BLACKHAWK TECHNICAL COLLEGE

CATALOG 2005-06

Take A Closer Look At What Can Do For You!

CATALOG
2005-06

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 Prairie Road, P.O. Box 5009, Janesville, Wisconsin 53547-5009, or phone 608•758•6900.

Blackhawk Technical College reserves the right to make changes in courses and regulations published in this catalog without obligation or prior notice.

Information Hotline at:

608•757•7710 or TTY 608•743•4499

Phone:

608•758•6900

Website:

www.blackhawk.edu

6004 Prairie Road • County Trunk G • P.O. Box 5009 • Janesville, Wisconsin 53547

"BTC is an equal opportunity/equal access educator/employer."

Blackhawk

Technical College

BTC...Something To Fit Your Every Need!

BLACKHAWK
TECHNICAL COLLEGE

TABLE OF CONTENTS

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 approximately 50 programs leading toward an associate degree, technical diploma, certificate or apprenticeship. While the majority of classes are held at the Central Campus, classes are also offered at the Aviation Center at the Rock County Airport, the Center For Transportation Studies located north of Janesville, and at the Monroe Campus. An adult education center is also open in downtown Beloit, plus BTC has classrooms at the Rock County Job Center.

Modern, up-to-date facilities help to serve approximately 14,000 students annually—about 6,000 credit and 8,000 non-credit students each year in areas such as industrial and agricultural occupations, service occupations, business, 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. Schedules are available at the switchboard at BTC's main entrance.

Overview of Catalog

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.

This catalog is published by Blackhawk Technical College's Community Relations 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 & Development

In 1911, six years before the use of federal funds for the promotion of vocational, technical and adult education throughout the nation, Wisconsin set up a special Board of Vocational 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 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.

Hours Of Operation

The general operating hours of Blackhawk Technical College are 7 a.m. to 10 p.m. Monday through Thursday; 7 a.m. to 5 p.m. Friday; and 8 a.m. to 2 p.m. Saturday. However, hours may vary for an individual department or division, such as the Children's Learning Center, or even 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.

Funding

The postsecondary and adult vocational education programs at BTC anticipate receiving federal funding in 2003-2004. 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 is led by a nine-member Board of Directors *(there are currently two vacancies)*. The volunteer Board, which is appointed by the County Board Chairs of Rock and Green Counties, must consist of a cross-section of representatives from geographic, occupational, and ethnic/racial backgrounds. Board members are appointed based on their interest in helping to keep BTC strong and meeting individual students' and employers' needs while balancing the needs and desires of area taxpayers. Members serve for a three-year term with re-appointment possible.

Thomas A. Westrick
Milton

Peggy Sebastian
Janesville

Eric A. Larson Ed. D.
President, BTC

Chris Olson
Janesville

Rich Bostwick
Janesville

Kevin D. Leavy
Beloit

James Munro
Monroe

Lauri Steeber
Janesville

Our Mission and Purposes

The faculty, staff, and administration of Blackhawk Technical College, an institution of higher education, provide for the future of our community through excellence in technical education. We achieve this mission through:

Education for Employment by offering comprehensive occupational skills training which enables students to participate in the work force through Associate Degree, Technical Diploma, Certificate, and Apprenticeship programs;

Training, Retraining, and Upgrading for entry, retention, or advancement in a vocational or technical field;

General Education in core knowledge, skills, and attitudes which enable individuals to integrate learning into educational programs for personal and professional success;

Basic Education to help students achieve levels of proficiency to succeed in an increasingly complex society;

Economic Development by providing customized training and technical assistance to business and industry to foster the expansion of employment opportunities;

Equal Opportunities that remove barriers created by stereotyping and discrimination;

Personal Development to assist individuals who wish to enjoy personal growth;

Student Services which assist and support students to fulfill educational and occupational life goals as they relate to the current demands of the work force;

Interagency Cooperation for effective liaison between and among various private and public organizations;

Articulation and Transfer Opportunities with secondary schools and other educational institutions to facilitate the transition of students;

Community Service to provide benefits that help to build a strong and viable community.

Our Philosophy

The faculty, staff, and administration at Blackhawk Technical College believe that access to quality education and relevant hands-on experience are the first steps 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 a critical factor in determining success, it also recognizes that today's working environment demands social, scientific, and interpersonal skills which help the student to function in many other dimensions: personal, social, and cultural. Therefore, BTC recognizes the valuable contribution to personal and professional success made through its General Education course offerings.

Finally, Blackhawk Technical College 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 today. As a result, your 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.

BTC VISION

"BTC: Opening Doors to Life-Long Learning"

- Encouraging every student to develop his/her full potential
- Responding to the needs of the community and workforce
- Training people for employment
- Exploring, developing, and implementing new technology
- Providing educational opportunities to meet student needs
- Recognizing the impact of ideas and actions on others

BTC VALUES

BTC: Facing the future by promoting Trust, Diversity, Teamwork, & Empowerment"

Facing the future by promoting Trust

- Acting with integrity and consistency
- Valuing yourself and others positively
- Acting with sincerity and honesty
- Keeping promises and following through
- Respecting the confidences of others

Facing the future by promoting Diversity

- Embracing the opportunities in diversity
- Seeking and celebrating uniqueness and differences
- Appreciating different viewpoints

Facing the future by promoting Teamwork

- Cooperating and considering the impact on all stakeholders
- Working together to provide better service
- Listening and participating actively

Facing the future by promoting Empowerment

- Accepting responsibility for actions and outcomes
- Encouraging positive interactions and creative solutions

Civil Rights Legislation

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

Individuals applying for or receiving assistance through these schools who believe that there is 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, phone 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 Prairie Road, P.O. Box 5009, Janesville, Wisconsin 53547-5009, p: 608•757•7773.

Approval/Accreditation

Blackhawk Technical College is accredited by the Higher Learning Commission, 30 N. LaSalle St., Suite 2400, Chicago, Illinois 60602, phone (800) 621-7440. Accreditation is a non-governmental, voluntary means for an educational institution to assure those within the institution, the students, the general public, and state and federal agencies that the institution has clearly-defined objectives, an appropriate structure, and staff and resources to accomplish those objectives.

Blackhawk Technical College holds approval(*) or accreditation(•) by the following:

* Wisconsin Technical College Board
• Higher Learning Commission and a member of the North Central Association
* Wisconsin State Board of Nursing
• National League for Nursing Accrediting Commission
* Council on Dental Education/American Dental Assoc.
* Wisconsin Approval Board *(for Education of Veterans & War Orphans)*
* Federal Aviation Administration
* American Dietetic Association
* Division of Community Services
• Commission on Accreditation in Physical Therapy Education
• Commission on Accreditation of Allied Health Education Programs
• American Culinary Federation Accrediting Commission
* National Automotive Technicians Education Foundation *(NATEF)–National Institute for Automotive Service Excellence (ASE)*
• Commission on Dental Accreditation
* Wisconsin Department of Justice–Division of Law Enforcement Services
* Wisconsin Department of Health and Family Services: Caregiver Registry and Investigation Unit
• Joint Review Committee on Education in Radiologic Technology

COLLEGE FACILITIES

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 programs, 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.

Aviation Center

The Blackhawk Technical College Aviation Center is located at the Southern Wisconsin Regional Airport on U.S. Highway 51 between the city limits of Beloit and Janesville [at 4618 S. Columbia Drive, Janesville, WI. 53546-9120, phone 608•757•7743.]

The district-owned facility includes a 160-by-120-foot hangar featuring classrooms, a spray booth, shops, laboratories, student lounge, technical library, and faculty offices.

The Aviation Center is certified as an Airframe and Powerplant Mechanics School by the Federal Aviation Administration.

Beloit Learning Center

The Beloit Learning Center is conveniently located in downtown Beloit at 444 East Grand Ave., Beloit, WI 53511, (phone number: 608•757•7669), in the building's lower level. The Center provides basic academic instruction, remedial education, and English as a Second Language (ESL) classes

Center For Transportation Studies

Located immediately (about one-quarter of a mile) west of the intersection of highways 14 and 51 north of Janesville [at 1740 Highway 14 West], this 30,000 square-foot newly remodeled facility houses two large shops for the Diesel and Heavy Equipment Technician and Automotive Technician programs; three classrooms; library; microcomputer lab; and a student lounge. Agricultural and apprenticeship classes are held at the center, as well as automotive, diesel, many non-credit offerings in computer applications and other areas of interest. Ample parking is available with access off U.S. Highway 14.

Central Campus

The 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 Highway G) and Highway 51.

This comprehensive technical college facility comprises over 200,000 square feet. It includes instructional classrooms, shops and labs for accounting, marketing, word processing, administrative assistant, legal secretary, fire science, criminal justice, child care services, HVAC/R, welding, and machine tool. Also located on the Central Campus is a technical center integrating labs for electronics, electro-mechanical and mechanical design; and a health occupations complex for nursing, nursing assistant, dental assistant and hygiene, radiography, and health unit coordinator. A technical library; media production and telecommunications center; child care center; bookstore; and food service, with seating for 600 are also housed on the Central Campus. Seminar and teleconferencing facilities are also available.

A Student Services Center is available to provide students with a variety of assistance programs. Facilities include offices for guidance, admissions and registration, placement, financial aids, veterans' affairs, minority student services, and student activities. Vocational testing and career assessment are available through the Student Services' Career Center. Facilities for individualized learning and remedial education are also located at the Central Campus.

Parking, accommodating approximately 1,200 vehicles, is available on the Central Campus, and bus service from Beloit and Janesville is also provided for students' convenience. This is described in further detail in the General Information section.

Monroe Campus

The Monroe Campus of Blackhawk Technical College is located just off Highway 11 at 210 Fourth Avenue, Monroe, WI 53566, phone 608•328•1660. This friendly, full-service, handicapped-accessible campus has 4 computer labs equipped with state-of-the-art computer equipment, a distance learning labs 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 vocational prep courses and GED/HSED testing services. Over 150 continuing education courses are offered each year at the Campus. A full-time counselor provides students with academic advising, support and career planning assistance. BTC staff works 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.

Outdoors Unlimited Ropes Challenge Course: **Experiential Learning at Its Best**

Located at the northeastern edge of the central campus of BTC, an experiential learning site known as the "Ropes Challenge Course" is available to area businesses, organizations, community groups as well as BTC staff and students. The experiential learning activities conducted on the "Course" help individuals and groups build skills in the area of leadership, teamwork, awareness, trust, problem solving, strategic planning, confidence and communication. With the training being coordinated through BTC's Business & Community Development Division (BCD), events and training seminars can be customized to meet the goals of individuals and organizations. Pricing will vary depending on the users needs.

The "Ropes Course" includes both low and high structures such as the Spider Web, Wild Woozy, High Y, Pamper Pole and Climbing Wall. In addition to the permanent structures, numerous portable activities are available to choose from. The mix of mentally and physically challenging elements is designed to provide opportunities for individuals and teams to learn about how they handle risk, challenge, and fear while practicing skills in teaming, problem solving, communications, and so on. Portable learning activities provide the convenience of allowing businesses and organizations to schedule events at their own sites.

Contact BCD today to discover how this exciting approach to training, personal, and corporate change will work for you. 608•757•7630

Entrance Requirements

Blackhawk Technical College maintains an open-door admissions policy for all prospective students. This means that anyone can enroll in courses and have the opportunity to learn new skills or improve existing skills. Admissions requirements may vary from program to program, but generally include high school graduation, GED/HSED, or ability to benefit as determined by standardized tests.

Assessment

All associate degree and technical diploma programs at Blackhawk Technical College require pre-entry assessment. Most pre-entry assessments are advisory only; a limited number have mandatory cut-off scores.

In most cases students entering Blackhawk Technical College will take the Compass assessment instruments. The Compass is an untimed assessment taken on computer. The Compass is a basic skills assessments in reading, language usage, and numerical skills. A $10.00 fee will be collected at the assessment site. You will need to complete the Compass assessment unless you have graduated from a four-year college or university, earned an Associate Degree at a Wisconsin Technical College, or completed the ACT with a composite score of 15 or higher. *(The Dental Hygiene, Physical Therapist Assistant, Nursing and Radiography program have specific requirements for admission. See program information for details)*

How to Apply

There is an admissions process for those who elect to enter a program of training. The applicant is required to communicate with the admissions office to facilitate the process. The process is designed to move the student into the college in a positive, helpful manner through the following steps:

1. To obtain an application form, call 608•757•7710. Forms are also available from high school counselors and at each campus. Apply online at www.blackhawk.edu
2. Pay a $30 non-refundable application fee. *(The check should be made payable to Blackhawk Technical College.)*
3. Submit educational transcripts. These include high school, GED/HSED, technical college, four-year college or university.
4. Entrance testing may also be required.

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. A late fee may be charged. Applications received after noon of the first Friday following 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.

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, you will be notified by the Admissions Office. You can choose to remain on the wait list or withdraw your application. Students should contact the program advisor or counselor for additional information about the process.

Educational Agreements

A joint educational agreement exists between Rock Valley College, Rockford, Illinois and BTC. This agreement expands the number and types of programs available to BTC District residents. A list of approved programs is available at the Student Services office.

Youth Options

The Youth Options Program allows all public high school juniors and seniors who meet certain requirements to take postsecondary courses at a Wisconsin Technical College, a UW institution, or one of the state's participating private, non-profit institutions of higher education. The program opens the door to greater learning opportunities for students who are considering a technical career, students wishing to begin college early, or students who want to prepare to enter the workforce immediately after high school graduation. Further information about this program can be obtained at area high schools or from the BTC Student Services office.

High School Articulation

Blackhawk Technical College and high schools in Rock and Green Counties now make it possible for high school students to earn an associate degree or technical diploma in less time. High school students can be awarded Blackhawk Technical College credits by enrolling in high school courses which have been approved for advanced standing. Some courses may have additional requirements. Students are advised to check with their high school guidance counselor or the BTC School-to-Work Coordinator.

A number of courses in general education, business, and technology/industry may qualify for advanced standing. Basic requirements for the transcripted credit and advanced standing program may vary from high school to high school. Students wishing to apply for college credit or obtain a complete listing of the high school courses that qualify under the BTC agreement should contact their high school guidance counselor.

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 a higher tuition cost. A limited number of waivers may be granted.

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.

Tuition and Fees

The tuition fee per credit at Blackhawk Technical College is established by action of the Wisconsin Technical College Board and is subject to possible revision at any time. In addition, many course offerings carry a separate consumable materials fee, services fee, and/or special fees. Please consult the Student Services Office at BTC to determine correct fees.

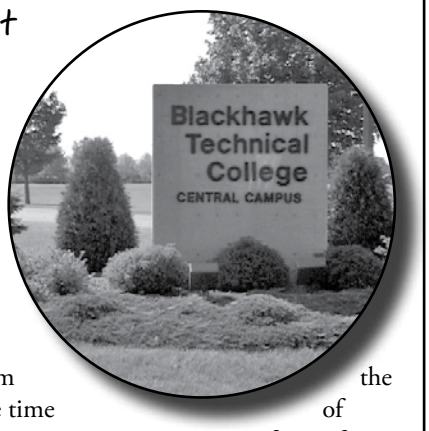
All tuition and fees are due at the time of registration unless you have been approved for deferred payment. The fees payable at registration include:

Tuition–Tuition rates are established by the Wisconsin Technical College System (WTCS). Local students and Wisconsin students pay the same rate, while out-of-state students are required to pay an additional tuition charge. If you drop a course or withdraw early, tuition may be refundable according to the WTCS refund policy.

Material and Laboratory Fees–An extra fee will be assessed on each credit to defray the cost of materials used in the course. The amount of the fee will be determined by the Wisconsin Technical College System (WTCS) and will vary by the type of course. The fee may also be refundable in accordance with BTC policies should you drop or withdraw from a course early.

Student Activity Fee–All students will pay a per credit activity fee. This fee is used to support activities and entertainment for students.

Deferred Payment



You may pay tuition and fees in installments if you are unable to pay all costs at the time of registration.

If you want to pay tuition and fees in installments, you should request a Tuition/Fee Deferment Form from the Registration Office at the time of registration. You will pay a portion of your fees at that time as well as a non-refundable processing charge of $20.00. No deferment of tuition or fees will be authorized without completion of the Tuition/Fee Deferment form.

You will be responsible for paying all fees in accordance with the payment schedule. If you fail to complete your tuition and fee obligation on time, you will be withdrawn from your program of study and you will be assigned a "W" (withdrawn) grade for all courses. This withdrawal will occur after the 29th day of the semester.

Financial Aid

Students are encouraged to make contact with this office as soon as possible. The Financial Aid Office can help a student who may need additional money to attend BTC. Financial assistance available to you may include grants, part-time employment, scholarships, and 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.

Although Blackhawk Technical College assumes that a student and his/her family will make every effort to finance his/her education, situations exist where a student needs assistance in order to attend the school.

To be considered for any type of available financial assistance, a Free Application for Federal Student Aid (FAFSA) is required. These forms are available at the Financial Aid Office. Students may also apply online at: www.fafsa.ed.gov Students are encouraged to apply for financial aid when they and/or their parents file tax returns. For further information, contact the Financial Aid Office at 608•757•7664. Financial aid assistance is also available at the Monroe Campus.

Applying for financial aid should be completed months before the start of the academic year. BTC has no deadline for applying, although some types of aid are awarded quickly and may not be available if you submit your application late.

