition software, and consulting reference materials. Correct business communications will be reinforced with emphases on proofreading, punctuation, grammar, and spelling.

106-131 Keyboarding Applications 3 Credits

Keyboarding Applications is designed to enhance keyboarding skills and to develop basic document formatting techniques while applying decision-making skills. Basic grammar and punctuation skills will be emphasized along with common word processing software.

106-132 Legal Transcription 3 Credits

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.

106-133 Business Writing and Document Formatting 3 Credits

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).

106-134 Legal Research and Writing 3 Credits

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.

106-135 Introduction to Basic Coding 1 Credit

This course will build upon skills learned in Health Care Insurance with emphasis on understanding the organization of the CPT and ICD coding books. Students will apply proper procedures in locating codes and use of coding symbols and conventions.

106-136 Patient Billing & Reimbursement 4 Credits

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.

106-137 Integrated Office Application 3 Credits

Students will learn to integrate their word processing skills with Microsoft Outlook, PowerPoint, Excel, and Access to produce complex documents. Internet and Intranet activities are integrated within some projects. Students will also develop employment portfolios and prepare employment-related documents.

106-138 Introduction to Law and Legal Terminology 3 Credits

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.

106-139 Records Management for Law Offices 3 Credits

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.

106-140 Keyboarding 1 Credit

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.

106-141 Legal Document Processing 3 Credits

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.

106-143 Skillbuilding 1 Credit

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.

106-145 Inform Technology Essentials 3 Credits

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.

106-146 Word Processing Applications 3 Credits

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.

106-151 Legal Office Procedures 4 Credits

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.

106-152 Legal Document Production 1 3 Credits

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.

106-153 Admin Office Procedures 3 Credits

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.

106-154 Legal Document Production 2 3 Credits

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.

106-155 Publication Design and Production 3 Credits

Utilizing software such as Photoshop Elements and Adobe InDesign students will combine the technology of the personal computer, scanners, digital cameras, color printers, and desktop publishing software with specific design and layout concepts. Students will apply the proper use of typefaces, graphics, tables, text and user-defined boxes, horizontal and vertical rules to the design and layout of newsletters, brochures, and other documents. The pace of this course is based on touch keyboarding skill of 40 words per minute and basic computer skills.

106-156 Business Database 3 Credits

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.

106-157 Intro Office Admin Careers 1 Credit

This orientation course provides an introduction to BTC's Administrative Assistant program and its requirements, selected BTC and external resources, and requirements of a professional administrative assistant. Informational interviews at area companies and/or guest speakers will be part of this course. Students will also start the development of their employment portfolios. Whenever possible, this course should be taken during the student's first semester.

106-158 Supv Occup Exp-Admin Prof 1 Credit

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.

106-159 Business Spreadsheets 3 Credits

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.

106-160 Administrative Office Mgt 3 Credits

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, travel and meeting planning, financial information, emerging technologies, and career development. Successful completion of all core courses in semesters 1, 2, and 3 of the Administrative Assistant Associate Degree program is expected.

106-163 Supv Occup Exp-Legal Admin 1 Credit

The student will obtain practical experience in a law office or a related field of work for a minimum of 72 hours during the last semester of training in the program. As new techniques and duties are acquired, the student will gain practical experience in the areas of reception, filing, transcription, office management, and any other duties normally performed by a legal secretary of the Affiliating Office.

106-164 Specialized Software Apps 3 Credits

Intended to introduce students to advanced applications used by office professionals, this software-intensive course provides an introduction to programs such as Microsoft Publisher, Microsoft FrontPage, 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.

106-165 Bus Presentations & Training 2 Credits

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.

106-175 Legal Office Communications I 3 Credits

Course includes grammar and usage, punctuation, capitalization, correct use of numbers, possessives, editing and proofreading skills, and using these skills in applied writing for a legal office. This course includes job finding skills such as resume writing, cover letters, interview follow-up letters, and interviewing skills. Also included will be a unit on using email in a legal office as well as the development of basic composition skills for a law office.

106-176 Legal Office Applications 3 Credits

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.

106-177 Legal Office Case Management 3 Credits

This course is a capstone course and intended for the student's final semester. It will include case studies that will take a student from the beginning of a client's case through a variety of the procedures completed on a daily basis in a legal office.

106-180 Legal Term & Court Structure 3 Credits

This course is designed to introduce the student to basic legal vocabulary. The fields of law covered include criminal, torts, personal property, agency, wills and estates, and real property. The class also covers terminology relating to practice and procedure in the courts.

106-181 Office Professionalism 3 Credits

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."

106-182 Office Project Management 3 Credits

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.

106-183 Meeting and Event Planning 3 Credits

This course is designed to teach students to work effectively with different cultures, determine meeting attendees, manage a meeting budget, preparation of minutes, and coordination of meeting resources. Additionally, students will develop travel profiles, complete trip follow-up and explore compliance of international requirements. Touch keyboarding and basic word processing skills are necessary.

106-184 Web Technologies Office Mgmt 3 Credits

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.

106-185 Medical Document Formatting 3 Credits

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.

102-109 Business Careers Planning and Business Communication 3 Credits

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.

101-102 Office Accounting 3 Credits

Office Accounting is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing worksheets, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

MANUFACTURING INFORMATION TECHNOLOGY SPECIALIST

Associate Degree

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.

	Course Name	Credits
Semester 1		
631-100	Microcomputer Fundamentals	3
631-101	PC Software Fundamentals ²	3
631-102	PC Peripherals and Troubleshooting ²	3
631-106	IT Customer Service Fundamentals	3
631-111	PC Hardware Assessment ²	1
801-195	Written Communication	3
Semester 2		
631-104	Cyber Ethics	3
631-112	PC Hardware Interfacing ¹¹¹	1
631-115	Network Fundamentals ¹	3
631-116	Troubleshooting Shared Network Resources ²	3
631-118	Green IT	3
804-107	College Mathematics	3
Semester 3		
631-103	Apple Devices and Operating Systems ²	3
631-105	Helpdesk Fundamentals ¹	3
631-108	Manufacturing Communication Protocols ¹	3
631-109	Network Portfolio 1 ¹¹¹	1
631-119	Wireless Networking 1 ²	3
801-196	Oral/Interpersonal Communication	3
Semester 4		
631-107	Linux Operating Systems ²	3
631-110	Network Portfolio 2 ¹¹¹	1
631-113	Virtual Machine Fundamentals ²	3
631-114	Mobile Device Fundamentals ¹	3
631-121	Wireless Networking 2 ¹	3
631-122	Service Support Techniques ¹	1
TOTAL CREDITS		62

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
804-107	College Mathematics	3
801-196	Oral/Interpersonal Communication	3

Course Descriptions

631-100 Microcomputer Fundamentals 3 Credits

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.

631-101 PC Software Fundamentals 3 Credits

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.

631-102 PC Peripherals and Troubleshooting 3 Credits

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.

631-103 Apple Devices and Operating Systems 3 Credits

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.

631-104 Cyber Ethics 3 Credits

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.

631-105 Helpdesk Fundamentals 3 Credits

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.

631-106 IT Customer Service Fundamentals 3 Credits

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.

631-107 Linux Operating Systems 3 Credits

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.

631-108 Manufacturing Communication Protocols 3 Credits

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.

631-109 Network Portfolio 1 1 Credit

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.

631-110 Network Portfolio 2 1 Credit

This is the second 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.

631-111 PC Hardware Assessment 1 Credit

This is the first of a two 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 be expected to 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.

631-112 PC Hardware Interfacing 1 Credit

This is the second 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.

631-113 Virtual Machine Fundamentals 3 Credits

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.

631-114 Mobile Device Fundamentals 3 Credits

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.

631-115 Network Fundamentals 3 Credits

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.

631-116 Troubleshooting Shared Network Resources 3 Credits

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.

631-117 PC & Network Technology Update 3 Credits

As PC and Network technology evolves, so must the PC and/or Network technician. This course provides an outlet for the new CST to show their research skills. Given broad topics as examples, the student must choose a specific area and provide a pre-approved project showing their research. Projects can include, but are not limited to: research papers, PowerPoint presentations, short movies, fixing customer computers, etc. Theory and hands-on training combine in this self-paced course designed for the soon-to-be CST graduate as well as those already in the workplace.

631-118 Green IT 3 Credits

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.

631-119 Wireless Networking 1 3 Credits

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.

631-120 Ind Computer Applications 3 Credits

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.

631-121 Wireless Networking 2 3 Credits

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.

631-122 Service Support Techniques 1 Credits

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.

MARKETING

Associate Degree

The Marketing Associate of Applied Science Degree program enables students to understand and apply marketing, management, and entrepreneurial principles; to make rational economic decisions; and demonstrate social responsibility in a global economy. Students will learn career and technical skills in sales, marketing, market research, promotions, and leadership. Blackhawk Technical College's program provides opportunities to apply these skills in projects in business-

to-business, business-to-consumer, marketing management, and advertising environments. Students can choose from a broad range of career opportunities upon graduation. Typical graduation placement includes marketing support, sales and promotion, media planning and research, account service, sales and purchasing, and more.