TYPES OF FINANCIAL ASSISTANCE

Pell Grant

The Pell Grant, unlike a loan, does not have to be repaid. It is a federal grant upon which all other aid is built. Assistance is given on the basis of need and may range from $400 to $4,050 per year. Pell Grants may be paid to students attending less than half time.

Wisconsin Higher Education Grants (WHEG)

The WHEG program can provide a grant to supplement the Pell program. To qualify, the person must be a Wisconsin resident for at least one year and have financial need. Grants can range from $250 to $960 for students. The Higher Educational Aids Board of Wisconsin determines eligibility based on the financial aid application. Students must be enrolled at least half-time (six credits) in order to be eligible.

Supplemental Education Opportunity Grant (SEOG)

The SEOG program is available if the person is enrolled on a half-time or more basis and has financial need. The most needy students are funded first. Individuals must qualify for a Pell Grant to be eligible. Assistance ranges from $200 to $400 per year.

Federal Work Study Program

In the Federal College Work Study program, a student is provided part-time employment. Work study is based upon financial need. A student may work a maximum of 25 hours per week. "On-the-job" performance is a criterion for continuation. Summer work study is also available on a full-time basis for those who qualify.

Minority Retention Grant

The Minority Retention Grant is available to those minority students who qualify through the Higher Educational Aids Board. 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. The grant ranges from $500 to $2,500 per academic year. Application is made through the Minority Affairs and Financial Aid Offices on campus, located in the Student Services office.

TIP

A state grant used to supplement the WHEG Program, TIP is targeted for disadvantaged, first-year BTC students and ranges from $600 to $1,800. Continuing students may receive up to $1400.

Native American Grants

These grants are available to students who are at least 25 percent Native American and show financial need. Application is made through your tribal office.

Private Scholarships

Many private scholarships are available to BTC students. Information may be obtained through the BTC Financial Aid Office.

International Students

International students may file for financial aid given the following requirements:

1. U.S. permanent resident and have an Alien Registration Card (I-151 or I-551)
2. Other eligible non-citizen with a Departure Record (I-94) from the U.S. Immigration and Naturalization Service showing any one of the following designations:
   a. Refugee
   b. Asylum Granted
   c. Indefinite Parole and/or Humanitarian Parole
3. Other eligible non-citizen with a Temporary Resident Card (I-688).

Contact the Financial Aid Office on campus for further info.

Other Grants or Scholarships

There are a number of other grants and scholarships available through the Student Services office, the Blackhawk Technical College Foundation, Inc., and the Blackhawk Tech Association (BTA). Individuals are encouraged to check with those offices located on the Central Campus (BTA and Foundation offices in the Administration Building) for further information.

Veterans/Military Programs

A variety of programs are available if you have participated in the Montgomery GI Bill program while serving in the military. You may also be eligible for Reserve benefits if you are currently an active member of the Reserves or National Guard. Dependents of disabled or deceased veterans may be eligible for benefits also. State programs in the form of tuition and fee reimbursement and part-time study grants may be available for Wisconsin veterans. National Guard members may be eligible for the National Guard Tuition Grant. Please contact your local County Veterans Service Officer or the BTC Veterans Office (Financial Aid Office) on campus. Following are some of the more common veterans' assistance programs.

Student Loans

The Federal Family Educational Loan (FFEL) provides low-interest loans (2.77% capped at 8.25%) through participating lenders. Students must first complete the Free Application for Federal Financial Aid. If the student is eligible for a Stafford Loan, he/she will be notified with a financial aid award notice. Students may also be eligible for the unsubsidized Stafford Loan. The Stafford Loan is based on need, whereas the unsubsidized Stafford and PLUS Loans are non need-based loans. The PLUS Loan is an auxiliary type of loan that provides additional funds for educational expenses. PLUS Loans are available to parents of dependent students only. First time borrowers are required by law to wait thirty days for the disbursement of their loans and must complete entrance loan counseling and sign the necessary forms and promissory note.

Students' Rights and Responsibilities

As a financial aid recipient, you have the right to ask questions and understand how your aid package was determined and prepared. You also have the right to expect that your financial information will remain confidential and will not be released without your written permission. See the Financial Aid Office for additional information about your rights.

Financial aid students at BTC also have certain responsibilities. **These include:**

- filing all forms in a timely manner and completing your file before any aid is disbursed
- Using aid received solely for educational purposes
- Notifying the Financial Aid Office of any changes in enrollment status, financial status, or any private scholarships obtained outside of the financial aid office
- Maintaining academic progress
- Repaying all aid you received after withdrawing or dropping out of classes
- Providing complete and accurate information to the Financial Aid Office
- Registering with the Selective Service if you are a male between the ages of 18 years and 26 years.

You are responsible for reporting all information to the Financial Aid Office at BTC.

Disbursement of Financial Aid

All financial aid is disbursed through the Registration Office on a rolling basis.

Tuition and fees are deducted from PELL and SEOG grant checks before disbursement. All fees are expected to be paid before any remaining financial aid is paid.

Return of Title IV Financial Aid

Federal Law now states that if you receive Federal Financial Aid and withdraw or drop-out of all your classes before completing 60% of the semester, you will have to return some Federal Aid that you received. If you receive all "F's" for the semester, you will be required to repay a portion of your Federal Financial Aid also. Failure to attend any of your classes will require you to repay 100% of all the aid you received.

Please contact the Financial Aid Office for a copy of the Title IV Refund Policy.

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 a variety of scholarship opportunities. Material gifts as well as monetary gifts are welcomed by the Foundation. Contact the Community Information Office, located in the Administration Building on the Central Campus or call 608•757•7769.

REGISTRATION & RECORDS

Attendance

The purpose of education is to develop knowledge and skills in students. This can best occur through the act of involvement between you as a student and your teachers. For this reason, attendance in scheduled classes is important to your success.

Most faculty have attendance policies for their courses. You are strongly urged to attend all class periods as scheduled. When you fail to attend classes regularly and when poor attendance endangers satisfactory completion of the course, the instructor will notify the appropriate counselor so that you can be contacted regarding attendance concerns.

If you decide to withdraw, or if you cannot complete the term, you will need to contact the Registration Office to officially withdraw from your class(es). If you do not officially withdraw, you will receive the grade of "F."

Registering for Classes

Registration is the process of enrolling for classes. Time schedules which include registration dates are available prior to registration. 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.

You are not completely registered until all fees have been paid or you have signed a deferred payment agreement. 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.

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 sent to you providing specific procedures to be followed including the date and time of registration, estimated cost, and other applicable information.

Full-Time/Part-Time Status

A full-time student is someone taking 12 or more credits during a semester. For summer sessions, it is someone who is taking six or more credits.

A part-time student is one taking less than 12 credits per semester or fewer than six credits during the summer session.

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 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. Students electing audit status will be accepted only after all credit students have been accepted.

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. Special options are available for senior citizens. Please call for more information.

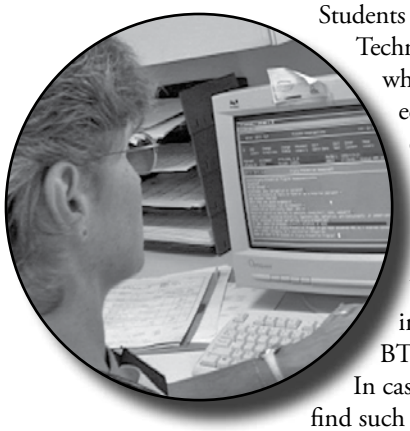
Credit for Prior Learning

A student enrolled at Blackhawk Technical College may obtain credit for prior learning by:

- Transferring from another nationally or regionally accredited postsecondary institution;
- Completing a prescribed school or work-based learning experience while in high school;
- Completing a registered apprenticeship;
- Demonstrating competency in a subject by passing a district developed or national examination;
- Providing evidence of previous work experience, education or training, or other prior learning comparable in content and level of rigor to the specific technical college course or courses.

Students begin the process of obtaining Credit for Prior Learning by meeting with a counselor or program advisor.

UW/WTCS Policy on Credit Transfer



Students enrolled in the Wisconsin Technical College System who wish to continue their education in the University of Wisconsin System may be eligible to transfer credits toward a bachelor's degree in the following ways:

UW institutions may accept in transfer up to fifteen (15) BTC general education 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.

Special Partnerships With Upper Iowa, Franklin Universities

Blackhawk Technical College has special partnerships with both Upper Iowa University and Franklin University. Upper Iowa has an office on BTC's Central Campus and offers most of their classes at BTC's facilities during evenings and weekends. These courses are designed to lead to a Bachelor's degree in any of several different majors. BTC's arrangement with Franklin University allows students an online degree completion program, combining on-campus classes at BTC with online courses through Franklin. Contact Franklin at 888•341•6237 or visit www.alliance.franklin.edu.

Transfer of Credit From BTC

One of the primary purposes of BTC is to provide the knowledge and skills related to occupational preparation. BTC programs are not intended to be the first years of a baccalaureate program. However, credits earned in various BTC programs may be transferable to a number of colleges and universities offering baccalaureate degrees.

BTC has written transfer agreements with a number of private and public four-year colleges and universities. BTC counselors have information regarding institutions which accept BTC credits. In all cases, the granting of such credits is at the discretion of the accepting college or university. Therefore, it is essential that you consult with your counselor regarding credit transfer.

Selected Blackhawk Technical College courses will transfer to the following schools:

- Alverno College
- Bellin College of Nursing
- Cardinal Stritch College
- Edgewood College
- Franklin University
- Marian College
- Marquette University
- Milwaukee Institute
- Mount Senario College of Art & Design
- National–Louis University
- Rockford College
- Rock Valley College
- St. Norbert College
- UW-Green Bay
- UW-LaCrosse
- UW-Madison
- UW-Milwaukee
- UW-Oshkosh
- UW-Parkside
- UW-Platteville
- UW-River Falls
- UW-Stevens Point
- UW-Stout
- UW-Whitewater
- Upper Iowa University

Course Drops/Adds/Withdrawals

You can change your program schedule by dropping, adding, or withdrawing from classes. However, such changes are not encouraged because of the impact the change can have on your financial aid eligibility and your graduation status. Changes in your program schedule should only be made after careful consideration and consultation with your counselor.

Schedule changes can occur during the school year, but certain guidelines should be followed. For instance, it is not advisable to add a new class after the third week of the semester. Also, you may not withdraw from a class when less than 20 percent of a class remains. In the case of extenuating circumstances, you may obtain written permission from the appropriate Dean to withdraw.

If an agency or program (e.g., Workplace Development, Wingspan, Southwest Wisconsin Workforce Development Board) is helping support your educational expenses, you may be required to have your schedule change approved by the agency or program staff.

If you add a class, you will be required to pay all additional tuition and fees at that time. If you are dropping or withdrawing from a class, you may receive a refund consistent with the WTCS refund policy. Any refund will be mailed out to you within two weeks.

It is particularly important for you to follow the procedures if you are dropping a class because if you are not officially withdrawn, you will receive an "F" for that class.

Refund Policy

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

100% Refund
If a student applies for a refund before the first class meeting that the student is scheduled to attend, 100% of student fees shall be refunded.

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

80% Refunds
80% of all applicable student 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.

60% Refunds
60% of all applicable student 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.

0% Refunds
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.

In order to receive a refund, except in cases when BTC cancels or discontinues a course, you must request the refund. BTC will issue the refund within two weeks of your request. A charge per course may be retained to help defray processing expenses.

Exceptions to this policy may be made in the case of death, extended illness, or other extenuating circumstances determined appropriate by the Program Counselor.

Grades/Academic Standards

Students are expected to maintain a high level of scholarship. A minimum of one hour of outside preparation is usually required for each class period at the technical level. In associate degree courses, an average of two hours per credit may be expected. Grades are recorded at the end of each semester on the following basis:

Grades	Description	Points
A	Excellent	4.00
A-	Excellent	3.67
B+	Above Average	3.33
B	Above Average	3.00
B-	Above Average	2.67
C+	Average	2.33
C	Average	2.00
C-	Average	1.67
D+	Below Average	1.33
D	Below Average	1.00
D-	Below Average	.67
F	Failure	0
I	Incomplete	0
W	Withdrawal	0
AU	Audit	0
TR	Credit Granted	0
PR	Test Out	0

Grades and Grade Point Averages (GPA) serve as a measurement of your success while enrolled in classes at BTC. Grades are assigned and progress reports are issued at the end of each semester. 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. An overall 2.0 minimum 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 above. It is the student's responsibility to consult with his/her instructors as to his/her progress.

Incomplete Course Work

A grade of "Incomplete" (I) may be assigned by your instructor when your course work is of passing quality and represents a significant portion of the requirements for a final grade, but is incomplete for a good cause as determined by the instructor. Good cause may include illness, serious personal problems, an accident, a death in the immediate family, a large and necessary increase in working hours, or other situation of equal gravity. If these situations occur when 20 percent or more time remains in the class, you should consider withdrawing from the class. If you are failing a course, you cannot ask for an "Incomplete" to avoid receiving an "F."

It is your responsibility to maintain contact with the instructor and to turn in all required work within the designated time (not to exceed one year). Any extensions beyond the maximum year of allowed time must be initiated by you and will be considered by the instructor on an individual basis. The instructor will complete and file a Grade Change form when all required work is completed.

Mid-Term Grades

Mid-term grades are issued in an effort to provide students with early feedback about academic progress. Mid-term grades are available on www.blackhawk.edu after the eighth week of the semester. Letter grades of "S" and "U" are issued. An "S" indicates that you are currently performing at a "C" or higher in the course. A "U" indicates that you are currently performing at a "C-" or lower in the course.

Program Graduation and Persistence Rates

Blackhawk Technical College, along with all colleges and universities, is required by federal regulation to disclose information regarding program graduation and persistence rates. This information, as well as other informative materials about job opportunities and program placement rates, is available to you from the Student Services Office. Stop in and ask for your copy of this report. A copy of the information is also available in the BTC Library.

GRADUATION

Three types of recognition ceremonies are held at Blackhawk Technical College:

Formal Graduation Ceremony

A moment of pride for any student is graduation day. Graduation is recognition that you have accomplished something of importance that will have meaning for years to come. Graduation exercises are held annually in the spring. Students who meet all program requirements may be invited to participate.

Included are individuals who have completed 12 credits of formalized training (certificate, diploma, degree). Individuals or groups who have not met the 12-credit formalized training component may petition the review committee on an annual basis for inclusion in the formal graduation ceremony.

In order to participate in the graduation ceremony, you must apply for graduation and pay a nominal graduation fee in order to have your name listed on the graduation program. A minimum 2.0 GPA is required for graduation.

Students are required to wear caps and gowns for the graduation ceremony. Information on the purchase of caps and gowns will be sent to you in early spring.

BTC can provide reasonable accommodations for students and guests participating in graduation activities. If you or your guests require a special accommodation, you should contact the Student Services Manager at least two (2) weeks before the graduation ceremony.

High School Equivalency Completion Ceremony

Included are all individuals who have completed their high school diploma or equivalent.

Recognition Ceremony

This is available to any group that has completed a formalized training component.

Review Committee

A three-person committee will be responsible for reviewing requests for inclusion in the formal graduation ceremony. The committee will consist of the Student Services Manager (committee chair), an instructional manager, and a faculty member to be appointed by the Vice President of Learning. Any questions regarding this procedure should be directed to the Student Services Manager in the Student Services Office.

Honor Cord

The Honor Cord program, sponsored by the Student Government Association, recognizes graduating students who have a cumulative program grade point average (GPA) of 3.75 or above at the end of the semester prior to completing their program requirements. Qualifying students will receive complimentary gold cords that can be worn on the graduation gown recognizing this achievement of academic excellence. For further information on the Honor Cord, see the Student Activities Manual. Copies are available in the Student Services Office at BTC's Central Campus.

President's Honor List

The President's Honor List is published each semester and contains the names of students maintaining a 3.5 grade point average (GPA) and above with a class load of nine credits or more. Honor students with a cumulative GPA of 3.5 or better for the duration of their enrollment in a one- or two-year program have such noted on their placement records. Persons achieving a 4.0 GPA are also recognized by a special "High Honors" notation.

Transcripts

A transcript of your entire academic record at BTC may be obtained by making a written request to the Registration Office. This request may be made by letter or using a transcript request form, which is available from the Registration Office. When requesting a transcript, it is important that you include your student I.D. number and dates of attendance. After graduation you will be mailed a complimentary transcript along with your diploma. Additional transcripts may be obtained as needed, but you will be assessed a charge per transcript to be paid before the transcript is sent to you.

Access to Student Records

The Family Education Rights and Privacy Act (FERPA) affords students certain rights with 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 BTC receives a request for access.

   Students should submit to the Student Services Manager written requests that identify the record (s) they wis to inspect. The Student Services Manager will make arrangements for access and notify the student of the time and place where the records may be inspected.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask BTC to amend a record that they believe is inaccurate or misleading. They should write to the Student Services Manager, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

   If BTC decides not to amend the record as requested by the student, BTC will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by BTC in an administration, supervisory, academic or support staff position (including law enforcement unit personnel); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

   Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Blackhawk Technical College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office • U.S. Dept. of Education
600 Independence Avenue, SW • Washington, DC 20202-4605

BTC, under most circumstances, will not release information in your file without your written consent. However, the Blackhawk Technical College Board has designated the following information as directory information: your name, address, e-mail address, telephone number, date and place of birth, major field of study, dates enrolled, credit load, credits earned toward a degree/diploma, most recent prior school attended, degree/diploma, honors/awards and dates received, and participation in activities.

Directory information may be released without your prior written consent unless you specifically request that the information be withheld. Any requests to withhold directory information must be made in writing to the Registration Office. Your request will remain in effect until you state, in writing, that the information should no longer be withheld. Requests to withhold only certain categories of directory information cannot be accommodated.

Name, Address, & Phone Number Change

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

Program 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. We encourage you to discuss any program changes with your Counselor, and you must notify the Admissions Office of any program change in person, in writing, or by telephone at 608•757•7665. If you do not notify the Admissions Office of your program change, no change will be made to your records.

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.

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, and childcare centers. Students accepted into programs with off-campus clinical/externship requirements must complete a background information form disclosing any acts, crimes, or convictions before entry into the program. Programs with Wisconsin Caregiver Background check requirements include:

- Certified Nursing Assistant (CNA) • Dental Hygiene
- Early Childhood Education • Health Unit Coordinator
- Medical Assistant • Nursing (ADN) • 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.

SUPPORT SERVICES

Activity Periods

Student Activity Periods are held every Thursday between noon and 12:50 p.m. No classes are scheduled during this hour so that you may participate in club and organizational activities, entertainment, and special informational presentations. The activity period also gives you time to develop plans and programs in conjunction with your technical program.

Career Center

The Career Center at BTC can help you with your career planning needs. Anyone living in the BTC district is eligible to use the Career Center. Individual career counseling is available by appointment. A fee may be charged for selected testing services.

Career Center resources include printed materials on occupations, career planning, resume writing, interviewing skills, college catalogs, and employers. Other resources include videos, computer software programs, and self-assessments such as interest, trait, work values inventories, and computerized job search. Computers are available for resume preparation, and the Internet may be accessed in the Career Center to assist you with employment opportunities. Staff is available to assist you in your use of the Career Center. These services are also available at the Monroe Campus.

Career planning and job search strategies workshops are held on a regular basis. A small fee may be charged for the workshops.

The Career Center is open Monday through Friday. Some evening hours are available by appointment. Contact 608•757•6329 for information or see your counselor.

Counseling Services

Because much of our lifetime is spent at work, career satisfaction is important to all of us. Feeling challenged, satisfied, and rewarded in a job can mean that our work needs are being met, adding to our overall sense of well-being. Sound career decisions are based on information and personal choice. Through guided self-assessment and fact finding, we can help you with one of life's most important choices.

You are encouraged to consult with a counselor about any academic or personal problem. A counselor can help you explore your aspirations, attitudes, interests, or any other special problems you may have. Counseling services include vocational guidance, career information, assistance with academic and study problems, and personal counseling.

The professional counseling staff is located in the Counseling and Career Center, directly opposite the registration area. You may seek out counseling assistance on a walk-in basis from 7:30 a.m. to 4:30 p.m. Monday through Friday, but it is highly recommended that you schedule an appointment. (A full-time counselor is also available at the Monroe Campus.) Counseling services are available at the outreach centers and in the evenings on a limited schedule. For more information about counseling services, or to schedule an appointment, call 608•757•7668 or 608•328•1660 at the Monroe Campus.

Multicultural Affairs

Blackhawk Technical College provides supportive services designed to assist multicultural 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 students. The main function is to enhance the success and retention of ethnic students attending BTC. The Multicultural Office is located in the Student Services area and is open by appointment or on a walk-in basis. Contact 608•757•7719 for more information.

Services for Students With Disabilities

BTC assists students with disabilities by providing special accommodations, when requested. If you have a disability for which you need accommodations, you should contact your instructor, a BTC Counselor or the Special Populations Instructor at 608•757•7796. Reasonable accommodations, including academic and technical program adaptations, can be made to assist you in achieving your career goals.

If you request an adaptation of a credit course, your counselor, instructor, and Special Populations Instructor will assist you in developing and implementing an educational plan. A Reasonable Accommodations Request Form will need to be completed and approved. This form can be obtained by contacting your counselor in Student Services or Student Resource Learning Center staff in the main reception desk at the Monroe Campus. BTC standards regarding course quality and academic progress must be maintained.

For individuals who are hearing impaired, TTY (text) telephones are available at each BTC facility. By calling the main telephone number at each center, you will be able to communicate directly from your personal TTY.

BTC can also provide accommodations for students and guests with disabilities participating in activities and using BTC facilities. If you require a special accommodation, you should contact the Student Services Office 608•757•7713 or information desk at the Monroe Campus 608•328•1660 to request accommodation services or equipment. In most cases, it is desirable to request accommodations at least two (2) weeks before the event, however, requests with shorter notice will be provided whenever possible.

Student Identification Numbers

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. However, BTC will continue to 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.

Learning Center/Tutorial Services

Learning Centers are available at the Central Campus, Monroe Campus, Rock County Job Center, and Beloit Learning Center to assist you with academic and study skills needed to be successful in vocational/technical programs. The centers will provide tutorial and remedial academic classes intended to help you successfully complete your program/course requirements and assignments. The Central Campus Learning Center is open from 9 a.m. to 4 p.m. and 5 p.m. to 8 p.m. Monday through Thursday, and Friday from 9 a.m. to 12:30 a.m. Services are provided at no cost to you. Call the **Monroe Campus at 608•328•1660, Rock County Job Center 608•741•3566, and the Beloit Learning Center at 608•757•7669 for hours of operation.**

BTC counselors coordinate with Learning Center staff to provide further assessment, career counseling, and referral to the Master Student course for those students who are not making satisfactory academic progress or who have limited English proficiency.

If you are interested in improving your basic academic skills, or need instruction to prepare for obtaining your GED/HSED or high school diploma, you may attend classes at a variety of outreach or community sites. Training is provided at no cost to you. For more information about class schedules and location, contact the Learning Center on Central Campus at 608•757•7676.

Alcohol and Drug Abuse Prevention

If you are experiencing problems with alcohol, tobacco or other drugs, or have concerns that someone you know may be abusing alcohol or other drugs, you are encouraged to contact a BTC Counselor.

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.

If you are a prospective graduate, you are encouraged to contact the Career Center for more information.

Guaranteed Retraining Policy

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

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

To be eligible for the guaranteed retraining you must have successfully completed and graduated from a one-year technical diploma, two-year technical diploma, or associate degree program. In addition, you must have registered for services provided through BTC's Employment Development Service located in the Career 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.

RESOURCES

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 a logon identification and temporary password at the time of initial student registration. User names and passwords are unique to individuals and must not be shared. Every student is responsible for any activity under his/her ID and password. Therefore, students should always log off a computer after each use. Computers 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.

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.

Distance Learning Services

The Distance Learning Services area provides and maintains facilities and equipment for compressed video, the Wisconsin Technical College Network (WTCN), WTCN meeting channel, and other distance learning initiatives at the college. In addition, this area houses a large selection of media equipment, films, videotapes, etc. that enhance instructional delivery.

Library

The Blackhawk Technical College Library, located at Central Campus, has branches at the Airport Campus, the Center for Transportation Studies, and the Monroe Campus, with resources also available at the Beloit Campus, and several outreach centers. The collections reflect the program areas of each site. The Central Campus Library is open from 7:30 a.m. to 9:00 p.m. Monday through Thursday, 7:30 a.m. to 4:00 p.m. on Friday, and 9:00 a.m. to 1:00 p.m. on Saturday and the branch libraries are open during class hours.

A wide range of books, periodicals, technical publications, videotapes, DVDs, CDs and other materials are available. Cooperative agreements with other library systems also provide access to materials from every library in the state and beyond. Most books and periodicals can be checked out for two weeks and audiovisual materials can be checked out for one week with a valid student ID. The library also has computer workstations, printers, a photocopier, a microfiche reader/printer, slide projector, video/DVD players, and cassette equipment for your use.

If you have questions, ask the library staff. A library orientation is presented to classes upon instructor request. Individuals may stop in for instruction any time during library hours.

Textbooks/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, which is a contracted service. The policy for a refund on book purchases is posted at the bookstore. Because faculty members may determine their textbooks for each course, it is recommended students obtain their required textbooks and workbooks after attending the first class.

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 9:00 a.m.-7:00 p.m., Wednesday and Thursday from 9:00 a.m.-5:00 p.m., and Friday from 9:00 a.m.-1:00 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 and buying online and having your books shipped. You must have a credit card to have the books shipped, or to prepay!

Student Commons/Food Service

The Student Commons is the focal point for students on the Central Campus. This attractive, multi-purpose area is large enough to accommodate 600 students in a relaxed atmosphere during class breaks. The adjacent food service area serves reasonably-priced breakfasts, lunches, and snacks through a contracted service. Breakfasts include eggs, hashbrowns, and breakfast meats, plus doughnuts and sweet rolls, coffee, hot chocolate, and a variety of juices. The lunch menu features several hot entrees, a salad bar, cold sandwiches, desserts, and short-order items such a hamburgers and french fries. A variety of soft drinks is also available. Breakfasts are served from 7:30-10:00 a.m. and lunches from 10 a.m.-1 p.m. daily.

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.

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 child(ren) while attending classes.

Child Care Services/Children's Learning Center

BTC Children's Learning Center is for use by students and faculty of Blackhawk Technical College. The Center is licensed by the State of Wisconsin. Children's Learning Center's teachers have an education in Early Childhood Education that include degrees, diplomas and certificates. Children will enjoy learning through exploration of their world around them. Children are provided activities that stimulate developmental growth in the following areas: expressive language, math/math concepts, science, sensory, fine/gross motor skills. The Center is licensed for children from birth to six years of age. The hours-of-operation are from 7:00 AM to 5:30 PM. BTC-Children's Learning Center schedule compliments the school schedule. The Center is closed on legal holidays, non-contact days, Winter Break, and Spring Break or unscheduled campus closings due to weather, etc. For more information about our program, scheduling and fees, please feel welcome to contact BTC-Children's Learning Center at 608•757•7751.

Student Accident and Health Insurance

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

Parking

The Central Campus has adequate parking for everyone. Please observe parking restrictions as posted. Otherwise, you may park in either of the lots 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 are two short-term parking areas–one for visitors and one 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 or valid BTC pass may receive a parking citation issued by the Rock County Sheriff's Dept.

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

Bus Transportation

Public transportation is offered between Janesville and Beloit. There are twelve stops each weekday at the Central Campus between 6 a.m. and 6:15 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.

Student Activities and Awards

BTC encourages student participation in extra-curricular and co-curricular activities. These activities are recognized as having educational, recreational, and social value, enabling students to gain valuable experience in leadership and working with others. To a large extent, the responsibility for conducting and administering student activities lies with the students themselves.

You are encouraged to participate in the activities that best suit your personal interests and needs. For further information about these activities, contact the Student Activities Office located in **Student Services or call 608•757•7702.** Students have the opportunity to participate in activities at all of our campus centers. In **Monroe call 608•328•1660.**

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 and acts as the liaison between the Board and the student body. The term of office is one year with elections held annually in May.

BTC Ambassadors

BTC Ambassadors are a select group of students who participate in special events, conduct tours, give presentations and assist with the orientation and recruitment of new students. Students interested in becoming an Ambassador apply in early fall and are chosen through an interview process.

Student Government Association

The purpose of the Student Government Association (SGA) is to promote citizenship and leadership among the student body, foster a spirit of democracy and unity in student activities, and encourage mutual understanding among students, administration, and staff. SGA is composed of representatives from each program and club who meet during activity period to discuss and act on issues of importance to the student body. Leadership in SGA is coordinated by an Executive Committee which consists of the President, a Vice President from each center, Treasurer, Recording Secretary, Corresponding Secretary, Governor, Lieutenant Governor, and Parliamentarian.

Student Activities Committee

The Student Activities Committee (SAC), as a sub-group of SGA, helps plan campus-wide social, recreational, and educational activities. They are also responsible for coordinating the activities calendar for all student groups. Members are involved in choosing entertainers for on-campus performances, arranging holiday programs, promoting health awareness programs, educational speakers, and organizing recreational sports events. Some of the activities sponsored by SAC include live entertainment in the Commons, annual all school socials, off campus trips to sports events, shopping trips, etc.

Student Activities Board

The Student Activities Board was established to assist the District in developing an activities program which complements the curricular offerings of the college and provides a fair and efficient means for the allocation of funds. This board, comprised of students and staff, reviews applications for student clubs and organizations, prepares an annual budget which includes financial support for all activity groups, and evaluates the overall activity program to best meet the needs of the students.

Wisconsin Student Government

The Wisconsin Student Government (WSG) of the Wisconsin Technical College System is a statewide organization comprised of elected representatives from each of the 16 technical colleges in Wisconsin. The Board of Governors of WSG is an advocacy group for technical college students at the local, state, and national levels.

Student 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:

- **Association of Information Technology Professionals (AITP)–**The AITP is open to students enrolled in the Computer Information Systems programs. During the year, as a member, you will be involved in community service projects, social functions, field trips, and fund raising projects.
- **Aviation Club–**The purpose of the Aviation Club is to promote aviation-related activities, both educationally and recreationally. Membership is open to any student, not just aviation students. As a member of the Aviation Club you will have opportunities to develop leadership skills while enjoying the excitement of aviation.
- **Criminal Justice Club–**This club is an organization of interested students and staff working together to enhance training and education in the Criminal Justice program, to develop interest in the many fields Police Science offers, and to have fun while attending BTC.
- **Early Childhood Education Club–**The Early Childhood Education Club provides students in the Child Care Program with opportunities to develop citizenship, leadership, and professional skills, become involved in career development programs, and participate in community service projects, while also offering students the opportunity to take part in professional growth activities. The club annually sponsors an educational seminar and thank you reception for early childhood educators.
- **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.

Student Organizations (cont.)

- **Health Occupations Students of America (HOSA)–** The Health Occupations Students of America (HOSA) is available to all students in Health Occupations-related classes at BTC. The organization helps to develop leadership, citizenship, personal and professional responsibility, as well as promoting various service projects throughout the District. On-campus activities are also part of the organization's programming.
- **Industrial Occupations Club–**The Industrial Occupations Club gives students the chance to acquire a sense of belonging to American industry and an enthusiasm for learning. As a member of this club, you will have numerous opportunities for leadership development, community and school service, educational experiences, and socialization programs. As an Industrial Occupations Club member, you will be able to help promote and sustain American industrial technology.
- **Louis Porter Multicultural Achievement Club–**The club was founded in 1978 in memory of Louis A. Porter, the first African-American program coordinator at BTC. Members of this club represent the diverse background of students involved in campus and community activities. Members are encouraged to promote goodwill, develop leadership skills, and achieve academically. Fund raising is a major function of the club to help sponsor annual scholarship awards for active members.
- **Outdoors Club–**The Outdoors Club is open to all BTC credit students. It was formed in January, 1997 to promote and provide students with an educational experience outside the classroom, teach students lifelong sports and recreational skills while promoting lifelong health and wellness. The club participates in SGA and promotes on- and off-campus activities.
- **SADHA-Student American Dental Hygienists' Association–** This club was formed in January, 1998. This association is a student affiliate of the national American Dental Hygienists' Association. The purpose of the BTC association is to cultivate, promote, and sustain the art and science of dental hygiene and to contribute toward the improvement of the health of the public. Students will also learn communication and leadership skills and have the opportunity to travel and learn more about their profession.
- **WMMA-Wisconsin Marketing & Management Association–**The Wisconsin Marketing & Management Association Student Chapter is a co-curricular organization designed to develop technical competence in marketing, merchandising, and management education. Activities provide for leadership development, social development and citizenship training. Members are involved in community service projects, social functions, fund raising, field trips, guest lectures and other education projects. Students have the opportunity to participate in the WMMA Fall Leadership Training Conference, Regional, State and National conferences. Membership is open to any credit students at BTC and geared towards students enrolled in the Business & Information Technology coursework fields.

Student Newspaper

The Blackhawk Flyer is a publication created and produced by volunteer students. All students are encouraged to submit articles and express their viewpoint on issues concerning them. The staff of editors, photographers, reporters, and salespeople strive to keep everyone informed of campus happenings and issues facing vocational/technical education.

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 Information Desk with a driver's license serving as the deposit to check out the ball.

Awards Program

The honors recognition program culminates in late April at the annual Awards Program sponsored by the Student Government Association. At the program, individuals are recognized for their academic achievements, participation in club and student organization activities, and contribution to the community & BTC.

Wisconsin Technical College Ambassador Program

The Technical College Ambassador Program recognizes and rewards outstanding student achievement in technical education. Students are nominated by staff and must progress through district-level screening and selection activities. The BTC winner represents our Technical College District at the State Technical College Ambassador Award Ceremony in the spring in Madison.

Who's Who Among Students in American Junior Colleges

BTC students are eligible for recognition in the Who's Who Among Students in American Junior Colleges publication. Selection is based on campus leadership, scholastic and community achievements, and the student's promise for future contributions to vocational endeavors. Deserving students are nominated by BTC staff.

Outstanding Student Achievement

This award is for students in the top 10 percent of their program who are graduating with a 3.25 or above grade point average. Students must be nominated by instructors. Selection is also based on leadership qualities and class participation.

Special Recognition Award

This award is not based on academic standing. It recognizes students who have shown initiative in attaining their goals, provided leadership and support to their fellow students, and contributed toward the continued success of their program or BTC in general. Up to five students may be nominated per program. Nomination is done by instructors.