Program Outcomes:

- Develop strategies to anticipate and satisfy market needs.
- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Evaluate information through the market research process to make business decisions.
- Prepare selling strategies.
- Understand principles of e-commerce.
- Create a professional development plan and portfolio.

Graduates have found employment as:

- Inside Sales
- Customer Service Reps
- Sales Professional
- Office Manager
- Special Events Coordinator
- Account Executives
- Sales Representatives
- Retail Management
- Web Marketing Associate
- Web Design Assistant

Marketing

	Course Name	Credits
Semester 1		
804-123	Math with Business Applications	3
103-106	Introduction to Microsoft Office Suites	3
104-104	Selling Principles	3
104-102	Marketing Principles	3
801-195	Written Communication	3
102-155	Introduction to Project Management	3
Semester 2		
106-155	Publication Design and Production	3
104-190	Retail Principles ¹¹	3
801-196	Oral/Interpersonal Communication	3
196-135	Leadership: Individual to Team	3
104-117	Integrated Marketing Communications ¹¹¹	3
Semester 3		
102-156	Project Leadership and Communications ²	3
104-109	Social Media Marketing ¹	3
809-198	Introduction to Psychology	3
809-195	Economics	3
809-172	Introduction to Diversity Studies	3
104-160	Marketing Research ¹	3
Semester 4		
104-140	e-Commerce Principles ¹	3
104-108	Website Administration for Marketers ¹	2
104-113	Marketing Career Strategies ¹¹¹	2
	OR	
104-154	Supervised Occupational Experience-Marketing ¹	2
102-157	Managing Projects ¹¹	2
104-118	Marketing Design Concepts ¹	3
104-146	Marketing Management ¹	3
809-196	Introduction to Sociology	3
	TOTAL CREDITS	69

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

104-102 Marketing Principles 3 Credits

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.

104-104 Selling Principles 3 Credits

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.

104-108 Website Administration for Marketers 2 Credits

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.

104-109 Social Media Marketing 3 Credits

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.

104-111 Computer Applications Mktg 3 Credits

This course develops fundamental skills in the use and integration of word processing, spreadsheets, and database software for business data analysis and related marketing applications.

104-113 Marketing Career Strategies 2 Credits

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.

104-117 Integrated Marketing Communications 3 Credits

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.

104-118 Marketing Design Concepts 3 Credits

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.

104-125 Marketing Media 3 Credits

This course provides a broad overview of the major elements of brand management and media selection. The learning process focuses on integrating advertising into an overall marketing strategy. The purpose of this course is to introduce the real world of advertising and its diversity, its processes and principles, its people and the professional experiences and ways thinking.

104-130 Fundamentals of Customer Serv 3 Credits

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.

104-131 Relationship Mgt Cust Serv 3 Credits

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.

104-132 Time Mgt & Problem Solving 3 Credits

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.

104-133 Sales Skills for Customer Svc. 3 Credits

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.

104-140 e-Commerce Principles 3 Credits

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.

104-144 Desktop Design 3 Credits

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.

104-146 Marketing Management 3 Credits

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.

104-149 Marketing Orientation 1 Credit

Students receive information to improve their likelihood of success in pursuing both their academic studies and their chosen careers. The course covers academic expectations of students in the Marketing Department and the institutional resources available to help meet individual needs and achieve objectives.

104-154 Supervised Occupational Experience-Marketing 2 Credits

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.

104-160 Marketing Research 3 Credits

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.

104-190 Retail Principles 3 Credits

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.

104-192 Merchandise Management 3 Credits

This course enables the student to learn how to manage a profitable retail enterprise. Elements of planning and control are covered for retail enterprise. Students will analyze sales and gross margin performance as well as their relationship to markup, markdowns, stock turns, cost of goods sold, and open-to-buy. Basic theories of merchandising are covered and applied to the current retail environment.

104-193 Supervision 3 Credits

Through experiential and cognitive exercises and processes, learners will model the qualities of effective leaders and practice their role in creating conditions that empower members of the marketing organization. They will develop skills in motivating, managing, and taking charge of projects and working with people. Learners will apply continuous improvement strategies and leadership skills while functioning as members of a functional team.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

102-155 Introduction to Project Management 3 Credits

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.

106-155 Publication Design and Production 3 Credits

Utilizing software such as Photoshop Elements and Adobe InDesign students will combine the technology of the personal computer, scanners, digital cameras, color printers, and desktop publishing software with specific design and layout concepts. Students will apply the proper use of typefaces, graphics, tables, text and user-defined boxes, horizontal and vertical rules to the design and layout of newsletters, brochures, and other documents. The pace of

this course is based on touch keyboarding skill of 40 words per minute and basic computer skills.

196-135 Leadership: Individual to Team 3 Credits

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.

102-156 Project Leadership and Communications 3 Credits

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.

102-157 Managing Projects 2 Credits

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.

MECHANICAL DESIGN TECHNOLOGY

Associate Degree

A mechanical design technician is trained to be an involved member of the engineering team engaged in the design, planning, development and testing of mechanical components and machines.

Training for this career requires technical skills of drafting, and knowledge of scientific and engineering principles as related to and applied to design.

Mechanical design technicians apply the theory and principles of mechanical engineering to design, development, and testing of machinery and mechanical equipment under direction of the engineering staff and physical scientists. Duties include review of project

Mechanical Design Technology

instructions, contracts, and specifications to determine test values, manufacturing procedures and component functions.

A designer uses engineering specifications and data, information from handbooks, equipment manuals, suppliers, catalogs, etc., which help determine whether an existing design is practical or economical to produce. The engineer may also be called upon to apply knowledge of basic engineering principles to solve design problems, such as those involving tolerances, strength, speeds motion, or the selection of the proper standard components for a mechanical device.

Graduates may find positions dealing with product development, equipment design, technical advising, tool design, machinery design, and other technical level positions as associates in the field of mechanical engineering. There is good opportunity for advancement beyond entry-level employment for graduates of the Mechanical Design Technology program.

Program Outcomes:

- Solve mechanical and spatial related problems.
- Design mechanical components using CAD software.
- Analyze and improve existing mechanical component drives.
- Recommend mechanical power transfer system upgrades in the realm of machine design.
- Utilize supporting software applications program aimed at supporting design changes.
- Design cost effective mechanical components.
- Work as a constructive and effective design team member.
- Balance design considerations with existing and future technology.

Graduates have found employment as:

- Mechanical Design Technician
- Mechanical Draftsperson
- Industrial Engineering Assistant
- Mechanical Design Technician/Supervisor
- Tool and Die Designer
- Tool Designer/Engineer
- Technical Illustrator
- Engineering/Manufacturing Liaison

	Course Name	Credits
Semester 1		
606-123	Interpreting Engineering Graphics	2
606-127	Two-Dimensional Computer Aided Drafting (CAD)	3
606-124	Orthographic Projection	3
801-195	Written Communication	3
804-113	College Technical Mathematics 1A	3

Semester 2		
606-133	Descriptive Geometry	2
606-125	Drafting Representations ¹	2
606-126	Fasteners and Processes ¹	3
623-160	Manufacturing Materials and Processes	3
804-114	College Technical Mathematics 1B	2
809-198	Introduction to Psychology	3

Semester 3		
606-120	Strength of Materials ¹	3
606-128	Three-Dimensional Computer Aided Drafting (CAD) ¹	3
606-129	Kinematics	3
806-154	General Physics 1	4
806-112	Principles of Sustainability	3

Semester 4		
606-130	Actuators	3
606-131	Geometric Dimensioning and Tolerancing	2
606-132	Design Applications	2
801-197	Technical Reporting	3
OR		
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
606-119	Introduction to SolidWorks ¹	3

TOTAL CREDITS 61

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-197	Technical Reporting	3
804-113	College Technical Mathematics 1A	3
804-114	College Technical Mathematics 1B	2
806-154	General Physics 1	4
809-172	Introduction to Diversity Studies	3
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
806-112	Principles of Sustainability	3

Course Descriptions

606-101 Intro Computer Aided Drafting 3 Credits

This an introductory course intended to familiarize the student with technical drawing and the basic operation of a CAD system through directed practice. Beginning with simple objects, drawings of increasing complexity will be assigned so the student gradually progresses from basic figures to the more advanced features and commands. Class sessions will combine lecture, group exercises, individual practice, and instructor assistance as required.

606-119 Introduction to SolidWorks 3 Credits

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.

606-120 Strength of Materials 3 Credits

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.

606-123 Interpreting Engineering Graphics 2 Credits

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.

606-124 Orthographic Projection 3 Credits

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.

606-125 Drafting Representations 2 Credits

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.

606-126 Fasteners and Processes 3 Credits

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.

606-127 Two-Dimensional Computer Aided Drafting 3 Credits

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.

606-128 Three-Dimensional Computer Aided Drafting (CAD) 3 Credits

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.

606-129 Kinematics 3 Credits

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.

606-130 Actuators 3 Credits

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.

606-131 Geometric Dimensioning and Tolerancing 2 Credits

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.

606-132 Design Applications 2 Credits

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.

606-133 Descriptive Geometry 2 Credits

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.

606-400 Intro to Pro-E Software 3 Credits

This course is designed to provide participants with an understanding of three dimensional CAD engineering software technology.