Special Service Award

This award is for students who have participated in the BTC student clubs/organizations. It is for service and is not based on academic standing.

IMPORTANT INFORMATION FOR STUDENTS

Campus Safety/Crime Reporting Statistics

Federal and state laws require BTC to provide students information on criminal activities on campus, and to outline institutional policies for reporting criminal and arrest activities. The following information is provided in compliance with these laws:

Reporting of Criminal Actions on BTC Facilities

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.

BTC cooperates with law enforcement authorities in the exercise of their responsibilities. BTC encourages accurate and prompt reporting of all crimes to the appropriate local police agencies.

BTC will obtain reports of criminal activity and other emergency actions occurring on BTC facilities from local law enforcement agencies supporting the facilities. BTC shall prepare and report annually security and criminal statistics to students, faculty, and staff as required by applicable guidelines and procedures.

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.

Monitoring and Recording Criminal Activity off Campus

BTC encourages cooperation with local police to monitor and record information concerning criminal activity involving BTC students or recognized student organizations, but occurring away from BTC facilities. By law, BTC will cooperate with local law enforcement authorities who may request BTC staff to verify information (e.g., student status, ages, residence, etc.) about students.

Criminal Offense Statistics at BTC Facilities

BTC must annually collect and report statistics regarding certain types of crimes in accordance with applicable laws. Following is a summary of crimes that occurred on BTC facilities during 2001, 2002, & 2003:

	2001	2002	2003
Murder			
Murder and Non-Negligent			
Manslaughter	0	0	0
Negligent Manslaughter	0	0	0
Rape			
Forcible	0	0	0
Non-Forcible	0	0	0
Robbery	0	0	0
Aggravated Assault	0	0	0
Burglary	0	0	1
Motor Vehicle Theft	0	1	0
Arson	0	0	0

Statistics About Arrests on BTC Facilities

Local police agencies report the following information regarding arrests on BTC facilities during 2001, 2002, & 2003:

	2001	2002	2003
Liquor Law Violations	0	1	0
Drug Abuse Violations	0	0	0
Weapons Possessions	0	0	0

Possession, Use, and Sale of Alcohol and Enforcement of Underage Drinking Laws

The possession and use of alcoholic beverages on BTC premises is strictly prohibited. In addition, the possession, use, and sale of alcohol is 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.

The possession, use, and sale of illegal drugs is regulated at BTC in accordance with the Drug Free Schools Act, the Drug Free Workplace Act, applicable provisions of state and federal law, Wisconsin Administrative codes and District Board policies. BTC cooperates with local police agencies to enforce violations related to the possession, use, and sale of illegal drugs. If you fail to comply with applicable laws or district rules you face possible criminal prosecution, and/or suspension or expulsion.

BTC recognizes drug and alcohol dependency or abuse as a major health problem, as well as a safety and security problem. The college takes a proactive approach to alcohol and drug dependency abuse through education, prevention, and assistance. BTC is engaged in a continual effort to raise the awareness of the students, faculty/staff and the community to the problems of alcohol and drug dependency or abuse.

If you experience problems with alcohol, tobacco, or other drugs, or have concerns that someone you know may be abusing drugs or alcohol, you are encouraged to contact a BTC Counselor.

Tobacco/Smoking

For the health and well-being of everyone using BTC's facilities, smoking and the use of any type of tobacco product 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 please use only the designated areas set aside for tobacco use and the receptacles located at those areas.

Phones

Pay telephones are available for student use in each building and outside by the bus stop. You are encouraged to use these phones to conduct your business. Students are not allowed to use the school office phones. Text (TTY) telephones are also available for the hearing impaired. Red-colored emergency phones are located throughout the Central Campus which connect directly with the main switchboard. No dialing is necessary. **The TTY# is: 608•743•4499.**

Accident or Illness Emergency Procedures

Due to the technical nature of your education at BTC, there are many pieces of equipment which may cause serious injury. You are urged to use caution when operating all equipment and to follow proper safety procedures to prevent an accident.

Occasionally accidents or other serious illnesses will occur. In those situations, 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 Messages

Only messages of an emergency nature will be taken at the Information Desk and every reasonable attempt will be made to locate the student. Non-emergency messages will not be accepted. In some cases (e.g., car lights left on, etc.) a message will be placed on the closed-circuit TV monitors in the hallways. Students should inform families, child care providers, etc. of the above limitations and develop alternate arrangements in the event they cannot be located

Student Code of Conduct

The Student Code of Conduct and related disciplinary procedures are currently under revision. Refer to the 2005-06 Student Handbook/Calendar for information, or contact the **Student Services Manager at 608•757•7713**.

Student Grievance Procedure

The Student Grievance Procedure is currently under revision. Refer to the 2005-06 Student Handbook/Calendar for information, or contact the **Student Services Manager at 608•757•7713.**

School Closings

Weather-related school closings will be given to area radio and TV stations by 6 a.m. for daytime classes and by 3 p.m. for evening classes. Please tune to the following radio/TV stations:

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/Ft. Atkinson
WJVL	99.9 FM	Janesville
WEKZ	1260 AM	Monroe
WZOK	97.5 FM	Rockford
WGEZ	1490 AM	Beloit
WFAW	940 AM	Janesville/Ft. 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	Rockford

Lockers

A limited number of lockers are available for students to rent for a fee. Lockers may be rented at the beginning of each semester in the Commons or in the Student Services Office after the semester begins.

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 Information Desk directly inside the main entrance. It is generally open from 7:00 a.m. to 10:00 p.m. Monday through Thursday and 7:00 a.m. to 5:00 p.m. on Friday. Anyone finding an item should turn it in to the Information Desk.

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.

Bulletin Boards and Notices (cont.)

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.

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 counselor for assistance. A student referral form is used for this purpose. Once a referral form is received, the counselor will meet with you to discuss steps necessary to improve your academic performance. You are also urged to communicate directly and promptly with your counselor when you are notified that a referral has been filed. Referrals will typically be made for poor attendance patterns, evidence of academic difficulties, and similar occurrences.

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:

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.

The instructor(s) will have ten (10) school days to respond to your request, in writing, outlining the accommodations that will be made.

You should remind the instructor(s), in writing, of the religious observation five (5) school days in advance of the anticipated absence.

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 complaint may be filed. See your counselor for information on how to proceed with a formal complaint.

Discrimination & Harassment Policies

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

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

Brian Gohlke, Director, Human Resources, Affirmative Action Officer, Administration Center **Phone 608•757•7773**

Linda Brown, Title IX Officer, Central Campus, **Phone 608•757•7670**

Vacant, ADA Officer

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 Prairie Rd. • P.O. Box 5009 • Janesville, WI 53547

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 VII of the 1964 Civil Rights Act, Title IX of the 1972 Education Amendments, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act, prohibits harassment by supervisors, co-workers, students, and non-employees on the basis of sex, race, national origin, disability, or other protected status person.

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.

"BTC is an equal opportunity/equal access educator/employer."

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.

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.

Student Handbook/ Calendar

The Student Handbook/ Calendar-Datebook contains important dates and occurrences throughout the year at BTC. Student Handbook/Calendars-Datebooks will be distributed one per student.

Programs & Services

Occupationally-oriented instruction is afforded the student through concentration on individual courses or through full-time planned programs in the Business; Industrial Occupations and Agriculture; and Health, Human & Protective Services instructional divisions within the college.

Associate Degrees

These programs are organized to provide day and evening educational opportunities at the two-year associate degree level. The overall objective is the creation of an atmosphere of inquiry and learning in which students are guided in their pursuit of the understanding, appreciation, knowledge, and skills essential to their 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.

For more information, please contact the BTC Apprenticeship Office at 743•4472.

Apprentice Programs

Apprentice training allows you to learn while you earn through a formal training agreement that combines on the job training with related theoretical and practical classroom instruction. The term of training may vary from one to six or more years, depending on the trade. Upon completion of the apprenticeship, the student is issued a certificate of completion from the Bureau of Apprenticeship and Training. This certificate is nationally-recognized.

To become an apprentice, the first step is to select a trade or occupation. Application procedures vary by trade and location. Most apprentices begin at approximately 50 percent of the current skilled rate. There are currently over 300 apprenticeable occupations. A list of these may be obtained from: State of Wisconsin, Wisconsin Department of Workforce Development, Bureau of Apprenticeship Standards, 2125 Commercial Ave., Madison, WI 53704, **phone 608•246•7900**.

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.

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.

Tech Prep–School-to-Work, Mission:

To make education relevant so that all students find value in pursuing options to continue in post-secondary education and be successful in career and life-long learning.

Tech Prep is a federally funded program administered through the Wisconsin's Governor's Work-based Learning Board and works as a consortium in coordination with School-to-Work, Work-based Learning and Youth Apprenticeship initiatives designed to focus students on a career path for the future. The Blackhawk Technical College Tech Prep Consortium is comprised of 13 Public School Districts in Rock and Green Counties, UW-Whitewater, and CESA 2. The Tech Prep Consortium engages in activities that support partnerships between employers, labor, educators, and other community members to build a high quality educational system that prepares young people for careers. The consortium meets monthly to determine implementation of activities and to disseminate information.

The Tech Prep initiative works closely with all secondary students and 9–14 educators to create a seamless transition between consortium high schools and Blackhawk Technical College. This seamless transition is established through the development of articulation agreements between area high schools and the technical college. An articulation agreement grants high school students the opportunity to earn technical college credit while enrolled in high school, saving students (and parents) time and money by giving students a head start on their college degree.

Professional development of area educators is also coordinated and provided through Tech Prep by offering training in the development of applied and integrated academics with an emphasis toward hands-on relevant learning, connected to the Wisconsin Model Academic Standards. In addition to workshops, seminars, and curriculum development activities, funding is available for educators to work as externs at a business of their choice to learn current trends and technologies in the workplace. This experience is then captured, reported, and applied in their work with students as they serve in their role as an instructor, counselor or administrator.

Academic Support Division

The Academic Support Division faculty and staff provide basic skills education, career development instruction and support services which assist students to succeed in post-secondary education, employment, family, and community settings. 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 department provides an array of services in response to students' unique circumstances, abilities, and goals. Instruction is provided via classroom, workshop, tutorial computer, CD Rom, laser disks, television, 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 provided at no cost to adults in the district. Contact the BTC Learning Centers:

Central Campus
6004 Prairie Rd., Janesville 53545–**608•757•7676**

Beloit Learning Center
444 East Grand Ave. *(lower level),* Beloit 53511–**608•757•7669**

Green County/Monroe Campus
210 4th Ave., Monroe 53566–**608•328•1660**

Rock County Job Center
1900 Center Ave., Janesville 53546–**608•741•3566**

Adult High School

This program allows many adults to complete a High School Diploma in cooperation with their home high school. Students who did not finish high school may often be able to do so at BTC in one of several ways. In most high school districts, a student can plan with the local counselors and the BTC staff to complete the requirements for a high school diploma. This is done by combining Basic Skills Education instruction with past credits earned and work experiences. The course work can be offered solely at BTC, at the district high school, or both. The minimum age for participation is 18 years, 6 months and Wisconsin residency is required.

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. Basic skills and career awareness classes are also components of several of the high school completion options which BTC provides. BSE classes are offered throughout Rock and Green Counties at various community and workplace sites in addition to BTC's Central Campus and the centers at Monroe and Beloit.

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 department to provide the basic skills necessary for entry into its programs.

Basic Skills Education (BSE) (cont.)

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** to the student unless otherwise indicated.

Basic Skills Education courses can carry 1-3 credits and may meet from 2-6 hours per week. BSE credits do not transfer into degree programs. There is **NO FEE** charged for these courses.

Course No.	Course Name
73-851-713	BSE Communications 1
73-854-713	BSE Math 1
73-856-713	BSE Science 1
73-858-713	BSE Reading 1
73-859-713	BSE Social Science 1
73-862-713	BSE Employability Skills/Career Decisions 1
74-851-762	BSE Communications 2, Review Storefront
74-851-764	BSE Communications 2
74-854-762	BSE Math 2, Math Review Storefront
74-854-764	BSE Math 2
74-856-762	BSE Science 2, Science Review Storefront
74-856-764	BSE Science 2
74-858-762	BSE Reading 2, Reading Review Storefront
74-858-764	BSE Reading 2
74-859-762	BSE Social Science 2, Social Science Storefront
74-859-764	BSE Social Science 2
74-860-764	BSE Computer Basics
74-862-764	BSE Employability Skills/Career Decisions 2
75-861-711	English as a Second Language (ESL) Beginning Literacy Communications
75-861-714	ESL Beginning Literacy Math
75-861-715	ESL Beginning Literacy
75-861-718	ESL Beginning Literacy Reading
75-861-731	ESL Beginning, Communications
75-861-734	ESL Beginning Math
75-861-735	ESL Beginning
75-861-738	ESL Beginning Reading
75-861-751	ESL Low Intermediate Communications
75-861-754	ESL Low Intermediate Math
75-861-755	ESL Low Intermediate
75-861-758	ESL Low Intermediate Reading
75-861-771	ESL High Intermediate Communications
75-861-774	ESL High Intermediate Math
75-861-775	ESL High Intermediate
75-861-778	ESL High Intermediate Reading
75-861-791	ESL Low Advanced Communications
75-861-794	ESL Low Advanced Math
75-861-795	ESL Low Advanced
75-861-798	ESL Low Advanced, Reading

Course No.	Course Name
75-861-701	ESL High Advanced Communications
75-861-704	ESL High Advanced Math
75-861-705	ESL High Advanced
75-861-708	ESL High Advanced Reading
76-851-791	ASE High School English
76-851-793	ASE Literature and Composition
76-853-791	ASE American History A
76-853-792	ASE American History B
76-854-790	ASE General Math
76-854-791	ASE Intro to Algebra and Geometry
76-854-792	ASE Pre-Algebra A
76-854-793	ASE Pre-Algebra B
76-854-794	ASE Algebra 1A
76-854-775	ASE Algebra 1B
76-854-796	ASE Geometry A
76-854-797	ASE Geometry B
76-854-798	ASE Algebra 2A
76-854-799	ASE Algebra 2B
76-856-791	ASE General Science
76-856-793	ASE Physical Science
76-856-794	ASE Biology Prep
76-856-797	ASE Anatomy and Physiology Prep
76-856-799	ASE Chemistry Prep
76-858-790	ASE College Prep Reading
76-859-790	ASE Government
76-859-791	ASE Social Studies
76-859-792	ASE Current Social Issues
76-859-793	ASE Sociology
76-859-794	ASE Economics
76-851-771	BSE Communication 3, GED
76-851-772	BSE Communication 3, GED Review
76-854-771	BSE Math 3, GED
76-854-772	BSE Math 3, GED Review
76-856-771	BSE Science 3, GED
76-857-771	BSE Health, HSED
76-858-771	BSE Reading 3, GED
76-859-771	BSE Social Science 3, GED
76-859-773	BSE Social Science 3, Civics, HSED
76-862-771	BSE Employability Skills/Career Decisions 3
76-890-771	BSE Study Skills for College & Vocational Students
77-851-755	BSE Communications Skills for Workplace Learning Centers
77-851-781	BSE Communications 3, Communications Review
77-851-783	BSE Communications 3, Comp Prep
77-854-755	BSE Math for Workplace Learning Centers
77-854-781	BSE Math 3, General Math Review
77-854-783	BSE Math 3, Intro to Algebra and Geometry
77-854-785	BSE Math 3, Algebra for Health Professions
77-854-787	BSE Math 3, Algebra & Geometry for B & I
77-854-789	BSE Math 3, Modu-Math, Algebra
77-856-781	BSE Science 3, Science Review
77-856-783	BSE Science 3, Non-Human Biology
77-856-785	BSE Science 3, Anatomy & Physiology Prep
77-856-787	BSE Science 3, Chemistry Prep
77-856-789	BSE Science 3, Physics Prep
77-856-792	BSE Science 3, Electronics Prep
77-857-781	BSE Health
77-858-781	BSE Reading 3, Efficient College Reading
77-858-783	BSE Reading 3, Reading for Health Professions
77-858-785	BSE Reading 3, Medical Terminology Prep
77-859-781	BSE Social Science 3, Social Science Review
77-862-781	BSE Employability Skills/Career Decisions 3
77-862-789	BSE Career Planning for Single Parents & Displaced Homemakers
77-890-781	BSE Study Skills for College & Vocational Students
78-851-780	BSE Comm. 3, Review
78-851-782	BSE Comm. 3, Comp. Prep
78-854-780	BSE Math 3, General Math Review
78-854-782	BSE Math 3, Intro to Algebra & Geometry
78-854-784	BSE Math 3, Algebra for Health Professions
78-854-786	BSE Math 3, Algebra & Geometry for B & I
78-854-788	BSE Math 3, Modu-Math, Algebra
78-856-780	BSE Science 3, Science Review
78-856-782	BSE Science 3, Non-Human Biology
78-856-784	BSE Science 3, Anatomy & Physiology Prep
78-856-786	BSE Science 3, Chemistry Prep
78-856-788	BSE Science 3, Physics Prep
78-856-790	BSE Science 3, Electronics Prep
78-857-780	BSE Health
78-858-780	BSE Reading 3, Efficient College Reading
78-858-782	BSE Reading 3, Reading for Health Professions
78-858-784	BSE Reading 3, Medical Terminology Prep
78-859-780	BSE Social Science 3, Social Science Review
78-890-780	BSE Study Skills for College & Vocational Students

Course Descriptions

851-713 BSE Communications 1
Introductory course includes basics of punctuation, spelling, capitalization as needed for written expression in everyday situations. Basic sentence and paragraph construction will be included.

854-713 BSE Math 1
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.

856-713 BSE Science 1
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.

858-713 BSE Reading 1
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.

Course Descriptions

859-713 BSE Social Studies 1
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.

862-713 BSE Employability Skills/Career Decisions 1
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.

851-762 BSE Communications 2, Commu. Review Storefront
This course develops communication skills needed for the math, social studies and science tests of the GED. The majority of the content and skill requirements will be in communications.

851-764 BSE Communications 2
Develops conventions of English structure, usage, and mechanics in order to write and expand ideas. Includes practice in writing, correcting and revising as needed for the GED test at the pre-GED level. Stress will be on expressions of ideas and opinions.

854-762 BSE Math 2, Math Review Storefront
This course develops math skills needed for the math, social studies and science GED tests at the pre-GED level. The majority of content skill requirements will be in math.

854-764 BSE Math 2
Reviews Level I content and develops 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.

856-762 BSE Science 2, Science Review Storefront
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
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.

858-762 BSE Reading 2, Reading Review Storefront
Course focuses on reading in the content areas. Includes skills of comprehension, application, and analysis as needed for the GED content area tests at the pre-GED level.

858-764 BSE Reading 2
Students use word analysis strategies, build vocabulary and comprehend at an inferential and critical level. These readers apply prior experience and knowledge to a variety of written and illustrative materials and transfer reading skills to the workplace, school and everyday life. These readers set goals and manage time and resources. The student is prepared to study for high school or high school equivalency requirements.

859-762BSE Social Science 2, Social Science Review Storefront
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
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.

860-764 Computer Basics
This course is offered only to students enrolled in basic skills courses and covers elementary computer skills such as file management; document formatting, creating and management; using the Internet; basic e-mail and information management.

862-764 BSE Employability Skills/Career Decisions 2
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.

861-711 ESL Beginning Literacy Communications
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 ESL Beginning Literacy Math
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 ESL Beginning Literacy
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 ESL Beginning Literacy Reading
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.

861-731 ESL Beginning Communications
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 ESL Beginning Math
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 ESL Beginning
Classes at this level provide relevant language in real-life contexts. This class uses an experience centered approach to give student survival skills as quickly as possible. This program provides plenty of opportunity to use language, while developing grammatical skills. Students at this level will begin to form simple sentences and be able to communicate with others. Students learn about standard social norms in the United States, the work ethic in the Unites States, and how to apply basic study skills.

861-738 ESL Beginning Reading
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 ESL Low Intermediate Communications
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 ESL Low Intermediate Math
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 ESL Low Intermediate
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 ESL Low Intermediate Reading
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 ESL High Intermediate Communications
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 ESL High Intermediate Math
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 ESL High Intermediate
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 ESL High Intermediate Reading
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 ESL Low Advanced Communications
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 ESL Low Advanced Math
Learners will be introduced to basic concepts and language skills needed in algebra and geometry such as signed numbers, equations, rectangular coordinates, polynominals, angles, triangles, and plane and solid figures.

861-795 ESL Low Advanced
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 ESL Low Advanced Reading
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.

861-701 ESL High Advanced Communications
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.

861-704 ESL High Advanced Math
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 ESL High Advanced
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 ESL High Advanced Reading
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.

851-771 BSE Communications 3, GED
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 BSE Communications 3, GED Review
This course develops communication skills needed for the math, social studies and science GED tests. The majority of content and skill requirements will be in communications. The content required in the science and social studies portion of the GED tests will be incorporated within this class.

854-771 BSE Math 3, GED
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 BSE Math 3, GED Review
This course develops math skills needed for the math, social studies and science GED tests. The majority of content and skill requirements will be in math. The content required in the science and social studies portion of the GED tests will be incorporated within this class.

856-771 BSE Science 3, GED
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.

857-771 BSE Health, HSED
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.

858-771 BSE Reading 3, GED
Develops reading in the content areas, including literature interpretation, science, social studies and math. Test taking skills and study skills are stressed. This course is geared toward the GED tests utilizing simulated GED test taking, multi-media presentations, and computer software and test practice workbooks.

859-771 BSE Social Science 3, GED
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 3, Civics, HSED
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.

862-771/862-781 BSE Employability Skills/Career Decisions 3
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.

890-771/890-781 BSE Study Skills for College & Voc. Students
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.

851-755 BSE Comm. Skills for WorkPlace Learning Centers
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.

851-780/851-781 BSE Communications 3 Review
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.

851-782/851-783 BSE Communications 3, Composition Prep
This course is intended to prepare students for Communications courses at the vocational and college level. It covers basic grammar, punctuation, and spelling. Writing exercises throughout the course teach students to write sentences and paragraphs.

854-755 BSE Mathematics for WorkPlace Learning Centers
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.

854-780/854-781 BSE Math 3, General Math Review
This course allows students to work on any area in math 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 math, 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.

854-782/854-783 BSE Math 3, Intro. to Algebra & Geometry
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.

854-784/854-785 BSE Math 3, Algebra for the Health Professions
Designed for students entering a program in the health occupations that would benefit from an introduction to algebra. Provides problem-solving skills needed for drug calculations and courses in physics and chemistry.

854-786/854-787 BSE Math 3, Algebra & Geometry for Bus. & Indus.
Designed for students entering business or industrial occupations that need an introduction to algebra and geometry. Provides problem-solving skills in using formulas that are used in business math, technical math and science courses.

854-788/854-789 BSE Math 3, Modu-Math, Algebra
This computer program uses practical video segments geared toward improving basic math skills. Students get the essential instruction, including drill and practice, required for complete mastery of basic operations involving whole numbers, fractions, decimals, percents, and signed numbers. The introductory algebra course covers basic concepts; order of operations; adding, subtracting and multiplying laws; problem solving; inequalities; graphing; factoring; quadratics and more. Students may use this for the Electrical Apprenticeship, AND, Radiography, Dental Hygiene, and PTA algebra requirements.

856-780/856-781 BSE Science 3, Science Review
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.

856-782/856-783 BSE Science 3, Non-Human Biology
This course covers basic biological principles. Together with anatomy and physiology it is equivalent to a full-year of high school biology. The course will emphasize topics in microbiology and genetics.

856-784/856-785 BSE Science 3, Anatomy & Physiology Prep
Prepares students for the college level courses of anatomy and physiology needed by nursing, physical therapy, and other health related programs. Competency objectives are based on the skills needed to be successful in future courses in anatomy and physiology. Basic concepts in anatomy and physiology are covered along with study skills to help students become "self-learners".

856-786/856-787 BSE Science 3, Chemistry Prep
Designed for students entering particular vocational/technical programs that require basic knowledge of chemistry. Students learn basic chemical principles by listening to lectures, participating in class discussions and laboratory experiments. Equivalent to a full-year of high school chemistry.

856-788/856-789 BSE Science 3, Physics Prep
Designed for students with an interest in vocational/technical programs with courses in physics, such as Technical Science 1 and 2, and Physical Therapy Assistant Physics. Competency objectives are based on particular program needs.

856-790/856-792 BSE Science 3, Electronics Prep
This course prepares students for courses in electronics offered by various programs. Basic scientific principles of electronics will be covered showing practical applications of various mathematical skills.

857-780/857-781 BSE Health
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.

858-780/858-781 BSE Reading 3, Efficient College Reading
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.

858-782/858-783 BSE Reading 3, for Health Professions
This course develops comprehension skills to the level needed for success in college and vocational course work. It also aims at developing higher level reading and thinking skills for personal development. Students learn a variety of strategies which they apply to readings on interesting contemporary health topics. Students utilize a wide range of printed and illustrative materials including articles from magazines and newspapers.

858-784/858-785 BSE Reading 3, Medical Term. Prep
This course is designed to prepare students to succeed in a credit medical terminology class. Students learn study skills and learning strategies such as concentration and memorization techniques. Individual learning styles are assessed and personal study plans are developed. Students learn and demonstrate time management and test taking techniques.

859-780/859-781 BSE Social Science 3, Social Studies Review
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.

862-789 Career Planning for Single Parents & Dis. Homemakers
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.

890-780/890-781 BSE Study Skills
This class is designed to assist new and continuing students in the development of affective and coping skills, and study skills. The students develop a variety of learning strategies including test taking and note taking skills, study skills, computer skills, and organization/ time management skills. The course will also include an orientation to campus, information about other support agencies, training in self-advocacy, and development of an individualized educational plan.

851-791 ASE High School English
This course prepares students in writing concise and accurate sentences and paragraphs by focusing on basic grammar, punctuation, and spelling.

851-793 ASE Literature and Composition
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
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
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.

854-790 ASE General Math
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 to Algebra and Geometry
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
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
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
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.

854-775 ASE Algebra 1B
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.

854-796 ASE Geometry A
This course covers plane geometry, proofs, parallelism, congruent triangles, polygons, special quadrilaterals and similarity.

854-797 ASE Geometry B
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
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
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.

856-791 ASE General Science
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
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
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 and Physiology Prep
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
Students learn basic chemical principles by listening to lecture, participating in class discussions and laboratory experiments.

858-790 ASE College Prep Reading
This course concentrates on developing high level comprehension and reasoning skills, stressing vocabulary development, reading flexibility and rate, study skills and critical thinking skills.

859-790 ASE Government
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
Concentrates heavily on content in the areas of history, economics, geography, political science and behavioral sciences.

859-792 ASE Current Social Issues
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
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
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.

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 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.

ESL--English As A Second Language

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

External Diploma Program

A program for mature adults who have enough knowledge to demonstrate competency of the requirements for a high school diploma. Through a series of assessment activities, participants will demonstrate that they have gained skills through life experiences. There are no instructions and no tests. The program is individualized and confidential. A high school diploma is issued upon completion. There are fees involved.

Family Literacy Programs

Blackhawk Technical College works in cooperation with the Beloit and Janesville Public Schools to provide parenting, English as a Second Language (ESL), and basic skills instruction. The Even Start programs provide a family-centered learning model for parents who wish to improve basic literacy and to complete their GED or HSED testing program. 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. 118.15. It offers high school credit and GED/HSED courses for students referred by and enrolled in district high schools. This program aids the 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 earn high school diplomas, prepare to take GED/HSED tests, prepare to enter vocational programs or post-secondary studies and obtain assistance with vocational studies.

Subjects are presented through self-study materials and audio-visual presentations. Individualized instruction allows the student to learn at his/her own rate. 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.

P.I. 5.09

This program is an alternative form of HSED, available only by referral from instructors.

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. With the goal of reducing recidivism, the program provides Basic Skills Education, counseling on overcoming addictions and criminal thinking, and vocational training, work, and community service.

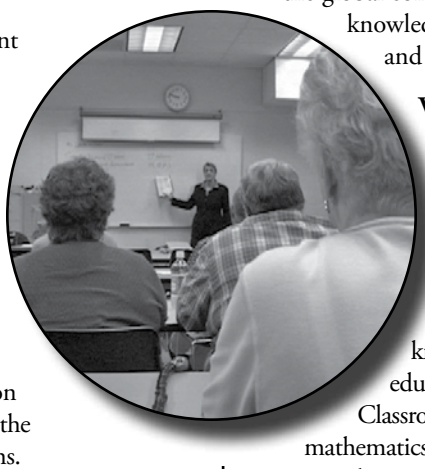
Supplementary Services for Students With Disabilities

Appropriate assistance or program modifications for visually impaired, hearing impaired, learning disabled, cognitively disabled, emotionally disabled, or physically disabled students who need assistance to better insure success in their chosen vocational program. There is no cost to individuals or referring agencies for persons who meet the criteria listed. The Special Populations Instructor will also travel to outreach centers to assist in necessary adaptions. Please call **608•743•4422** Voice/TTY for assistance.

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. Classes are offered at all centers during the day and evenings.

Vocational Training for Special Needs/ At Risk Youth Program

The Vocational Training for Special Needs/At Risk Youth program is a cooperative effort between CESA #2, BTC, and district high schools. This articulation program provides high school special needs/at risk students with "hands-on" exploration and experience through enrollment in mini courses. The mini courses are specifically designed to give a basic overview of skills needed to succeed in BTC technical programs.

Wingspan

Retention and career development services for nontraditional students, those students enrolled in programs comprised of 25% or fewer of their gender, and displaced homemakers those who are widowed, divorced, separated, or who have a disabled spouse. Services include brush-up classes, financial assistance, and job seeking skills assistance. All services are provided in a caring and confidential manner.

Services include:

- Career planning workshops
- Individual career development assistance
- Referrals to community and college-based resources
- Individual assistance for personal advocacy
- Academic and personal skills enhancement

Referrals to financial resources including scholarships, traditional financial aid resources, and other community resources available.

Contact the Wingspan Coordinator at 608•757•7656.

GENERAL EDUCATION DIVISION

Mission: General Education prepares students for life in the global community by helping them develop a core of knowledge, skills, and attitudes essential for personal and professional success.

Vision: Be a vital, integral partner in BTC's programming.

General Education is an essential part of occupational programming and the institution as a whole. It is the role of General Education in the Associate Degree and Technical Diploma programs to provide an educational 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. These skills, which are regularly identified by employers, employees, and educators, are broadly defined by seven outcomes.

Outcome Assessment Statements

- Use the writing process to prepare & present written documents.
- Use various communication strategies to share meaning orally.
- Apply listening skills to various communication situations.
- Apply mathematical symbols and concepts to area of study.
- Utilize mathematical processes to solve problems.
- Apply scientific concepts and terminology.
- Apply social science concepts and principles to area of study, world of work, and personal life.

General Education Methods of Delivery

The General Education Division prides itself on its flexibility. Classes are offered in a variety of formats including traditional, video-based (TV), compressed video, Accelerated Learning (ACCEL), and web-enhanced. These alternative delivery systems should be selected carefully. The faculty is continually adapting curriculum and delivery systems to better meet the needs of our students.

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

Telecourses (Video-based-Independent Study):
These courses require students watch selected programs over public television and complete activities based on the programs and selected readings. These courses are becoming more web-enhanced so access to a computer is recommended.

Compressed Video (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:
These courses may include classroom and lab experiences. To be successful students should have regular access to computers with Internet capabilities.

Internet:
These courses are independent study courses with material delivered through the Internet. Some classes include testing online, while others require students to come to campus to complete the tests.

Required For Associate Degree (18 Credits)

The General Education core for associate degree programs consists of 15 credits drawn from Communications and Behavioral/Social Sciences. In addition, all Associate Degree programs require 3 credits of math and/or science. Students should check with their program advisor or counselor for the specific program requirements.

Communication-- 6 credits required

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

Social Science-- 3 credits required

Course #	Course Title	Credits
809-195	Economics	3
809-196	Introduction to Sociology	3

Behavioral Science -- 3 credits required

Course #	Course Title	Credits
809-198	Introduction to Psychology	3

Math and/or Science -- 3 credits required
(Check with your program advisor or counselor for the specific program requirements.)

General Education Electives -- 3 credits required. See list below.

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.

Following is a list of current General Education courses and descriptions. Not every course is offered every semester and the number of students registering for a course determine whether or not the course is taught a particular semester.

General Education Course Descriptions

140-101 Spanish Language & Culture **3 Credits**
This course is an introduction to the basic concepts of the Spanish language and culture.

140-102 Spanish Language & Culture II: Emergency Services Personnel **3 Credits**
This is an intermediate level course for emergency services personnel to use the Spanish language in police-related and emergency situations. Also included is an introduction to aspects of Hispanic culture that will help effectiveness in police-related and emergency situations. ***Prerequisite: 140-101 or demonstrated knowledge of basic Spanish.***

801-119 Mass Communication **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.

801-195 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. ***Word processed assignments and a 5-7 page research paper are required.***

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. ***Prerequisite: 801-195***

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 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. ***Recommended: 1 year of high school math.***

804-106 Introduction 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 rations, 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.

804-110 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, Presentation & Analysis **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.

804-115 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. ***Recommended: High school algebra or equivalent.***

804-116 College Technical Mathematics 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. ***Pre-requisite: 804-195***

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.

804-133 Mathematics & Logic **3 Credits**
Students will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.

804-304 Math Fundamentals **2 Credits**
Offered in fall semester only.
This one semester course consists of self-paced instructional units. It 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, scientific notation, powers and roots of numbers, and an introduction to trigonometry and vectors. *(This course is similar to General Mathematics minus three units of study. General Mathematics may be used to satisfy the Math Fundamentals requirement.)*

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. ***Recommended: 1 year of high school math.***

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. ***Prerequisite: 804-306***

804-309 Shop Mathematics III **2 Credits**
Offered in fall semester only.
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. ***Prerequisites: 804-306 and 804-308***

806-108 Applied Anatomy & Physiology **5 Credits**
This course is designed to acquaint the PTA student with joint structure and function, human movement, normal posture, gait patterns and biomechanics. Critical thinking skills are encouraged so as to analyze the locations, relationships, and functions of the musculoskeletal systems. The central nervous system's influence on muscle tone and the integration of muscle action to produce motion are examined. The development of observation and palpation skills is emphasized. Goniometry as an evaluation tool is also introduced. ***Prerequisites: 806-131 & 806-140.***

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.

806-118 Metal Science **3 Credits**
Offered in spring semester only.
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 hazardous 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.