623-160 Manufacturing Materials and Processes 3 Credits

A study is made of the various materials used in industry today and how those materials can be altered or worked to create a specific product. Various areas such as forming, casting, forging and machining are discussed.

MEDICAL ADMINISTRATIVE SPECIALIST

Associate Degree

The Medical Administrative Specialist Associate Degree program 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, and foundations; insurance companies; medical publishers; research organizations; and medical product manufacturers. Medical Administrative Specialist students receive specialized training in medical ethics, records management, medical terminology, human anatomy, health insurance, medical billing, medical transcription, coding, and MS Office Suite software.

Program Outcomes:

- Use computers as tools for solving problems, collecting data, managing and communicating information, presenting ideas, and making decisions.
- Apply analytical skills in solving problems, collecting data, managing and communicating information, presenting ideas, and making decisions.
- Use appropriate English skills in written and oral communications and in listening.
- Demonstrate the medical legal aspects of health care office practices including confidentiality of health records, release of information, patient's rights, health records as legal evidence, informed consent, malpractice, agency, physician and employee liability.
- Use reference materials to research information.
- Apply medical language and 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.
- Use all forms of telecommunications effectively.
- Demonstrate effective communication skills integral to maintaining rapport with co-workers and clients.

Graduates have found employment as:

- Medical Administrative Specialist
- Administrative Secretary
- Medical Transcriptionist
- Entry-Level Coder
- Medical Records Technician, Medical Records Clerk

- Medical Voucher Clerk, Underwriting Clerk
- Receptionist
- Insurance Billing
- Medical Clerk/Typist
- Clinic Clerk, Hospital Clerk, Admissions Clerk

	Course Name	Credits
Semester 1		
106-143	Skillbuilding ¹	1
106-113	Health Insurance ¹	3
106-127	Healthcare Communication ¹	3
106-120	Medical Terminology for Transcription and Coding ¹	3
103-106	Introduction to Microsoft Office Suites	3
106-181	Office Professionalism	3
Semester 2		
106-185	Medical Document Formatting ¹	3
801-195	Written Communication	3
106-114	Healthcare Records Management ¹	3
804-123	Math with Business Applications	3
106-136	Patient Billing and Reimbursement ¹	4
806-194	Survey of Anatomy and Physiology	3
Semester 3		
530-102	Medical Office Coding I ¹	3
106-105	Medical Editing and the Electronic Medical Record ¹	3
106-118	Pharmacology for Medical Administrative Specialist ¹	2
801-196	Oral/Interpersonal Communication	3
809-199	Psychology of Human Relations	3
809-166	Introduction to Ethics: Theory & Application	3
Semester 4		
106-109	Medical Office Administration ¹	3
	OR	
106-124	Supervised Occupational Experience-Medical Office ¹	1
809-195	Economics	3
106-103	Medical Transcription ¹	4
809-172	Introduction to Diversity Studies	3
530-103	Medical Office Coding II ¹	3
	TOTAL CREDITS	68

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-123	Math with Business Applications	3
809-166	Introduction to Ethics: Theory & Application	3
809-172	Introduction to Diversity Studies	3
809-195	Economics	3
809-199	Psychology of Human Relations	3
806-194	Survey of Anatomy and Physiology	3

Course Descriptions

106-103 Medical Transcription 4 Credits

This course provides the student with instruction using audio equipment and medically oriented materials. Emphasis is placed on developing the ability to use

Medical Administrative Specialist

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.

106-104 Medical Specialities Transcrip **3 Credits**

In this course, the student transcribes medically oriented reports, correspondence, and patient progress notes from various medical specialties using audio equipment and a word processing program. Format, grammar, spelling, punctuation, and proofreading are emphasized. Work is also done with English sound alike words.

106-105 Medical Editing and the Electronic Medical Record **3 Credits**

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. Students will edit speech recognition files and learn to take meeting minutes through role playing scenarios.

106-107 Computerized Patient Billing **3 Credits**

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.

106-108 Proofreading & Editing **1 Credit**

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. Touch keyboarding and basic word processing skills are helpful.

106-109 Medical Office Administration **3 Credits**

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.

106-110 Legal Office Professionalism **3 Credits**

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 used. 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.

106-113 Health Insurance **3 Credits**

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.

106-114 Healthcare Records Management **3 Credits**

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.

106-116 Customer Service Essentials **3 Credits**

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.

106-118 Pharmacology for Medical Administrative Specialist **2 Credits**

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.

106-119 Med Minutes, Proofread, Editing 2 Credits

Students may learn to take meeting minutes in a variety of settings that will culminate in taking minutes during a meeting at a medical facility. Students will also develop proofreading skills for identifying and correcting punctuation, grammar, spelling, and usage errors. This course includes editing skills for improving format, consistency, clarity, conciseness, and completeness.

106-120 Medical Terminology for Transcription and Coding 3 Credits

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.

106-124 Supervised Occupational Experience-Medical Office 1 Credit

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.

106-127 Healthcare Communication 3 Credits

The emphasis of this course is on grammar, spelling (English and medical words), punctuation, and formatting. Students will become familiar with a variety of medical reference materials available to them—books, journals, and computer sites. A component of the course will cover the use of email for sharing files and as a communication tool. Touch keyboarding and basic word processing skills are necessary.

106-128 Health Care Office Technologies 3 Credits

Health Care Office Technologies is an introductory course in the use of an office suite in a health care facility setting. It incorporates the use of word processing, spreadsheet, desktop publishing, and presentation software as an integrated application. Students will learn basic concepts associated with each component of the package and how to incorporate them in an office setting.

106-129 Business Filing 1 Credit

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.

106-130 Transcription Technology 2 Credits

Activities include transcribing documents, utilizing voice recognition software, and consulting reference materials. Correct business communications will be reinforced with emphases on proofreading, punctuation, grammar, and spelling.

106-131 Keyboarding Applications 3 Credits

Keyboarding Applications is designed to enhance keyboarding skills and to develop basic document formatting techniques while applying decision-making skills. Basic grammar and punctuation skills will be emphasized along with common word processing software.

106-135 Introduction to Basic Coding 1 Credit

This course will build upon skills learned in Health Care Insurance with emphasis on understanding the organization of the CPT and ICD coding books. Students will apply proper procedures in locating codes and use of coding symbols and conventions.

106-136 Patient Billing and Reimbursement 4 Credits

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.

106-137 Integrated Office Application 3 Credits

Students will learn to integrate their word processing skills with Microsoft Outlook, PowerPoint, Excel, and Access to produce complex documents. Internet and Intranet activities are integrated within some projects. Students will also develop employment portfolios and prepare employment-related documents.

106-140 Keyboarding 1 Credit

Students will master the computer keyboard by touch including the letters and numeric keypad. Computer software is used to begin development of acceptable

106-141 Legal Document Processing 3 Credits

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.

106-143 Skillbuilding 1 Credit

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.

106-145 Inform Technology Essentials 3 Credits

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.

106-146 Word Processing Applications 3 Credits

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.

106-181 Office Professionalism 3 Credits

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."

106-182 Office Project Management 3 Credits

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.

106-183 Meeting and Event Planning 3 Credits

This course is designed to teach students to work effectively with different cultures, determine meeting attendees, manage a meeting budget, preparation of minutes, and coordination of meeting resources. Additionally, students will develop travel profiles, complete trip follow-up and explore compliance of international requirements. Touch keyboarding and basic word processing skills are necessary.

106-184 Web Technologies Office Mgmt 3 Credits

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.

106-185 Medical Document Formatting 3 Credits

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.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

Medical Administrative Specialist

530-102 Medical Office Coding I 3 Credits

This course prepares learners to assign ICD Clinical Modification codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for ICD Clinical Modification coding. Learners apply skills through coding application from medical documentation and various other coding exercises. Resources, including the Internet and coding software, will be introduced and reinforced to go along with ICD CM. Confidentiality and HIPAA is also reinforced throughout the course. An active role in team participation will be stressed.

530-103 Medical Office Coding II 3 Credits

This course prepares the learner to assign CPT codes while continuing to emphasize the use of ICD and HCPCS/CPT codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for both the ICD and CPT books. Learners apply skills through coding application to medical documentation and exercises. Students will demonstrate the knowledge and skill of bringing coding and the entire billing process together. Resources, including the Internet and coding software will be introduced and reinforced. Confidentiality and HIPAA is reinforced throughout the course. An active role in team participation will be required.

MEDICAL ASSISTANT

Technical Diploma

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.

	Course Name	Credits
Semester 1		
509-303	Medical Asst Lab Procedures 1 ²	2
509-304	Medical Asst Clin Procedures 1 ²	4
501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
509-301	Medical Asst Admin Procedures ²	2

509-302	Human Body in Health & Disease ²	3
801-195	Written Communication	3

Semester 2

509-305	Med Asst Lab Procedures 2 ¹¹¹	2
509-306	Med Asst Clin Procedures 2 ¹¹¹	3
509-307	Med Office Insurance and Finance ¹¹¹	2
509-308	Pharm for Allied Health ¹¹¹	2
509-309	Medical Law, Ethics and Professionalism ³	2
509-310	Medical Assistant Practicum ¹¹¹	3

TOTAL CREDITS 33

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

509-301 Medical Asst Admin Procedures 2 Credits

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.