806-140 General 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. ***Prerequisite: 804-115***

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. ***Prerequisite: 806-151.***

806-186 Introduction to Biochemistry **3 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. ***Prerequisite: High school or college chemistry with a grade of C or better.***

806-194 Survey of Anatomy and Physiology **3 Credits**
This course is designed to assist the Medical Administrative Specialist and the Medical Coder with the transcription of medical notes, information, and documented application of medical, surgical, and human anatomy terminology and provide a basic understanding of human physiology.

806-177 General Anatomy & 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. *(This course also provides the foundation, and is prerequisite to Advanced Anatomy and Physiology.)* ***Prerequisite: High school or college chemistry with a grade of C or better.***

806-179 Advanced Anatomy & 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. ***Pre-requisite: 806-177 with a grade of C or better.***

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. ***Pre-requisite: 806-177 or 806-131 with a grade of C or better.***

806-315 Applied Science 2 Credits
Offered in spring semester only.
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. ***Prerequisites: 804-105.***

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. ***Recommended: High school algebra***.

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. ***Prerequisite: 809-198.***

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.

809-352 Skills for Successful Employees 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.

Outreach to Our Communities

Each year more than 14,000 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 enter learning programs on the Janesville or Monroe campus, at one of the BTC Learning Centers, or at the business where you are employed.

The Business & Community Development Division, including Continuing Education Programs, provides an array of courses in a variety of settings. Continuing Education schedules learning opportunities for individuals seeking enrichment, furthering their knowledge and skills for work or fun. Business & Community Development works directly with business and industry, education and community organizations to custom design services that include classes, workshops and seminars as well as consulting services that can be delivered on-site at the business or on campus.

Laura Mosena, Director – 608•757•7704

Customized training and business consulting is the core of the services provided by the Business & Community Development Division (BCD). Our professional staff can assess your business and training needs and then design and deliver services that help your business or organization meet its goals. Training and consulting can be provided at your site or at any of the College centers or campuses.

The BCD Managers will work with you to match the right trainer or consultant to your needs. This individual will assist in creating solutions to your specific issues by custom designing curriculum and activities for you. The Managers can guide you to State of Wisconsin funding that may be available to offset your training costs.

Business seminars, organizational analyses, employee skills assessments, business planning assistance, and facilitation services are also available.

Examples of training and consulting services that have been provided through the Business & Community Development Division are listed below:

- Computer Skills Assessments & Testing Center
- Computer Topics
- Customer Relations Management
- Human Resource Management
- Information Technology
- Inventory Management
- Leadership & Development
- Lean/Six Sigma Topics
- Maintenance
- MSHA Compliance
- OSHA Training
- Personnel Mentoring
- Process Picture Mapping
- Production Management
- Quality Management
- Ropes Challenge Course Activities
- Safety Management
- Sales & Marketing
- Shop Skills Training
- Strategic Planning
- Supplier Relations Management

Managers, Training & Consulting Services

BCD Managers are available to assist businesses and organizations with their training, consulting, and facilitation needs.

Steve Carter—608 •757•7728
Dawn Marsh—608•757•7726

Clients include businesses and organizations from the following sectors:

- Manufacturers
- Distribution Facilities
- Transportation Industry
- Construction
- Protective Services
- Community-based Residential Facilities
- Community-based Organizations
- Education
- Health Care
- Food Processing
- Finance
- Real Estate
- Insurance
- Appraisal

To learn more about how Business and Community Development can work with you please call **608•757•7630** or send an e-mail to **BusinessDevelopment@blackhawk.edu**
In Green County call **608•329•8221.**

Continuing Education Programs

Continuing Education offers non-credit courses in Business & Information Technology, General Education, Industrial / Agriculture Occupations, Personal Development, Occupational Preparation, Career Change and Skills Upgrading.

Tim Urbonya, *Coordinator*–**608•757•7701**

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Personal Development Continuing Education Courses

In PERSONAL DEVELOPMENT a variety of classes provides adults with opportunities to expand their knowledge or skills for both personal and vocational development.

Diverse interests require a variety of opportunities, times, and settings to meet the needs of employed workers, homemakers, and retired individuals who desire personal growth.

Individuals and groups with ideas for classes are encouraged to contact the Center for Continuing Education.

(Sample Listing)

- Cake Decorating
- Commercial Drivers License
- Creative Writing
- Drawing & Painting
- Flower Arranging
- Furniture Renovation
- Genealogy
- German
- Pre-Retirement Planning
- Reupholstery
- Sewing
- Sign Language
- Spanish
- Food/Nutrition Classes
- Quilting
- Computer Classes

A wide variety of Industrial related courses are offered. Classes range from Basic Electricity to Programmable Logic Controllers.

Interested students take these courses for skills upgrade and self-improvement in their current vocation or to help open the door for new opportunities in the working world.

The following courses are offered for individuals to attend on a part-time basis in the area of industrial occupations.

(Sample Listing)

- Basic Electricity for Construction & Industry
- Blueprint Reading
- CAD
- Forklift Operator Training
- Fundamentals of Welding
- House Wiring
- National Electric Code
- Pre-Apprenticeship Training
- Programmable Logic Controllers
- Quality Control
- Safety
- Woodworking

Outreach Education

Blackhawk Technical College has outreach centers in six locations throughout Rock and Green Counties. The Monroe Campus of Blackhawk Technical College is located just off the Highway 11 bypass in Monroe. This full-service, handicapped accessible Center has three state-of-the-art computer labs and a distance learning lab linking it to Central Campus. At the Monroe Campus, students may choose from a selection of full associate degree, one year diplomas and short term certificates as well as the general education core courses for all associate degrees offered through the college. Additionally, annually more than 100 continuing education classes, educational and financial aid counseling, and GED/HSED preparation and testing services are offered. Up-to-date training for Green County employers and employees supports regional workforce development. Students are served in learning activities featuring small class size and a personalized learning environment at the Monroe Campus.

Outreach centers have their own full- or part-time center coordinators who are responsive to the training and educational needs of their communities. Following are BTC's Outreach Continuing Education Centers:

- Beloit Center
- Edgerton
- Evansville
- Milton
- Monroe
- Center for Transportation Studies
- Rock County Job Center

In the smaller centers, classes are usually held in local school facilities and course offerings include both credit and non-credit classes in the areas of business, family and consumer education, industrial occupations, personal development and service occupations. Adult Basic Education and GED/HSED preparation courses are located in several centers throughout the district as well.

Through the outreach centers, BTC provides district residents the opportunity to upgrade job skills, begin credit programs, and take enrichment classes close to home in their local communities. More than 1,700 courses are offered annually through BTC's Monroe Center, Continuing Education Programs, and Business & Community Development Division.

The Department of Accounting offers an Associate degree that prepares its graduates for entry-level positions in a variety of business enterprises. Students are provided with an opportunity to develop their intellectual, interpersonal, and communication skills, along with their professional orientation. Students learn to solve accounting problems both manually and with the aid of computers. In addition, the educational experience enables students to develop the motivation and ability to learn throughout their lives.

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

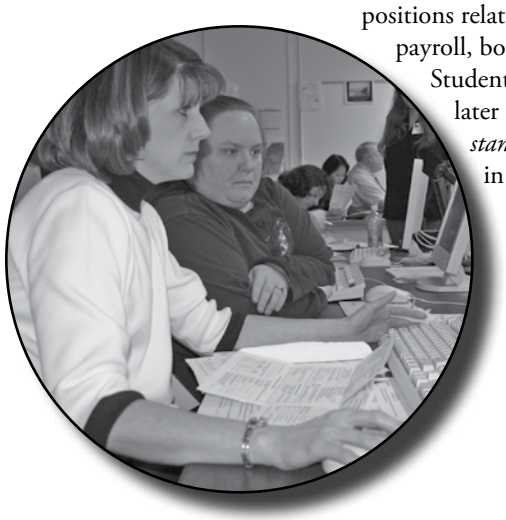
- Prepare financial statements and related schedules in conformity with generally accepted accounting principles.
- Evaluate opportunities for improving a company's financial performance.
- Use computers as tools for solving problems, managing information, presenting ideas, and making decisions.
- Apply accounting skills and principles creatively and innovatively in accordance with the standards of professional ethics.
- Demonstrate the flow of information within an organizational structure.
- Develop a comprehensive systems model of internal controls.
- Synthesize research and principles of taxation in recommending options to minimize tax liabilities and prepare tax forms.

Graduates from this program have found employment as:

- Accounts Payable/Receivable Clerk
- Payroll Clerk
- Accounting Clerk
- Assistant Accounting Manager
- Accountant
- Accounting Assistant
- Office Accountant

Helpful High School Courses--
The following are not required for admission into this program but help students prepare for this degree:

- Accounting
- Algebra
- Business Math
- English
- Bookkeeping
- Economics
- Computers
- DECA and FBLA Leadership



	Course Name	Credits	Lec-Lab
Semester 1			
101-103	Accounting Orientation	2	2 - 0
101-105	Accounting Spreadsheets	3	1 - 4
101-111	Accounting I	4	2 - 4
103-174	Introduction to MS Word	1	0 - 2
801-195	Written Communication	3	3 - 0
804-110	Elementary Algebra with Applications	3	3 - 0
Semester 2			
101-112	Accounting II[1]	4	2 - 4
101-130	Accounting Information Systems	3	3 - 0
101-135	Payroll Accounting[1]	2	1 - 2
101-136	Computerized Accounting[1]	1	0 - 2
102-160	Business Law	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
Semester 3			
101-113	Accounting III[1]	4	2 - 4
101-123	Income Tax Accounting	3	2 - 2
101-125	Cost Accounting[1]	4	2 - 4
809-198	Introduction to Psychology	3	3 - 0
809-195	Economics	3	3 - 0
Semester 4			
101-109	Financial Analysis[1]	3	2 - 2
101-124	Applied Income Tax[1] OR	2	0 - 4
101-128	Supervised Occupational Experience[1]	3	varies
101-131	Advanced Accounting Information Systems[1]	4	2 - 4
101-137	Career Development in Accounting[1]	1	1 - 0
809-196	Introduction to Sociology	3	3 - 0
	Elective[2]	3	varies
	Elective[2]	3	varies
TOTAL CREDITS		***68***	

[1]Course has prerequisites.
[2] Recommended accounting-related electives include:

101-150	AIPB Certified Bookkeeper Exam Prep	3	2 - 2
103-178	Advanced Excel	2	0 - 4
101-104	Online Learning Strategies	2	2 - 0

The Accounting Program is also offered as an on-line degree. Interested students should contact a Student Services advisor for information.

Accounting Assistant Certificate (32 cr.)

Students may choose to receive a certificate as an Accounting Assistant upon satisfactory completion of the first two semesters of the Accounting Associate Degree Program. With this certificate, you will be better prepared for entry level positions related to accounts receivable, accounts payable, payroll, bookkeeping, and other related office functions. Students selecting this option may return to BTC at a later date *(in accordance with the College's advanced standing policy)* to complete the Associate Degree in Accounting.

Course Descriptions

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 **2 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. ***A working knowledge of Microsoft Windows is highly recommended.***

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. ***It is helpful to take Accounting I concurrently.***

101-109 Financial Analysis **3 Credits**
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 budgeting, forecasting, financial statement preparation and financial analysis. Emphasis is placed on spreadsheeting. ***Prerequisites: 101-125 Cost Accounting and 101-113 Accounting III.***

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 practice sets. 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. ***Prerequisites: 101-103 Accounting Orientation, 101-105 Accounting Spreadsheets, 101-111 Accounting I and 804-110 Elementary Algebra with Applications.***

101-113 Accounting III **4 Credits**
This is a continuation of Accounting II. The course focus is on accounting for long-term liabilities, partnerships, corporations, and preparing the statement of cash flows. A comprehensive practice set allows students a practical application of accounting theories. ***Prerequisite: 101-112 Accounting II.***

101-123 Income Tax Accounting **3 Credits**
A study of the federal and state income tax laws 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 federal and state income tax returns for people in the community through the VITA program. Customer relations are an important component of this course. ***Prerequisite: 101-123 Income Tax Accounting.***

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. ***Prerequisites: 101-112 Accounting II and 101-135 Payroll Accounting.***

101-128 Supervised Occupational Experience-Accounting **3 Credits**
In this course, 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. ***Prerequisites: Completion of 1st year courses of the Accounting Program.***

101-130 Accounting Information Systems 3 Credits
Upon successful completion of this course the student will be able to document the accounting system in an organization using flowcharting techniques, identify internal control weaknesses and make suggestions as to how internal controls can be strengthened. The student will become familiar with the principles of system development and decision making. The student will understand how each transaction cycle functions and what is needed to keep them in control.

101-131 Advanced Accounting Information Systems 4 Credits
This course covers the development of a REAL 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. ***Prerequisites: 101-130 Accounting Information Systems and 101-113 Accounting III.***

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. ***Prerequisites: 101-111 Accounting I and 804-110 Elementary Algebra with Applications.***

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. ***Prerequisite: 101-111 Accounting I or equivalent experience.***

101-137 Career Development 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. Students critically review ethical issues in the accounting profession and research accounting topics using the Internet, library, and community resources. This course is intended for students who are either in their second semester of the one year certificate or their fourth semester of the two year degree. ***Prerequisite: 101-103 Accounting Orientation.***

101-150 AIPB Certified Bookkeeper Exam Prep 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. ***Prerequisites: 101-111 Accounting I, 101-112 Accounting II, and 101-135 Payroll Accounting or equivalent experience.***

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.

103-174 Introduction to MS Word 1 Credit
Microsoft Word is a popular word processing program that enables the user to create a full range of business and personal correspondence. Word extends the boundaries of word processing with its ability to add graphics, colors, and tables. This course will introduce the user to the basic concepts of Word through hands-on applications within a realistic business context. ***A working knowledge of Microsoft Windows is recommended.***

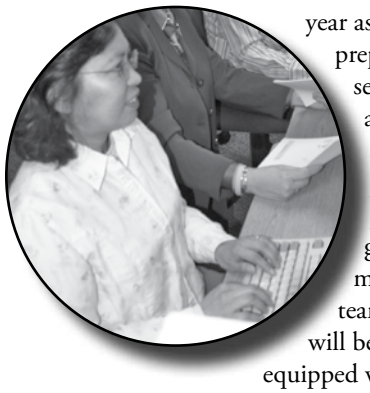
103-178 Advanced Excel 2 Credits
This course covers advanced features of Microsoft Excel such as what if analysis, input tables, spreadsheet consolidation, data tables and queries, object linking and imbedding, filters and pivot tables, macros, Visual Basic for Applications, and charting features. ***Prerequisites: 101-105 Accounting Spreadsheets or equivalent experience.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-110	Elementary Algebra with Applications	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

ADMINISTRATIVE ASSISTANT



BTC's Administrative Assistant two-year associate degree is designed to prepare tomorrow's executive secretaries, administrative assistants, project coordinators, and other administrative professionals who want to position themselves to take on greater responsibilities as vital members of the management team in the workplace. Students will become valued assistants equipped with the latest technology, research, communication, and professional skills.

Students will develop the knowledge and ability to complete core level and some expert level proficiency exams in MS Word, MS Excel, MS Access, MS PowerPoint, and MS Outlook, if they so choose. Since BTC is an authorized testing and certification center for Microsoft Office Specialist tests, these industry-recognized exams may be conveniently scheduled.

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

- Compose business correspondence
- Conduct research
- Coordinate meeting activities
- Coordinate travel arrangements
- Demonstrate leadership in managing office projects and/or teams
- Design presentations, forms, and publications
- Maintain office equipment, hardware, and software
- Manage information in electronic and paper formats
- Process financial records
- Process incoming and outgoing communications

Graduates from this program have found employment as:

- Administrative Assistant
- Human Resources Assistant
- Administrative Coordinator
- Administrative Specialist
- Executive Assistant
- Office Manager
- Office Assistant
- Project Coordinator
- Secretary

Helpful High School Courses:

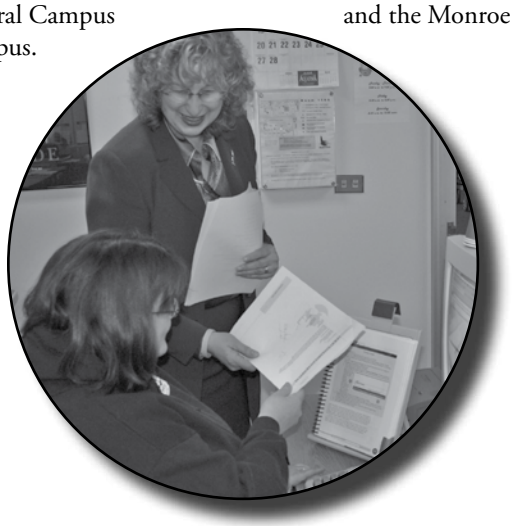
- Touch keyboarding skill of 40 wpm or higher for 5 minutes with 5 or fewer errors. Keyboarding, Skillbuilding and Keyboarding Applications courses are available at BTC.
- English composition
- Computer applications
- Advanced standing may be available for some courses; check with your high school counselor.
- Proficiency testing is available for some courses; check with BTC's Student Services staff.