509-302 Human Body in Health & Disease 3 Credits

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.

509-303 Medical Asst Lab Procedures 1 2 Credits

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.

509-304 Medical Asst Clin Procedures 1 4 Credits

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.

509-305 Med Asst Lab Procedures 2 2 Credits

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.

509-306 Med Asst Clin Procedures 2 3 Credits

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.

509-307 Med Office Insurance and Finance 2 Credits

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.

509-308 Pharm for Allied Health 2 Credits

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.

509-309 Medical Law, Ethics and Professionalism 2 Credits

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.

509-310 Medical Assistant Practicum 3 Credits

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.

501-101 Medical Terminology 3 Credits

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.

501-107 Introduction to Healthcare Computing 2 Credits

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.

MEDICAL CODING SPECIALIST

Technical Diploma

This program prepares students for employment as entry-level coding specialists in health care facilities such as hospitals, clinics, physician practice groups, surgery centers, long-term care facilities and home health care agencies. Coding specialists are also employed in consulting firms, coding and billing services, and insurance companies.

The medical coding specialist reviews medical documentation provided by physicians and other health care providers. The coding specialist assigns and sequences diagnostic and procedural codes using universally recognized coding systems. Several uses of coded data are for payment of health care claims, statistics and medical research. *This Program is offered at the Monroe Campus*

	Course Name	Credits
Semester 1		
501-107	Introduction to Healthcare Computing	2
	OR	
103-106	Introduction to Microsoft Office Suites	3
530-176	Health Data Management ¹¹	2
530-181	Intro to the Health Record	1
530-182	Human Disease for Health Professionals ¹¹	3
501-101	Medical Terminology	3
806-189	Basic Anatomy	3
	OR	
806-177	Gen Anatomy & Physiology	4
Semester 2		
530-185	HealthCare Reimbursement ¹¹	2
530-195	Applied Coding ¹¹	2
530-199	International Classification of Disease (ICD) Diagnosis Coding ¹¹	2
530-184	Current Procedural Terminology Coding ²	3
530-197	International Classification of Disease (ICD) Diagnosis Coding ²	3
	TOTAL CREDITS	26

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

806-189	Basic Anatomy	3
806-177	Gen Anatomy & Physiology	4

Course Descriptions

530-102 Medical Office Coding I 3 Credits

This course prepares learners to assign ICD Clinical Modification codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for ICD Clinical Modification coding. Learners apply skills through coding application from medical documentation and various other coding exercises. Resources, including the Internet and coding software, will be introduced and reinforced to go along with ICD CM.

Confidentiality and HIPAA is also reinforced throughout the course. An active role in team participation will be stressed.

530-103 Medical Office Coding II 3 Credits

This course prepares the learner to assign CPT codes while continuing to emphasize the use of ICD and HCPCS/ CPT codes with entry level proficiency. Learners will apply instructional notations, conventions, rules, and official coding guidelines for both the ICD and CPT books. Learners apply skills through coding application to medical documentation and exercises. Students will demonstrate the knowledge and skill of bringing coding and the entire billing process together. Resources, including the Internet and coding software will be introduced and reinforced. Confidentiality and HIPAA is reinforced throughout the course. An active role in team participation will be required.

530-112 Disease Process and Treatment 4 Credits

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.

530-176 Health Data Management 2 Credits

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.

530-181 Intro to the Health Record 1 Credit

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.

530-182 Human Disease for Health Professionals 3 Credits

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.

530-183 ICD-9-CM Coding 3 Credits

Prepares students to assign ICD-9-CM codes supported by medical documentation with entry-level proficiency. Students apply ICD-9-CM instructional notations, conventions, rules, and official coding guidelines when assigning ICD-9-CM codes to case studies and actual medical record documentation.

530-184 Current Procedural Terminology Coding 3 Credits

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.

530-185 HealthCare Reimbursement 2 Credits

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.

530-195 Applied Coding 2 Credits

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.

530-197 Intl Classification of Disease (ICD) Diagnosis Coding 3 Credits

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.

530-199 Intl Classification of Disease (ICD) Diagnosis Coding 2 Credits

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.

501-107 Introduction to Healthcare Computing 2 Credits

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.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

501-101 Medical Terminology 3 Credits

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.

MEDICAL LABORATORY TECHNICIAN

Associate Degree

Prepare for a career as a medical/clinical laboratory technician in hospitals, clinics and doctors' offices. In the laboratory, the CLT performs analytical procedures under the supervision of a medical technologist or physician career potential also exists in forensic medicine and biomedical manufacturing.

As this is a new program, accreditation through the National Accrediting Agency for Clinical Laboratory Science (NAACLS) is in progress. 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 should anticipate the possibility of traveling to complete the clinical experience.

Graduates of the program qualify for both the American Society of Clinical Pathologists Board of Registry and the National Certification Agency for Laboratory Personnel certification exams for medical laboratory technicians and clinical laboratory technicians, respectively, under the direction of the American Society of Clinical Pathologists and the American Society of Clinical Laboratory Science. *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.

Course	Name	Credits
Semester 1		
513-113	Quality Assurance Laboratory Math	1
513-111	Phlebotomy ²	2
513-115	Basic Immunology Concepts ²	2
513-110	Basic Laboratory Skills ³	1
806-177	General Anatomy and Physiology	4
806-199	General, Organic and Biological Chemistry	4
801-195	Written Communication	3
Semester 2		
506-102	Intermediate Laboratory Skills ¹	3
513-109	Blood Bank ¹	4
513-121	Coagulation ³	1
513-120	Basic Hematology ¹	3
801-197	Technical Reporting	3
806-197	Microbiology	4
Summer between year 1 and year 2		
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3
Semester 3		
513-130	Advanced Hematology ¹	2
513-131	Clinical Chemistry 1 ¹	3
513-132	Clinical Chemistry 2 ²	2
513-133	Clinical Microbiology ¹	4
513-114	Urinalysis ¹	2
Semester 4		
513-140	Advanced Microbiology ²	2
513-151	Clinical Experience 1 ³	3
513-152	Clinical Experience 2 ³	4
513-153	Clinical Portfolio ²	1
506-105	Quality Concepts in Laboratories	3
TOTAL CREDITS		67

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-197	Technical Reporting	3
806-177	General Anatomy and Physiology	4
806-197	Microbiology	4
806-199	General, Organic and Biological Chemistry	4
809-196	Introduction to Sociology	3
809-198	Introduction to Psychology	3

Course Descriptions

513-109 Blood Bank 4 Credits

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.

513-110 Basic Laboratory Skills 1 Credit

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.

513-111 Phlebotomy 2 Credits

This course provides opportunities for learners to perform routine venipuncture, routine capillary puncture and special collection procedures.

513-113 Quality Assurance Laboratory Math 1 Credit

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.

513-114 Urinalysis 2 Credits

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.

513-115 Basic Immunology Concepts 2 Credits

This course provides an overview of the immune system including laboratory testing methods for diagnosis of immune system disorders, viral and bacterial infections.

513-116 Principles of Phlebotomy 3 Credits

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.

513-120 Basic Hematology 3 Credits

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.

513-121 Coagulation 1 Credit

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.

513-122 Introduction to Blood Bank 2 Credits

This course focuses on basic blood banking concepts and procedures including blood typing and compatibility testing.

513-123 Advanced Blood Bank 2 Credits

This course consists of advanced blood banking concepts and procedures including work ups for adverse reaction to transfusions and disease states.

513-130 Advanced Hematology 2 Credits

This course explores mechanisms involved in the development of hematological disorders. Emphasis is placed upon laboratory techniques used to diagnose disorders and monitor treatment.

513-131 Clinical Chemistry 1 3 Credits

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.

513-132 Clinical Chemistry 2 2 Credits

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.

513-133 Clinical Microbiology 4 Credits

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.

513-140 Advanced Microbiology 2 Credits

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.

Medical Laboratory Technician

513-147 Phlebotomy Practicum 4 Credits

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.

513-151 Clinical Experience 1 3 Credits

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.

513-152 Clinical Experience 2 4 Credits

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.

513-153 Clinical Portfolio 1 Credit

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.

506-102 Intermediate Laboratory Skills 3 Credits

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.

506-105 Quality Concepts in Laboratories 3 Credits

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.

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; 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 multidisciplinary 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.