	Course Name	Credits	Lec-Lab
Semester 1			
106-108	Proofreading and Editing	1	0 - 2
106-133	Document Formatting	3	1 - 4
106-145	Information Technology Essentials	3	2 - 2
106-157	Administrative Assistant Fundamentals	1	1 - 0
197-107	Professional Profiles	3	3 - 0
801-195	Written Communication	3	3 - 0
804-106	Introduction to College Mathematics **OR**		
804-110	Elementary Algebra with Applications	3	3 - 0
Semester 2			
101-102	Office Accounting	3	2 - 2
106-129	Business Filing	1	0 - 2
106-146	Word Processing Applications	3	1 - 4
106-153	Administrative Office Procedures[1]	3	2 - 2
106-159	Business Spreadsheets	3	2 - 2
106-165	Business Presentations	1	0 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
Semester 3			
106-137	Integrated Office Applications	3	1 - 4
106-156	Business Database	2	1 - 2
106-164	Specialized Software Applications[1]	3	1 - 4
809-195	Economics	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
	Elective	3	3 - 0
Semester 4			
102-160	Business Law	3	3 - 0
106-130	Transcription Technology[1]	2	0 - 4
106-155	Introduction to Desktop Publishing	2	1 - 2
106-158	Supervised Occupational Experience[1]	2	1 - 4
106-160	Administrative Office Management[1]	3	2 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective	3	3 - 0
TOTAL CREDITS		***69***	

[1]Course has prerequisites.

Business Technology Certificate (34 cr.)

All courses in this certificate qualify for the Administrative Assistant A.A.S. Degree. This certificate is offered at both Central Campus and the Monroe Campus.



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.

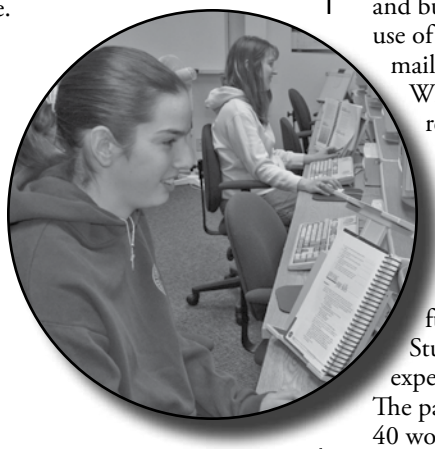
102-160 Business Law **3 Credits**
This course is designed to provide the student with a working knowledge of law as it relates to the rights and responsibilities of businesses and individuals. Emphasis is placed on torts, contracts, case analysis, ethics, and social responsibility, particularly in the business context.

106-108 Proofreading and 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.

106-129 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. It is expected that students will have completed 106-108 Proofreading and Editing, 106-133 Document Formatting, and 801-195 Written Communication, or the equivalent.

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. Students can expect to possess keyboarding skills of 40 wpm or higher at the end of this course. Touch keyboarding skill (30 wpm for 3 minutes with 3 or fewer uncorrected errors) is assumed at the beginning of this course. This course is not required for students who can demonstrate this competency on a timed test.



106-133 Document Formatting **3 Credits**
Document Formatting further develops computer keyboarding skills and emphasizes the production of a wide range of typical business correspondence, tables, reports, and forms from unarranged and rough-draft sources. This course has a heavy emphasis on producing mailable documents. The ability to format basic letters, memos, reports, and tables using word processing software is expected at the beginning of the course along with touch keyboarding skill (a minimum of 40 wpm for 5 minutes with 5 or fewer uncorrected errors).

106-137 Integrated Office Applications **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. Students are expected to have working knowledge of Microsoft Outlook and Word at the beginning of the course.

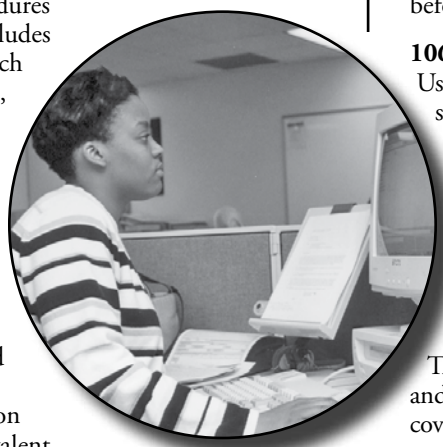
106-140 Keyboarding **1 Credit**
Students will master the computer keyboard by touch including the letters and numeric keypad. Computer software is used to begin development of acceptable speed and accuracy levels. Students completing this course may be ready for 106-131 Keyboarding Applications, or may continue to develop their proficiency and keyboarding abilities in Skillbuilding. This course is not required for students who can demonstrate keyboarding skills of 30 words per minute with 3 or fewer uncorrected errors on a 3 minute timing.

106-143 Skillbuilding **1 Credit**
This elective 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. This course may be taken more than once to further develop skills. Students should know the alphabetic keyboard by touch or have taken 106-140 Keyboarding. Students completing this course may be ready for 106-131 Keyboarding Applications or may continue to develop their proficiency and keyboarding abilities by repeating the course.

106-145 Information 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. The pace of this course is based on touch keyboarding speed of 40 words per minute and basic computer skills.

106-153 Administrative Office Procedures 3 Credits
This course covers office procedures concepts and practices and includes practical experience in areas such as specialized office equipment, telecommunications, mail processing, telephone techniques, office supplies, ethics, ergonomics, and customer service. Critical-thinking, problem-solving, and job performance skills in a global business environment are also included. It is expected that students have successfully completed 106-145 Information Technology Essentials or equivalent.



106-155 Introduction to Desktop Publishing 2 Credits
Desktop publishing combines 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 2 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 Administrative Assistant Fundamentals 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 guest speakers will be part of this course. Whenever possible, this course should be taken during the student's first semester.

106-158 Supervised Occupational Experience - Administrative Assistant 2 Credits
This course consists of two components—a minimum of 72 hours of practical experience in an office environment and an hour per week of in-class instruction. Students will be expected to obtain a job and demonstrate technical and interpersonal (cont.) 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. Students should have satisfactorily completed all core courses in semesters 1, 2, and 3 of the Administrative Assistant Associate Degree program before taking this course.

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 course 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, international issues, and career development. Successful completion of all core courses in semesters 1, 2, and 3 of the Administrative Assistant Associate Degree program is expected.

106-164 Specialized Software Applications 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. The skills learned in 106-146 Word Processing Applications and 106-108 Proofreading and Editing will be applied.

106-165 Business Presentations 1 Credit
Microsoft PowerPoint software will be used to create dynamic, professional-looking presentations. Students will be able to design an electronic slide show—format text; apply special effects; add graphics, sound, and video; integrate other software; print in a variety of formats and media; and deliver presentations they authored. Students will be prepared to take the Microsoft Office Specialist certification exam. Touch keyboarding and basic word processing skills are necessary.

197-107 Professional Profiles 3 Credits
The mission of the course is to empower students to enhance performance through personal self-management. The course, which is built around "The Seven Habits of Highly Effective People," provides an opportunity to develop both personally and professionally in effectively dealing with change.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-106	Introduction to College Mathematics	3 Credits
804-110	Elementary Algebra with Applications	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

AIR CONDITIONING, HEATING & REFRIGERATION TECHNOLOGY (HVAC/R)

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

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

After completing the HVAC/R 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–
Upon completion of this program, you will be able to:

- Perform HVAC/R service and repair operations in compliance with published safety standards
- Describe and/or apply HVAC/R processes and procedures which are located in repair manuals
- Operate tools and 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

Graduates from this program have found employment as:

- HVAC/R Service Technician
- HVAC/R Service Manager
- HVAC/R Sales Representatives
- HVACR Construction Manager
- HVAC/R Systems Designer

Career Outlook:
There is a constant demand for comfort systems, and trained HVAC/R technicians are sought to operate and maintain these systems. Graduates of this program often obtain work as air conditioning technicians, refrigeration technicians, sales representatives, sales engineers, system supervisors, system designers, and system design technicians.

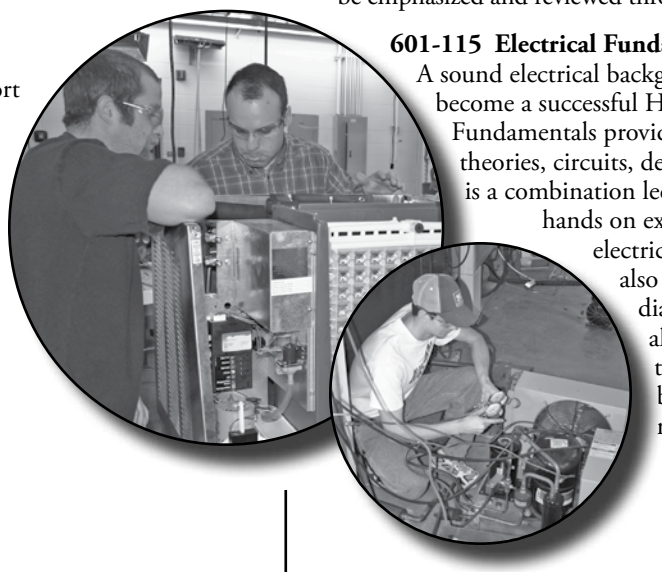
	Course Name	Credits	Lec-Lab
Semester 1			
601-110	Air Conditioning Fundamentals	3	2 - 2
601-115	Electrical Fundamentals	3	2 - 2
631-120	Industrial Computer Applications	3	2 - 2
601-125	Mechanical Systems - Drawing & Interpretation	3	2 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
804-105	General Mathematics	3	3 - 0
Semester 2			
601-120	Refrigeration Fundamentals[1]	3	2 - 2
601-130	Heating Systems	3	2 - 2
601-135	Electrical Controls & Systems[1]	3	2 - 2
801-195	Written Communication	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
Semester 3			
601-140	Control Circuit Applications[1]	3	2 - 2
601-150	Air Conditioning Applications[1]	3	2 - 2
601-155	Refrigeration Applications[1]	3	2 - 2
809-195	Economics	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
	Elective	3	3 - 0
Semester 4			
601-145	Heating System Applications[1]	3	2 - 2
601-160	Hydronic Systems[1]	3	2 - 2
601-165	Electronic Energy Management Systems[1]	3	2 - 2
601-170	HVAC/R Service Internship	3	3 - 3
	OR		
601-175	Servicing & Troubleshooting	1	2 - 2
	Elective	3	3 - 0
TOTAL CREDITS		***66***	

[1]Course has prerequisites.

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. ***Prerequisite: (601-110) Air Conditioning Fundamentals***

601-125 Mechanical Systems-Drawing and Interpretation 3 Credits
In this course, instruction will be given in design, application, blueprint reading, symbols and drawings of mechanical systems. Outlays of various heating and cooling systems in relation to architectural buildings are used. Proper mechanical schematics, isometric piping, and flow diagrams are discussed and drawn.

601-130 Heating Systems 3 Credits
Heating Systems will study the principles of operation of commercial and residential heating systems as encountered in the HVAC/R servicing and installation business. Forced air systems utilizing gas combustion systems will be covered along with electric heating systems. This course is a balance of theory and application.

601-135 Electrical Controls and Systems 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. ***Prerequisite: (601-115) Electrical Fundamentals***

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. ***Prerequisite: (601-115) Electrical Fundamentals and (601-135) Electrical Controls and Systems***

601-145 Heating System 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. ***Prerequisite: (601-130) Heating Systems***

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. ***Prerequisite: (601-110) Air Conditioning Fundamentals***

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. ***Prerequisite: (601-120) Industrial Computer Applications***

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. ***Prerequisite: (601-130) Heating Systems, (601-145) Heating System Applications***

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. ***Prerequisite: (601-135) Electrical Controls & Systems***

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 and Troubleshooting HVAC/R 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. ***Prerequisites: (601-140) Control Circuit Applications, (601-150) Air Conditioning Applications, (601-155) Refrigeration Applications or equivalent work experience***

631-120 Industrial 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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Written Communication	3 Credits
801-196 Oral/Interpersonal Communication	3 Credits
804-105 General Mathematics	3 Credits
809-195 Economics	3 Credits
809-196 Introduction to Sociology	3 Credits
809-198 Introduction to Psychology	3 Credits

Airframe and powerplant mechanics keep aircraft in peak operating condition, perform scheduled maintenance, make repairs, and complete inspections required by the Federal Aviation Administration (FAA). Technicians may work on many types of aircraft, such as jets, propeller-driven airplanes, and helicopters, or, for efficiency, may specialize in one section of a particular type of aircraft, such as engine, hydraulic system, or electrical system. As a result of technological advances, technicians spend increasing amounts of time repairing electronic systems such as computerized controls. In small, independent shops, technicians usually inspect and repair many different types of aircraft. The student learns to make decisions on the airworthiness of aircraft structures, systems, engines, propellers and components after performing inspections, repairs, alterations and maintenance on airworthy aircraft engines and components.

The student is trained to work on piston and jet powered aircraft, helicopters, piston and turbine engines. Students are required to do work of the highest airworthy standards. Maturity and ability to do precision work is essential for success in this program.

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

- Integrate safety protocol
- Locate and interpret repair specifications, processes, and procedures
- Operate tools and equipment
- Remove and replace components
- Repair defective components and systems
- Service components or systems
- Diagnose the condition of components or systems
- Maintain academic status
- Maintain attendance requirements per Federal Aviation Administration FAR 147 Manual

Graduates from this program have found employment as:

- Aircraft Mechanic
- Aviation Maintenance Technician
- Aircraft & Engine Mechanic
- Aircraft Apprentice
- Repairman
- Aircraft Inspector
- Aircraft Sheet Metal Technician

Career Outlook:
There is a high demand for qualified aviation maintenance technicians. Opportunities exist in both general and commercial aviation. Upon completion of this two-year program, graduates are qualified to take Federal Aviation Administration written, oral and practical tests. The program offers training on the same airworthy aircraft and engines as found in the field.

	Course Name	Credits	Lec-Lab
Semester 1			
402-305	Aviation Basic Science I	2	3 - 1
402-306	Aviation Basic Electricity	2	3 - 1
402-307	Materials & Processes I	3	3 - 2
402-308	Aircraft Metal Structures	3	3 - 2
402-309	Basic Turbine Engines	2	2 - 2
801-311	Communication	2	3 - 0
806-333	Aviation Physics	2	3 - 1
Semester 2			
402-334	Aviation Basic Science II	2	2 - 2
402-335	Aircraft Systems I	3	3 - 2
402-336	Aircraft Electrical Distribution Systems	3	3 - 3
402-337	Materials & Processes II	3	3 - 2
402-338	Nondestructive Inspection Techniques	2	1 - 2
402-339	Turbine Engine Systems	3	3 - 3
Semester 3			
402-344	Aircraft Assembly and Rigging	3	3 - 2
402-345	Aircraft Propellers	2	2 - 2
402-346	Aircraft Electrical Charging Systems	2	2 - 2
402-347	Aircraft Nonmetal Structures	2	2 - 2
402-348	Basic Reciprocating Engines	4	4 - 3
402-349	Advanced Turbine Engines	3	3 - 2
Semester 4			
402-390	Aircraft Landing Gear	2	2 - 2
402-391	Aircraft Systems II	3	3 - 2
402-392	Aircraft Electronics	2	2 - 2
402-393	Reciprocating Engine Systems	4	4 - 3
402-394	Advanced Reciprocating Engines	3	3 - 3
402-395	Aircraft Inspection	2	2 - 1
TOTAL CREDITS		***64***	

Note: Courses are taken in sequential order by semester unless otherwise approved by the instructor

Course Descriptions

402-305 Aviation Basic Science I **2 Credits**
This course will introduce the beginning student to ground handling, ground movement, and servicing of a variety of aircraft to include the proper selection of appropriate fuels, oils, and hydraulic fluids. The student will start, ground operate and secure aircraft. The student will also be introduced to aircraft fuel management systems, including fueling, dumping, transferring and defueling. The student will be introduced to aircraft technical data and be required to read and interpret this data accurately through the study of various FAA and manufacturer publications. The student will write descriptions on work performed, and accurately complete various forms, records, and reports.

402-306 Aviation Basic Electricity 2 Credits
This course will introduce beginning students to the basics of direct current and alternating current electricity. The student will be able to calculate and measure voltage, current, and resistance in both direct current and alternating current electricity. The student will use a multimeter and be introduced to basic circuit schematics.

402-307 Materials and Processes I 3 Credits
This course will introduce the student to the materials and processes used on airframes and power plants. The student will fabricate fluid lines, study heat- treating and aircraft hardware, and make precision measurements. The student will gas weld, arc weld, solder and braze, and inspect welded joints.

402-308 Aircraft Metal Structures 3 Credits
In this course the student will study and use special fasteners for metal structures. The students will layout, bend, form, and repair sheet metal structures and components.

402-309 Basic Turbine Engines 2 Credits
This course will introduce the beginning student to the basic operation of aircraft turbine power plants. The student will be introduced to turbine engines theory and study each section of the turbine engine. The student will disassemble an aircraft turbine engine and study and repair lubrication systems and components.

402-334 Aviation Basic Science II 2 Credits
During this course, the aviation student is introduced to aircraft drawings, weight, and balance. The student will use aircraft drawings, symbols and schematics. The student will make various drawings and sketches and will perform complete weight and balance checks on an aircraft using blueprints, charts and graphs, and record the data appropriately.

402-335 Aircraft Systems I 3 Credits
During this course the student will be introduced to hydraulic and pneumatic power systems as well as aircraft heating, cooling and pressurization systems. The student will study and repair hydraulic and pneumatic system components and service and troubleshoot hydraulic systems. The student will become familiar with aircraft air cycle machines as well as heaters and vapor cycle systems used for heating and cooling.