NURSING

Associate Degree

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:

Course Name	Credits
Semester 1	
543-101 Nursing Fundamentals ²	2
543-102 Nursing Skills ³	3
543-103 Nursing Pharmacology ³	2
543-104 Nsg: Intro Clinical Practice ³	2
806-177 General Anatomy and Physiology	4
801-195 Written Communication	3
809-188 Developmental Psychology	3
Semester 2	
543-105 Nursing Health Alterations ³	3
543-106 Nursing Health Promotion ³	3
543-107 Nsg: Clin Care Across Lifespan ³	2
543-108 Nsg: Intro Clinical Care Mgt ³	2
806-179 Advanced Anatomy and Physiology	4
801-196 Oral/Interpersonal Communication	3
Semester 3	
543-109 Nsg: Complex Health Alterat 1 ³	3
543-110 Nsg: Mental Health Comm Con ³	2
543-111 Nsg: Intermed Clin Practice ³	3
543-112 Nursing Advanced Skills ³	1
809-198 Introduction to Psychology	3
806-197 Microbiology	4
999-999 Elective	2
Semester 4	
543-113 Nsg: Complex Health Alterat 2 ³	3
543-114 Nsg: Mgt & Profess Concepts ³	2
543-115 Nsg: Adv Clinical Practice ³	3
543-116 Nursing Clinical Transition ³	2
809-196 Introduction to Sociology	3
999-999 Elective	3
TOTAL CREDITS	70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195 Written Communication	3
801-196 Oral/Interpersonal Communication	3
806-177 General Anatomy and Physiology	4
806-179 Advanced Anatomy and Physiology	4
806-197 Microbiology	4
809-188 Developmental Psychology	3
809-196 Introduction to Sociology	3
809-198 Introduction to Psychology	3

Course Descriptions

543-101 Nursing Fundamentals 2 Credits

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations across the lifespan. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance.

543-102 Nursing Skills 3 Credits

This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes

mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

543-103 Nursing Pharmacology 2 Credits

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.

543-104 Nsg: Intro Clinical Practice 2 Credits

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.

543-105 Nursing Health Alterations 3 Credits

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.

543-106 Nursing Health Promotion 3 Credits

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.

543-107 Nsg: Clin Care Across Lifespan 2 Credits

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.

543-108 Nsg: Intro Clinical Care Mgt 2 Credits

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.

543-109 Nsg: Complex Health Alterat 1 3 Credits

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.

543-110 Nsg: Mental Health Comm Con 2 Credits

This course will cover topics related to the delivery of community and mental health care. Specific health needs of individuals, families, and groups will be addressed. Attention will be given to diverse and at-risk populations. Mental health concepts will concentrate on adaptive/maladaptive behaviors and specific mental health disorders. Community resources will be examined in relation to specific types of support offered to racial, ethnic, economically diverse individuals and groups.

543-111 Nsg: Intermed Clin Practice 3 Credits

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.

543-112 Nursing Advanced Skills 1 Credit

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.

543-113 Nsg: Complex Health Alterat 2 3 Credit

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.

543-114 Nsg: Mgt & Profess Concepts 2 Credits

This course covers nursing management and professional issues related to the role of the RN. Emphasis is placed on preparing for the RN practice.

543-115 Nsg: Adv Clinical Practice 3 Credits

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.

543-116 Nursing Clinical Transition 2 Credits

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.

NURSING ASSISTANT

Technical Diploma

Nursing Assistants are members of the health care team. They help care for patients under the supervision of a professional registered nurse in hospitals, nursing homes, and home health care.

	Course Name	Credits
Semester 1		
543-300	Nursing Assistant ¹	3
543-302A	Nursing Assistant - Advanced ²	2
TOTAL CREDITS		5

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

543-300 Nursing Assistant 3 Credits

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 cares, gathering data such as vital signs or in-take and out-put 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. A textbook, workbook, NA handbook and online resources are used for instruction. Written exams, return demonstrations and clinical performance are used for student evaluation.

543-302A Nursing Assistant - Advanced 2 Credits

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.

PHARMACY TECHNICIAN

Technical Diploma

Pharmacy Technicians assist registered pharmacist in dispensing medications and other health care products to patients. They work in institutional and community pharmacies. Job duties include working with third party and doctor's offices in resolving adjudication of patients'

insurance or state funding programs. Pharmacy Technicians often do the routine tasks associated with preparing prescribed medication and providing drugs to patients. They may also compound medications, process verbal prescriptions, respond to doctor calls, coordinate expense and medication orders, handle returns and expired credits, and oversee non-licensed pharmacy management. A thorough knowledge of weights and measures and proficiency in area of fractions, ratios, proportions, decimals, and metric system conversions is strongly recommended for successful completion of this program.

Optional Pharmacy Technician certifications are available for those who are interested.

Program Outcomes:

- Prepare prescription orders accurately
- Provide effective customer service
- Process third party and direct payment transactions
- Prepare pharmaceutical products
- Maintain inventory and supplies

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

Courses taken before semester 1

	Course Name	Credits
536-302	Pharmacy Practice Orientation	1

Semester 1

536-312	Therapeutic Agents ¹¹¹	4
536-322	Pharmacy Calculations ¹¹¹	2
536-332	Pharmacy Practice ¹¹¹	2
501-101	Medical Terminology	3
501-107	Introduction to Healthcare Computing	2
801-390	Communication for the Health Professions ¹	2 ¹
	OR	
103-106	Introduction to Microsoft Office Suites	3

Semester 2

536-342	Prescription Processing ¹¹	3
536-352	Pharmacy Customer Service ¹¹¹	2
536-362	Pharmaceutical Preparations ¹¹¹	4
536-372	Payment Processing ¹¹¹	2
536-382	Pharmacy Clinical Practice ¹¹¹	2

TOTAL CREDITS 29

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

Course Descriptions

536-302 Pharmacy Practice Orientation 1 Credit

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 be shown the rigors that are associated with enrolling in an accelerated college program as well as the challenges associated with working as a health care 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.

536-312 Therapeutic Agents 4 Credits

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.

536-322 Pharmacy Calculations 2 Credits

The student will use basic algebra, ratios, conversions, and everyday mathematical formulas to complete pharmaceutical calculations.

536-332 Pharmacy Practice 2 Credits

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.

Pharmacy Technician

536-342 Prescription Processing 3 Credits

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.

536-352 Pharmacy Customer Service 2 Credits

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.

536-362 Pharmaceutical Preparations 4 Credits

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.

536-372 Payment Processing 2 Credits

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.

536-382 Pharmacy Clinical Practice 2 Credits

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.

501-101 Medical Terminology 3 Credits

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.

501-107 Introduction to Healthcare Computing 2 Credits

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.

801-390 Communication for the Health Professions 2 Credits

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. Students will learn special skills needed to write an effective cover letter and resume. Students will learn skills that will help them communicate effectively with patients or customers.

103-106 Introduction to Microsoft Office Suites 3 Credits

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.

PHLEBOTOMY TECHNICIAN

Technical Diploma

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,

Phlebotomy Technician

including emergency and routine collection procedures from veins, skin puncture areas and arteries on patients of all ages.

	Course Name	Credits
Semester 1		
501-101	Medical Terminology	3
513-116	Principles of Phlebotomy ²	3
501-107	Introduction to Healthcare Computing	2
Semester 2		
809-198	Introduction to Psychology	3
801-196	Oral/Interpersonal Communication	3
	OR	
501-104	Healthcare Customer Service	2
513-147	Phlebotomy Practicum ¹	4
TOTAL CREDITS		18

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

809-198	Introduction to Psychology	3
801-196	Oral/Interpersonal Communication	3

Course Descriptions

513-116 Principles of Phlebotomy 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.

513-147 Phlebotomy Practicum 4 Credits

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 to process and handle laboratory specimens as well as learning to function in a busy medical laboratory environment.

501-101 Medical Terminology 3 Credits

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.

501-107 Introduction to Healthcare Computing 2 Credits

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.

501-104 Healthcare Customer Service 2 Credits

This course is designed as an introduction to customer service for learners interested in various healthcare settings. The learner investigates healthcare systems, safety standards, and the workforce. The learner examines professionalism, interpersonal and written communication skills, and confidentiality as they relate to customer service in healthcare.

PHYSICAL THERAPIST ASSISTANT

Associate Degree

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.

	Course Name	Credits
Courses taken before semester 1		
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-107	College Mathematics	3
806-139	Survey of Physics	3
806-177	General Anatomy and Physiology	4
Semester 1		
809-198	Introduction to Psychology	3
524-138	PTA Kinesiology 1 ³	3
524-141	PTA Kinesiology 2 ³	4
524-139	PTA Patient Interventions ³	4
Semester 2		
524-147	PTA Clinical Practice 1 ³	2
524-143	PTA Therapeutic Modalities ³	4
524-142	PTA Therapeutic Exercise ³	3
524-145	PTA Principles of Musculoskeletal Rehab ³	4

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Physical Therapist Assistant

Semester 3

524-146	PTA Principles of Cardiopulmonary & Integumentary Conditions ³	3
524-144	PTA Principles of Neuromuscular Rehabilitation ³	4
809-166	Introduction to Ethics: Theory and Application	3
524-140	PTA Professional Issues 1 ³	2
524-148	PTA Clinical Practice 2 ³	3

Semester 4

524-149	PTA Rehab Across the Lifespan ¹¹¹	2
524-150	PTA Professional Issues 2 ³	2
524-151	PTA Clinical Practice 3 ³	5
809-172	Introduction to Diversity Studies	3

TOTAL CREDITS 70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
804-107	College Mathematics	3
806-139	Survey Of Physics	3
806-177	General Anatomy and Physiology	4
809-166	Introduction to Ethics: Theory and Application	3
809-172	Introduction to Diversity Studies	3
809-198	Introduction to Psychology	3

Course Descriptions

524-105 PTA Open Learning Lab 1 Credit

PTA Learning Lab is an independent learning lab offering simulated work experience. This opportunity allows the student to practice learned physical therapy skills during open lab times and receive feedback from a Laboratory Assistant.

524-110 PT Interventions I 7 Credits

This course introduces the student to the history of physical therapy, legal and ethical issues, the roles of the team members, and the professional organizations involved in physical therapy. An overview of physical therapy facilities, health care team members, and health care models and system, is included. Medical terminology, abbreviations, and documentation techniques are introduced. Principles of psychology, sociology, and communication are applied to the care of patients with physical disabilities. Fundamentals of patient care including vital signs, turning and positioning, transfers, transporting patients, aseptic techniques, and bandaging and slings are covered. The application of physical agents massage, and soft tissue mobilization are covered.

524-115 PT Clinical Practice I 2 Credits

This course introduces the student to the clinic. Students will apply skills learned in Physical Therapy Interventions I & II, and Applied Anatomy & Physiology to direct patient care in selected clinical education sites. This course introduces documentation, fire safety, and first aid. Written medical

reports and oral presentations focus on the patient interview and collection of medical information.

524-120 PT Interventions II 6 Credits

This course will cover elements of patient assessment including but not limited to muscle flexibility, goniometry and manual muscle testing. The student will learn how to design an exercise program for various musculoskeletal pathologies based upon a given treatment plan and be able to perform that exercise program. The student will apply lumbar and cervical traction treatments.

524-125 PT Clinical Practice 2 4 Credits

This course provides intermediate clinical experiences. Students will apply and refine skills learned in Physical Therapy Interventions I, II, and III to direct patient care in selected clinical education sites. In-depth written case histories require examination of diagnosis, medical history, and physical therapy programs. Documentation is emphasized, and oral presentations by students are included.

524-130 PT Interventions III 7 Credits

This course focuses on pathological gait and gait training; application of therapeutic electricity, techniques of pain management; cardiac rehabilitation and chest physical therapy; circulatory disorders; amputation and prosthetics; central nervous system development, assessment, pathophysiology, and rehabilitation procedures for CVA, head trauma, and spinal cord injury; and orthotics.

524-135 PT Clinical Practice III 5 Credits

This course provides full-time terminal clinical experience. Students will apply and refine skills learned in all previous academic and clinical course work. Experiences will be offered in selected clinical education sites; specialty areas are included.

524-138 PTA Kinesiology 1 3 Credits

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.

524-139 PTA Patient Interventions 4 Credits

An introduction to basic skills and physical therapy interventions performed by the physical therapist assistant.

524-140 PTA Professional Issues 1 2 Credits

Introduces the history and development of the physical therapy program, legal and ethical issues, the interdisciplinary health care team, and professional communication skills.

Physical Therapist Assistant

524-141 PTA Kinesiology 2 4 Credits

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.

524-142 PTA Therapeutic Exercise 3 Credits

Provides instruction on the implementation of a variety of therapeutic exercise principles. Learners implement, educate, adapt, and assess responses to therapeutic exercises.

524-143 PTA Therapeutic Modalities 4 Credits

Develops the knowledge and technical skills necessary to perform numerous therapeutic modalities likely to be utilized as a PTA.

524-144 PTA Principles of Neuromuscular Rehabilitation 4 Credits

Integrates concepts of neuromuscular pathologies, physical therapy interventions, and data collection in patient treatment.

524-145 PTA Principles of Musculoskeletal Rehabilitation 4 Credits

Integrates concepts of musculoskeletal pathologies, physical therapy interventions, and data collection in patient treatment.

524-146 PTA Principles of Cardiopulmonary & Integumentary Conditions 3 Credits

Integrates concepts of cardiopulmonary and integumentary pathologies, physical therapy interventions, and data collection in patient treatment.

524-147 PTA Clinical Practice 1 2 Credits

Provides a part-time clinical experience to apply foundational elements, knowledge, and technical skills pertinent to physical therapy practice.

524-148 PTA Clinical Practice 2 3 Credits

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.

524-149 PTA Rehab Across the Lifespan 2 Credits

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.

524-150 PTA Professional Issues 2 2 Credits

Incorporates professional development, advanced legal and ethical issues, healthcare management and administration, and further development of professional communication strategies.

524-151 PTA Clinical Practice 3 5 Credits

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.

PRACTICAL NURSING

Associate Degree

Students may apply for testing for licensure as an LPN after successfully completing all courses through the second semester of the ADN Nursing program.

	Course Name	Credits
Semester 1		
543-301	Nursing Fundamentals ³	2
543-302	Nursing Skills ³	3
543-303	Nursing Pharmacology ³	2
543-304	Nsg: Intro Clinical Practice ³	2
809-188	Developmental Psychology	3
801-195	Written Communication	3
806-177	General Anatomy and Physiology	4
Semester 2		
543-305	Nursing Health Alterations ³	3
543-306	Nursing Health Promotion ³	3
543-307	Nsg: Clin care Across Lifespan ³	2
543-308	Nsg: Intro Clinical Care Mgt ³	2
801-196	Oral/Interpersonal Communication	3
TOTAL CREDITS		32

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-196	Oral/Interpersonal Communication	3
809-188	Developmental Psychology	3
801-195	Written Communication	3
806-177	General Anatomy and Physiology	4

Course Descriptions

543-301 Nursing Fundamentals 2 Credits

This course focuses on basic nursing concepts that the beginning nurse will need to provide care to diverse patient populations. Current and historical issues impacting nursing will be explored within the scope of nursing practice. The nursing process will be introduced as a framework for organizing the care of patients with alterations in cognition, elimination, comfort, grief/loss, mobility, integument, and fluid/electrolyte balance.

Practical Nursing

543-302 Nursing Skills

3 Credits

This course focuses on development of clinical skills and physical assessment across the lifespan. Content includes mathematic calculations and conversions related to clinical skills, blood pressure assessment, aseptic technique, wound care, oxygen administration, tracheostomy care, suctioning, management of enteral tubes, basic medication administration, glucose testing, enemas, ostomy care, and catheterization. In addition the course includes techniques related to obtaining a health history and basic physical assessment skills using a body systems approach.

543-303 Nursing Pharmacology

2 Credits

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.

543-304 Nsg: Intro Clinical Practice

2 Credits

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.

543-305 Nursing Health Alterations

3 Credits

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.

543-306 Nursing Health Promotion

3 Credits

This course will cover topics related to health promotion in the context of the family. We will cover nursing care of the developing family, which includes reproductive issues, pregnancy, labor and delivery, post-partum, the newborn, and the child. Recognizing the spectrum of healthy families we will discern patterns associated with adaptive and maladaptive behaviors applying mental health principles. An emphasis is placed on teaching and supporting healthy lifestyles 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.

543-307 Nsg: Clin care Across Lifespan

2 Credits

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.

543-308 Nsg: Intro Clinical Care Mgt

2 Credits

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.

543-309 Working w/Special Populations

1 Credit

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).

543-310 Working in a Hospice Setting

1 Credit

This one credit course is intended to give a HealthCare student the opportunity to explore working with the hospice patient. Hospice care is care provided by an interdisciplinary team to patients (and their families) with life-limiting illness, with a goal of improving the quality of life at the end of life. The nursing assistant is an integral member of this interdisciplinary team. In this course the nursing assistant will learn about the history of hospice, the hospice philosophy, the nursing assistant role, and care of the dying patient. The externship component will include a shadowing experience with a hospice nursing assistant.

RADIOGRAPHY

Associate Degree

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.

Radiography

Course Name	Credits
Courses taken before semester 1	
526-158 Introduction to Radiography	3
526-168 Radiography Clinical 1	2
809-198 Introduction to Psychology	3
Semester 1	
526-149 Radiographic Procedures 1	5
526-159 Radiographic Imaging 1	3
526-197 Radiation Protection and Biology	3
526-192 Radiography Clinical 2 ¹	3
806-177 General Anatomy and Physiology	4
Semester 2	
526-170 Radiographic Imaging 2 ¹	3
526-191 Radiographic Procedures 2 ¹	5
526-193 Radiography Clinical 3 ¹	3
804-107 College Mathematics	3
Summer between year 1 and year 2	
526-199 Radiography Clinical 4 ¹	3
Semester 3	
526-194 Imaging Equipment Operation	3
526-195 Radiographic Quality Analysis	2
526-190 Radiography Clinical 5 ¹	2
801-196 Oral/Interpersonal Communication	3
809-196 Introduction to Sociology	3
Semester 4	
526-174 ARRT Certification Seminar	2
526-198 Radiography Clinical 6 ¹	2
526-189 Radiographic Pathology	1
801-195 Written Communication	3
809-195 Economics	3
526-196 Modalities	3
TOTAL CREDITS	70

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

801-195 Written Communication	3
801-196 Oral/Interpersonal Communication	3
804-107 College Mathematics	3
806-177 General Anatomy and Physiology	4
809-195 Economics	3
809-196 Introduction to Sociology	3
809-198 Introduction to Psychology	3

Course Descriptions

526-149 Radiographic Procedures 1 5 Credits

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.

526-158 Introduction to Radiography 3 Credits

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.

526-159 Radiographic Imaging 1 3 Credits

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.

526-168 Radiography Clinical 1 2 Credits

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.

526-170 Radiographic Imaging 2 3 Credits

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.

526-174 ARRT Certification Seminar 2 Credits

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. 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.

526-190 Radiography Clinical 5 2 Credits

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.

526-191 Radiographic Procedures 2 5 Credits

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.

526-192 Radiography Clinical 2 3 Credits

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.

526-193 Radiography Clinical 3 3 Credits

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.

526-194 Imaging Equipment Operation 3 Credits

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.

526-195 Radiographic Quality Analysis 2 Credits

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.

526-196 Modalities 3 Credits

Introduces radiography students to imaging modalities with an emphasis in computed tomography and cross-sectional anatomy.

526-197 Radiation Protection and Biology 3 Credits

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.

526-198 Radiography Clinical 6 Credits

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.

526-199 Radiography Clinical 4 3 Credits

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.

WELDING

Technical Diploma

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 to 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).

	Course Name	Credits
Semester 1		
442-315	Metal Fabrication-Structural ²	3
804-306	Shop Mathematics I	2
421-380	Blueprint Reading(Welding) ²	2
442-307	Gas Metal Arc Welding(GMAW) ²	5
442-308	Flux Cored Arc Welding (FCAW) ²	5
Semester 2		
442-316	Metal Fabrication-Sheet Metal ²	3
442-310	Shielded Metal Arc Weld (SMAW) ³	5
442-312	Gas Tungsten Arc Weld (GTAW) ³	5***
801-311	Communication	2
804-308	Shop Mathematics II	2
TOTAL CREDITS		34

¹Pre-requisite ²Co-requisite ³Pre- and co-requisites

General Education Courses Within Program

804-306	Shop Mathematics I	2
801-311	Communication	2
804-308	Shop Mathematics II	2

Course Descriptions

442-305 Metal Fabrication 2 Credits

This course is designed to provide students with the knowledge and skills required to fabricate simple projects or parts of a project found on engineering drawings. Metal fabrication will focus on the planning and execution of projects using the knowledge and skills already acquired during the first semester of the Welding Program. Written and illustrated descriptions by the student of how the fabricated project was accomplished will also be included in the units of instruction. The use and care of fabricating hand tools, along with safety, is stressed.

442-306 Welding Processes & Safety 4 Credits

This is an introductory course designed for students who desire to learn the theories and skills of welding. The course is a prerequisite for or must be taken concurrently with Gas Metal Arc Welding and Flux Cored Arc Welding. The course focuses on theory in the following areas: shop orientation, general shop safety, ANSI Specification Z49.1 Safety in Welding, Cutting and Allied Processes, manual and machine torch cutting equipment, power equipment setup operation and troubleshooting, principals and practices of Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), Submerged Arc Welding (SAW) and Metal Cored Arc Welding (MCAW). 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 are all units of instruction involved in the above areas.

442-307 Gas Metal Arc Welding(GMAW) 5 Credits

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.

442-308 Flux Cored Arc Welding (FCAW) 5 Credits

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.

442-309 Ind Weld Procedure,Codes&Specs 2 Credits

This is an introductory course designed for students who desire to learn the theories and skills of welding. The course is a prerequisite for or must be taken concurrently with Shielded Metal Arc Welding (non low hydrogen), Shielded Metal Arc Welding (low hydrogen) and Gas Tungsten Arc Welding. The course focuses on theory in the following areas: shop orientation, general shop safety, manual and machine torch cutting equipment, power equipment setup operation and troubleshooting, Shielded Metal Arc Welding (SMAW) and Gas Tungsten Arc Welding (GTAW) principles and practices. Students will explore industrial welding procedures, codes, and specifications such as ANSI Specification Z49.1 Safety in Welding, Cutting and Allied Processes, AWS D1.1 Structural Welding Code, ASME Boiler Codes and military specifications.

442-310 Shielded Metal Arc Weld (SMAW) 5 Credits

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. Library research, written assignments and tests, and basic metallurgy and certification preparation are all units of instruction involved in the above areas.

442-311 Shield Metal Arc Weld(Low Hyd) 3 Credits

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 Low Hydrogen electrode E7018. 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. Library research, written assignments and tests, and basic metallurgy and certification preparation are all units of instruction involved in the above areas.

442-312 Gas Tungsten Arc Weld (GTAW) 5 Credits

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.

442-315 Metal Fabrication-Structural 3 Credits

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.

442-316 Metal Fabrication-Sheet Metal 3 Credits

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 hammers 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.

421-380 Blueprint Reading(Welding) 2 Credits

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.

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.

CERTIFICATE: 99-9110

BUSINESS MANAGEMENT

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.

Course	Name	Credits
Semester 1		
102-110	Business Careers Planning	1
102-148	Intro to Business Organ & Mgmt	3
103-106	Intro to MS Office Suite	3
104-102	Marketing Principles	3
801-195	Written Communication	3
804-123	Math w/ Business Apps	3
Semester 2		
101-117	Accounting Fundamentals	3
102-115	Management Principles	3
102-137	Business Communications	1
102-160	Business Law	3
104-104	Selling Principles	3
116-193	Human Resource Mgmt	3
TOTAL CREDITS		32

CERTIFICATE: 99-9134

BUSINESS OFFICE SUPPORT PROFESSIONAL

Completion of the Business Office Support Professional will provide you with the skills necessary to provide day-to-day support for office management personnel. You will gain expertise in current business office technology and communication practices. You may apply many of these courses to an Associate Degree in Administrative Professional.

Course	Name	Credits
Semester 1		
102-137	Business Communications	1
103-106	Intro to MS Office Suite	3
106-140	Keyboarding	1
106-145	Inform Technology Essentials	3
106-181	Office Professionalism	3
804-123	Math w Business Apps	3
Semester 2		
106-143	Skillbuilding1	1
106-153	Admin Office Procedures1	3
106-155	Publication Design&Production	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Comm	3

CERTIFICATE

CPR & 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.

CPR & FIRST AID CERTIFICATE

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.

CERTIFICATE: 99-9203

HUMAN RESOURCE GENERALIST

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.

Course	Name	Credits
116-102	Employee Training & Development	3
116-103	Employment Law	3
116-108	Health, Safety and Security	3
116-116	Staffing Organizations	3
116-119	Labor & Employee Relations	3
116-168	Organizational Development	3
116-193	Human Resource Mgmt	3
TOTAL CREDITS		21

CERTIFICATE

COMPUTER HARDWARE SUPPORT CERTIFICATE

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.

Course	Name	Credits
631-100	Microcomputer Fundamentals	3
631-101	Troubleshooting Operating Systems	3
450-315	Customer Service Fundamentals	2
631-102	Microcomputer Hardware Service	3
450-316	Microcomputer Software Service	2
450-317	Troubleshooting Microcomputers	2
TOTAL CREDITS		15

* Participants must complete BTC's program admission process for certain certificates. Pre-requisite: Must be registered in the Computer Service Technician Program.

CERTIFICATE

Criminal Justice-FULL-TIME LAW ENFORCEMENT ACADEMY

Spring/Fall Semester

The Law Enforcement Basic Recruit Academy is a program for those that are interested in a career in law enforcement. The program is thirteen consecutive weeks totaling 520 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.

CERTIFICATE

Criminal Justice-PART-TIME LAW ENFORCEMENT 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 680-700 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.

IT-DESKTOP SUPPORT

Completion of the IT-Desktop Support Certificate provides you with the skills needed to answer support calls at a help desk and assist users on a corporate network. You will gain the expertise needed to assist users with their applications, use call-tracking software, document solutions and procedures, and resolve first-level hardware and software support calls for an IT department. You may apply many of these courses to an Associate Degree in IT-Networking.

Certificate Outcomes:

- Demonstrate customer service skills.
- Solve information technology problems.
- Provide end user support.
- Support computer networks.
- Manage desktop hardware.
- Manage desktop software.

Course	Name	Credits
150-120	Micro Operating Systems I	3
150-127	Enterprise Virtualization ¹	3
150-130	Network Design	3
150-131	Network Install/Troubleshooting ¹	3
150-133	Network Security ¹	3
154-113	Micro Hardware Applications	3
154-121	IT Service Fundamentals ¹	3
804-133	Math & Logic	3
TOTAL CREDITS		24

¹Pre-requisite

(12 Credits) CERTIFICATE: 99-9128

IT-JAVA DEVELOPER

Completion of the IT-Java Developer Certificate will advance your Java programming skills and improve your understanding of server-side and client-side applications. Prior knowledge of programming logic, Web development, database concepts and programming is recommended, but not required. You may apply these courses to an Associate Degree in IT-Web Analyst/Programmer.

Certificate Outcomes:

- Write moderately complex Web applications using current Enterprise Java technology.
- Build the client side of interactive Web sites using (X) HTML and scripting languages.
- Build the server side of interactive Web sites using ASP, NET, PHP or other server-side languages.
- Write moderately complex Web applications using current LAMP Microsoft technologies

- Process data in a relational database using SQL command set.
- Demonstrate work ethics and reliable behavior including, but not limited to, assuming responsibility for decisions and actions, utilizing time and stress management skills, and displaying initiative.

Course	Name	Credits
152-119	Intro to Prog w/JavaScript	3
152-142	Intro to .NET Programming	3
152-143	Intro to Java Programming ¹	3
152-145	Advanced Java Programming ¹	3
TOTAL CREDITS		12

¹Pre-requisite

CERTIFICATE: 99-9126

IT-.NET DEVELOPER

Completion of the IT-.NET Developer Certificate develops your Visual Basic .Net and C# programming skills. Server-side and client-side applications will be created using the ASP.NET framework. Prior knowledge of programming logic, Web development, database concepts, and programming is recommended, but not required. You may apply these courses to an Associate Degree in IT-Web Analyst/Programmer.

Certificate Outcomes:

- Build the client side of interactive Web sites using (X) HTML and scripting languages.
- Build the server side of interactive Web sites using ASP, NET, PHP, or other server-side languages.
- Write moderately complex Web applications using current LAMP Microsoft technologies.
- Demonstrate work ethics and reliable behavior including, but not limited to, assuming responsibility for decisions or actions, utilizing time and stress management skills, and displaying initiative.

Course	Name	Credits
152-119	Intro to Prog w/JavaScript	3
152-142	Intro to .NET Programming	3
152-161	Web Application Devel ASP.NET ¹	3
152-167	AJAX & JavaScript Web Develop ¹	3
TOTAL CREDITS		12

¹Pre-requisite

IT-WEB PROGRAMMING

Completion of the IT-Web Programming Certificate will enhance your knowledge and expertise in the field of Internet Web programming. Courses in this certificate will provide you with the skills needed to develop database-driven server and client-side websites. Prior knowledge of programming logic, Web development, database concepts, and programming is recommended, but not required. You may apply these courses to an Associate Degree in IT-Web Analyst/Programmer.

Certificate Outcomes:

- Write moderately complex Web applications using current Enterprise Java technology.
- Build the client side of interactive Web sites using (X) HTML and scripting languages.
- Build the server side of interactive Web sites using ASP, NET, PHP or other server-side languages.
- Write moderately complex Web applications using current LAMP Microsoft technologies.
- Process data in a relational database using SQL command set.
- Demonstrate work ethics and reliable behavior including, but not limited to, assuming responsibility for decisions and actions, utilizing time and stress management skills, and displaying initiative.

Course	Name	Credits
152-147	Relational Database Development	3
152-148	Relational Database Coding ¹	3
152-157	Website Development- XHTML/CSS	3
152-158	Advanced Website Development ¹	3
152-163	Relational Database Design	3
TOTAL CREDITS		15

¹Pre-requisite ²Co-requisite

MARKETING COMMUNICATION SPECIALIST

The Marketing Communication Specialist Certificate focuses on combining marketing promotion elements using the appropriate tools to communicate effectively to target markets. Regardless of occupation, professional communication is required to inform, persuade, or remind internal and external audiences about products, services, ideas, or events. This certificate is meaningful for individuals starting businesses or those seeking to advance business careers. These courses may also be applied to an Associate Degree in Marketing.

Certificate Outcomes

- Promote products, services, images, and/or ideas to achieve a desired outcome.
- Communicate professionally to obtain new customers and build customer loyalty to improve profitability.
- Design a variety of communications including presentations, print media, electronic media, and more using appropriate graphics and desktop publishing.

Course	Name	Credits
103-106	Introduction to Microsoft Office	3
104-102	Marketing Principles	3
104-109	Social Media Marketing ¹	3
104-117	Integrated Marketing Comm ¹	3
104-118	Marketing Design Concepts ¹	3
104-144	Desktop Design ¹	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Comm	3
TOTAL CREDITS		24

¹Pre-requisite

MARKETING GENERALIST

Completion of the Marketing Generalist Certificate will provide you with a foundation in marketing and website implementation and maintenance. This certificate will complement your business career as every business must apply marketing elements to achieve success. The knowledge and skills attained in this certificate are particularly helpful when starting a business or when seeking professional development. You may apply these courses to an Associate Degree in Marketing.

Certificate Outcomes

- Develop the foundational knowledge and core competencies necessary for today's marketing activities.
- Develop strategies to anticipate and satisfy market needs.
- Evaluate information through the market research process to make business decisions.

Course	Name	Credits
104-102	Marketing Principles	3
104-104	Selling Principles	3
104-108	Website Admin for Marketers ¹	2
104-109	Social Media Marketing ¹	3
104-117	Integrated Marketing Comm ¹	3
104-160	Marketing Research	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Comm	3
TOTAL CREDITS		23

¹Pre-requisite

PROJECT MANAGEMENT

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.

Course	Name	Credits
102-155	Introduction to Project Management	3
102-156	Project Leadership & Communication ¹	3
102-157	Managing Projects ¹	2
102-158	Project Management Capstone ¹	3
TOTAL CREDITS		11

¹Pre-requisite

PROJECT MANAGEMENT FOR MARKETERS

Completion of the Project Management for Marketers Certificate will enhance your skills in the art of long-term and short-term project management. You will gain the ability to organize, manage, track, budget, report and otherwise control your marketing projects using data-informed decision making processes. You may apply these courses to an Associate Degree in Marketing.

Course	Name	Credits
102-155	Intro to Project Management	3
102-156	Project Leadership & Communication ¹	3
102-157	Managing Projects ¹	2
104-102	Marketing Principles	3
104-160	Marketing Research ¹	3
TOTAL CREDITS		15

¹Pre-requisite

QUALITY SCIENCES

The Quality Sciences Certificate prepares individuals to work under the direction of quality engineers or supervisors to perform a variety of tasks in a modern and fast-paced manufacturing and engineering environment. Quality practitioners analyze and solve problems, prepare inspection plans and instructions, select sampling plan applications, prepare procedures, perform audits and apply fundamental statistical methods for process control. They work with internal and external customers and suppliers to identify expectations and determine satisfaction levels; quality principles for products and processes such as monitoring,

measuring and continuous improvement; quality standards, requirements and specifications; meeting management; and team development.

This program is designed with the working adult in mind. Many courses are offered in either self-paced or web-enhanced formats as well as a traditional classroom setting.

While not a requirement it is recommended for students pursuing the Quality Sciences Certificate to have a good working knowledge of basic computer concepts including word processing and spreadsheet applications, directory and file management and Web and email familiarity.

Course	Name	Credits
421-385	Blueprint Reading	2
444-301	Metrology	2
444-304	GDT Interpretations	1
623-155	Statistical Process Control	3
625-101	Foundations of Quality	3
809-103	Thinking Critically and Creatively	3
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
801-197	Technical Reporting	3
804-107	College Mathematics	3
804-189	Introductory Statistics	3
TOTAL CREDITS		29

CIVIL ENGINEERING TECHNICIAN

Associate Degree

Offered as a shared program with Gateway Technical College, this program is designed with three different emphases to choose from: Architectural/Structural, Public Works and Survey.

The first year of the program is the same for all three emphases. In the second year, you specialize. The first year allows you to become exposed to and develop a basic understanding regarding the many aspects of the profession.

First year classes are offered both days and evenings. Second year classes are offered mostly evenings and Saturdays (allowing those who have secured jobs to hone their skills and showcase their talents). However, classes are also offered in a NODAL* format-distance education at its best. Classes are taught at Gateway Tech, but students can take the lab in room 1106 on BTC's Central Campus. Also the use of CDs allow each student to study at their own pace and review at their leisure. Only two classes would need to be taken on-site, which could be done at Gateway's Elkhorn Campus. Those classes are Land Survey and Conflict Resolution.

NUCLEAR TECHNOLOGY

Associate Degree

A Lakeshore Technical College program offered in partnership with Blackhawk Technical College. For information call 608-757-7710.

The increasing use of radiation and radioactive materials in today's world has created a demand for nuclear technicians. This demand is expected to remain high for years to come. The Nuclear Technology program offers students a unique opportunity to obtain the specialized training in demand by businesses and organizations licensed to utilize radioactive materials. It is also an excellent springboard for a four-year degree in the high demand fields of Health Physics, Radiation Safety and Nuclear Engineering.

Nuclear technicians have a variety of career opportunities at businesses such as nuclear power facilities, radioactive waste handling facilities, radiopharmaceutical companies, universities and national laboratories, medical facilities, U.S. Department of Energy sites, hospitals, or emergency management organizations.

About Shared Programs

The Nuclear Technology program is a shared program between Lakeshore Technical College (LTC) in Cleveland, WI and Blackhawk Technical College. Classes are offered in traditional classroom settings and by way of Interactive Television (ITV) methods to link the two technical colleges. For flexibility, some classes may be offered as online courses, using established distance learning methods.

Employment Potential:

- Nuclear Power Facilities
- Radioactive Waste Handling Facilities
- Radiopharmaceutical Companies
- Universities and National Laboratories
- Medical Facilities
- U.S. Department of Energy Sites
- Hospitals
- Emergency Management

Program Outcomes:

- Work safety within industrial and radiological hazard areas.
- Understand and communicate nuclear technology-related concepts effectively in both oral and written formats.

- Diagnose equipment requiring electrical or mechanical repair and carry out preventive maintenance procedures.
- 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 your knowledge in a variety of related occupational jobs such as a reactor plant operations, maintenance, quality assurance, etc.