402-336 Aircraft Electrical Distribution Systems 3 Credits
This course uses the principles learned in Aviation Basic Electricity and applies them to the aircraft's electrical distribution system. The student will study and service lead acid and nickel cadmium batteries. The student will also select wires, crimp, splice, and repair pins and sockets of aircraft electrical connectors. The student will study and service wiring, controls, switches, indicators and protective devices in airframe and engine electrical distribution systems.

402-337 Materials and Processes II 3 Credits
This course will introduce the student to the process of corrosion and how to identify it, remove it, and treat it on aircraft. The student will also study aircraft finishing materials and apply trim, letters, and finishing materials and be able to identify defects in aircraft finishes.

402-338 Nondestructive Inspection Techniques, 2 Credits
In this course the student will explore the rapidly expanding field of nondestructive testing. The student will study and select appropriate testing methods for aircraft applications and will also perform dye penetrant, eddy current, ultrasonic, and magnetic particle inspections on test samples and on aircraft and aircraft parts.

402-339 Turbine Engine System 3 Credits
This course is an extension of Basic Turbine Engines and further explores aircraft turbine engines. In this course the student will study starting systems, fuel metering and fuel systems. The student will study turbine engine ignition systems, as well as turbine driven auxiliary power units. The student will reassemble a turbine engine throughout the progress of this course.

402-344 Aircraft Assembly and Rigging 3 Credits
In this course the student will be introduced to basic aircraft aerodynamics so as to understand how and why aircraft are constructed the way they are. The student will study the theory of flight for both fixed wing and rotary wing aircraft. The student will balance, assemble, and rig aircraft structures as well as primary and secondary control surfaces. The student will be taught to check alignment of structures and how to rig both fixed wing and rotary wing aircraft.

402-345 Aircraft Propellers 2 Credits
In this course the student will study propellers driven by both reciprocating and turbine aircraft engines. The student will study, inspect, and service propellers and propeller control systems. The student will learn to install and remove propellers and repair aluminum blades.

402-346 Aircraft Electrical Charging Systems 2 Credits
This course builds upon Aviation Basic Electricity and Aircraft Electrical Distribution Systems. The student will study how electrical power is supplied to the distribution system. The student will study, disassemble, assemble and check generators and alternators. The student will study and inspect integrated constant speed drive generators. The student will inspect, adjust, and troubleshoot alternating and direct current electrical systems. The student will study how charging systems are regulated, and adjust regulators.

402-347 Aircraft Non-metal Structures **2 Credits**
This course will introduce the student to airframe structures that are not made of metal. The student will review the use of wood and fabric materials in aircraft construction and then study the use of composite structures. The student will study and use special fasteners for non-metal structures. The student will study, inspect, and repair bonded structures, fiberglass structures, honeycomb, and composite structures. The student will study the use of plastics in aircraft and inspect and repair plastic components.

402-348 Basic Reciprocating Engines **4 Credits**
This course will introduce the beginning student to the basic operation of aircraft reciprocating power plants. The student will be introduced to reciprocating engine theory and study each section of the reciprocating engine. The student will disassemble an aircraft reciprocating engine and study and repair lubrication systems and components.

402-349 Advanced Turbine Engines **3 Credits**
This course will build upon Basic Turbine Engines and Turbine Engine Systems by requiring the student to install a turbine engine on an aircraft. Concurrently, the student will study and install or inspect induction systems, cooling, and exhaust systems. The student will be able to run, inspect, and check a turbine engine installation. The student will study and accomplish troubleshooting of operating turbine engine installations.

402-390 Aircraft Landing Gear **2 Credits**
This course will introduce the student to aircraft landing gear, struts, wheels, tires, brakes, steering systems, and anti-skid systems. The student will learn to safely jack aircraft as they study and service each of these systems or components. Basic electricity skills are essential to properly understand and service anti-skid systems.

402-391 Aircraft Systems II **3 Credits**
In this course, the student will draw upon previous knowledge of electricity, physics, drawing, turbine engines, and aircraft systems to study and understand various aircraft supporting systems. The student will study instrument systems, including flight and engine instruments, fluid, temperature, pressure, and quantity systems, remote position indicating systems, weather, and stall warning systems. The student will be able to remove and install aircraft instruments and perform instrument static system leak checks. The student will study landing gear position systems, and ice and rain protection systems, as well as fire detection and suppression systems. Basic electricity skills are essential to properly understand and service these systems.

402-392 Aircraft Electronics **2 Credits**
This course will build upon Aviation Basic Electricity, Aircraft Electrical Distribution Systems, and Aircraft Electrical Charging Systems in order to help the student understand basic electronics as appropriate for an entry level Aviation Maintenance Technician. The student will study and interpret aircraft electrical circuit diagrams including solid-state devices and logic functions. The student will study electronic flight instrument systems, electronic flight communication and navigation systems, and autopilot and approach coupling systems. The student will study, inspect, and repair antenna installations.

402-393 Reciprocating Engine Systems **4 Credits**
This course is an extension of Basic Reciprocating Engines and further explores aircraft reciprocating engines. In this course the student will study airframe and reciprocating engine fuel systems, and overhaul a carburetor. The student will study, service, and troubleshoot fuel metering and fuel injection systems. The student will study, install, and inspect ignition systems. Throughout the progress of this course, the student will reassemble a reciprocating engine.

402-394 Advanced Reciprocating Engines **3 Credits**
This course will build upon Basic Reciprocating Engines and Reciprocating Engine Systems by requiring the student to install a reciprocating engine on an aircraft or run stand. Concurrently, the student will study reciprocating engine induction systems including heat exchangers, superchargers and turbochargers, air intakes, and induction manifolds. The student will study cooling and exhaust systems. The student will be able to run, inspect, and check a reciprocating engine installation. The student will study and accomplish troubleshooting of operating reciprocating engine installations.

402-395 Aircraft Inspection **2 Credits**
This course will serve to encapsulate all of the skills the technician-in-training has learned up to this point. The student will study various FAA and manufacturer publications. The student will exercise the privileges of FAR Part 65, in a simulated setting, by inspecting an aircraft and its powerplant. The student will write descriptions of work performed, and accurately complete various forms, records, and reports.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-311	Communication	2 Credits
806-333	Aviation Physics	2 Credits

An apprenticeship is a training program that involves an agreement with an employer or an employer/employee agency. It is an ideal learning situation combining work experience with related classroom training. BTC provides classroom instruction to apprentices in the following skilled trades:

- Electrical
- Plumbing

An apprentice training program is a legally-constituted program of education set up under Wisconsin state law in such a way that the employer and the apprentice are fairly treated under a contractual agreement. Apprentice programs vary in length from one to six or more years. During this time, the apprentice is assured of receiving well-rounded training in his or her selected field, and the employer is assured of having a skilled employee.

This training is accomplished through the cooperative efforts of the Bureau of Apprenticeship Standards, Department of Workforce Development, which supervises the work of the apprentice on the job to see that it meets standards set for that particular trade; the employer, who provides work experience for the apprentice; and BTC, which provides instruction in trade technology and related sciences.

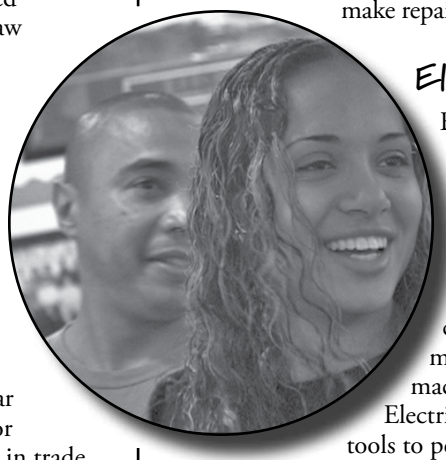
To be eligible for apprenticeship training, a person must be employed in the field and meet the application and testing procedures of the trade in which he or she wishes to participate. The rules and policies for apprenticeship may vary because of policies set forth by outside agencies and advisory committees.

Apprenticeship Information

Prospective applicants for apprenticeship may receive information by contacting **Nancy Lightfield at: 608•743•4472 or nlightfield@blackhawk.edu**

Plumbing

Plumbers install pipes for water, gas, sewage, and drainage systems. They also install sanitary facilities such as lavatories, toilets, tubs, bathroom fixtures, showers, kitchen fixtures, drinking fountains, and laundry equipment. Plumbers install pipe systems, using both hand and power tools to cut, bend and thread pipes, and to make welded and soldered joints. Plumbers must also run tests on their installations to assure that the system is functioning properly and meets the Plumbing Code. They are often called upon to clear pipelines and drains and to make repairs on faucets, valves, and leaky pipes.



Electrical

Electricians lay out, install, and test electrical fixtures; they also install electrical wire systems used to provide heat, light, power, air conditioning, and refrigeration in homes, office buildings, factories, hospitals, and schools. They install conduit, greenfield, and other materials and connect electrical machinery, equipment, and controls. Electricians use a wide variety of hand tools to perform various tasks. Journeylevel electricians must master both mechanical and technical skills. They must understand the use of meters and specialized testing equipment, be adept at troubleshooting, and understand the theory behind the transmission of electrical energy. Work is performed both indoors and outdoors in a variety of weather conditions.

ASSOCIATE DEGREE IN TECHNICAL STUDIES–Journeyworker

The Associate Degree in Technical Studies–Journeyworker is designed for individuals who possess a Journeylevel Certificate with a minimum of 400 hours of apprenticeship-related instruction from the Wisconsin Technical College System or equivalent. This degree builds upon previous technical training through the addition of 18 credits of general education and technical support and 6-14 credits of occupational support courses. It is designed to enhance technical apprenticeship training by providing courses in social science, math, behavioral science, communications, and student-selected Associate Degree-level courses.

Program Requirement	**Credits**
• Journey level Certificate (400 hour min.)	32-40
• Associate Degree-level Courses Student-selected occupational support	6-14
• General Education	18
Communications	(6 cr. min.)
Social Science	(3 cr. min.)
Behavioral Science	(3 cr. min.)

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

In the first year students learn to test the operation of the engine, transmission, steering gear and brakes; plan work; use charts and repair manuals; conduct tests on engines, cooling systems, electrical systems, and other parts; prepare records and costs; and fill out estimates of repairs for customers.

The second year of the program prepares the service technician for the challenging field of performance diagnostics. Special emphasis is placed on the development of problem-solving skills. The technician solves complex automotive problems through component analysis and functional testing. Experience is gained in advanced electronics through the use of service manuals, diagnostic computers, lab oscilloscopes and digital volt ohmmeters.

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

- Integrate safety protocols
- Deliver high levels of customer service (satisfaction)
- Operate tools and equipment
- Perform corrective required diagnosis/service/repair, returning vehicles to operational condition
- Demonstrate acquired technical knowledge
- Practice competencies on current technology

Graduates from this program 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	Lec-Lab
Semester 1			
404-338	Service Fundamentals	2	1 - 2
404-343	Automotive Machine Shop	1	1 - 1
404-345	Brake Service	3	2 - 3
404-346	Steering and Suspension Service	3	2 - 4
404-347	Drive Train Service I	2	1 - 2
404-348	Service Simulation	2	0 - 6
801-311	Communication	2	3 - 0
Semester 2			
404-339	Engine Service	3	2 - 3
404-341	Engine Performance Testing I	3	2 - 3
404-342	Heating and Air Conditioning Service	3	2 - 4
404-344	Electrical Service I	2	1 - 2
404-349	Service Management	1	0 - 2
804-304	Math Fundamentals	2	3 - 0
806-315	Applied Science	2	3 - 0
Semester 3			
404-350	ASE Certification Review	1	2 - 0
404-351	Electronic Engine Control Fund.	4	2 - 5
404-352	Computerized Fuel Systems Service	2	1 - 3
404-353	Emission Control Service & Cert.	1	1 - 1
404-356	Electrical Service II	4	2 - 5
Semester 4			
450-315	Customer Service Fundamentals	2	3 - 0
404-354	Engine Performance Testing II	4	2 - 5
404-355	Drive Train/Transaxle Service II	2	1 - 3
404-357	Electronic Engine Control Diagnosis	2	1 - 3
404-358	Service Internship	2	0 - 8
TOTAL CREDITS		***55***	

The competencies developed for successful completion of this two-year automotive diploma program will satisfy the related standards required by ASE and their certificate program.

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 **3 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 Testing 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 and Air Conditioning Service 3 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.

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 3 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 and Suspension Service 3 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 2 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 Fund. 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 & Cert. 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 II 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 II 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 overview of engine computer function, computerized fuel delivery, emission controls, and computer chassis control is included.

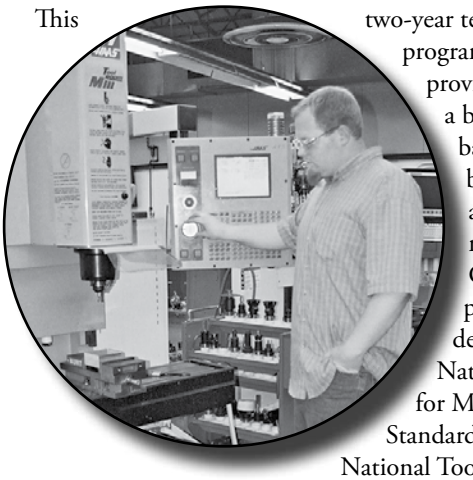
404-358 Service Internship 2 Credits
Students wishing for hands-on shop experience can obtain four credits for on-the-job training related directly and in cooperation with a service facility. Prior consent of automotive instructor is required. The student completes a comprehensive study after successfully completing the intern requirements.

450-315 Customer Service Fundamentals 2 Credits
This course is designed to instruct students on the principles of service calls and customer relations skills needed for the successful service technician.

General Education Course Requirements:

(see course descriptions on pages 36-39)

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



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

Using the latest CNC/CAM software and equipment, including a five axis machining center, you will learn to select the proper tools and fixtures required to machine parts. A graduate of the program will 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 Drafting (CAD); and Computer Assisted Manufacturing (CAM) software; precision measuring devices including a CMM; precision CNC bed and knee mills, lathes, and machining centers; blueprint reading; and applied shop mathematics. Finally, an internship is required for graduation.

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

- 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 from this program 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

Career Outlook:
Job opportunities continue to be excellent for CNC Technicians, as employers continue to report difficulties in finding workers with the necessary skills and knowledge to fill machining and CNC programming openings. Many job openings will arise each year from the need to replace experienced CNC machinists and programmers who transfer to other occupations or retire.

	Course Name	Credits	Lec-Lab
Semester 1			
421-385	Blue Print Reading	2	2 - 2
444-300	Shop Computing	2	2 - 2
444-301	Metrology[1]	2	2 - 2
444-302	Semi-precision Machining[1]	2	2 - 2
444-303	Turning Fundamentals[1]	2	2 - 2
444-304	GD&T Interpretations[1]	1	2 - 0
804-306	Shop Math I[1]	2	3 - 0
804-308	Shop Math II[1]	2	3 - 0
Semester 2			
444-305	Milling Fundamentals[1]	2	2 - 2
444-306	Turning Applications[1]	2	2 - 2
444-307	Manufacturing Support Systems[1]	1	2 - 0
444-308	Milling Applications[1]	2	2 - 2
444-309	CNC Fundamentals[1]	2	2 - 2
444-310	Grinding & Gear Techniques[1]	2	2 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
806-118	Metal Science	3	3 - 0
Semester 3			
444-311	CNC Turning - Operations[1]	2	2 - 2
444-312	CNC Turning – Operations and Programming I[1]	2	2 - 2
444-313	Tooling & Workholding[1]	2	2 - 2
444-314	CMM Techniques[1]	2	2 - 2
444-315	CNC Milling - Operations[1]	2	2 - 0
444-316	CNC Milling – Operations and Programming I[1]	2	2 - 2
804-309	Shop Math III[1]	2	3 - 0
Semester 4			
444-318	CNC Milling – Operations and Programming 2[1]	2	2 - 2
444-319	CNC Turning – Operations and Programming 2[1]	2	2 - 2
444-320	CNC Milling - Operations and Programming 3[1]	2	2 - 2
444-321	Basic CAD/CAM[1]	2	2 - 2
444-324	Intermediate CAD/CAM[1]	2	2 - 2
444-325	CNC Technician Internship[1]	1	0 - 4
801-195	Written Communication	3	3 - 0
TOTAL CREDITS		***60***	

[1]Course has prerequisites

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.

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. The student will receive an introduction to CAM software, CAD software, CNC Workbook (textbook) software, and CMM software.

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. ***Prerequisite: 444-300 Shop Computing or consent of instructor***

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. ***Prerequisite: Successfully completed the Shop Practices and 444-300 Shop Computing courses.***

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. ***Prerequisite: 444-301 Metrology and 444-300 Shop Computing***

444-304 GD&T Interpretations **1 Credit**
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. ***Prerequisite: 421-385 Blueprint Reading or experience in reading mechanical drawings***

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. ***Prerequisite: 444-301 Metrology and 444-300 Shop Computing***

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. ***Prerequisite: 444-303 Turning Fundamentals***

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. ***Prerequisite: Shop Practices or consent of instructor***

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. ***Prerequisite: 444-305 Milling Fundamentals***

444-309 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. ***Prerequisite: 444-300 Shop Computing***

444-310 Grinding & 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. ***Prerequisite: Successfully completed the Milling Concepts Shop Computing courses***

444-311 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. ***Prerequisite: 444-309 CNC Fundamentals, exposure to CNC machines, or consent of instructor.***

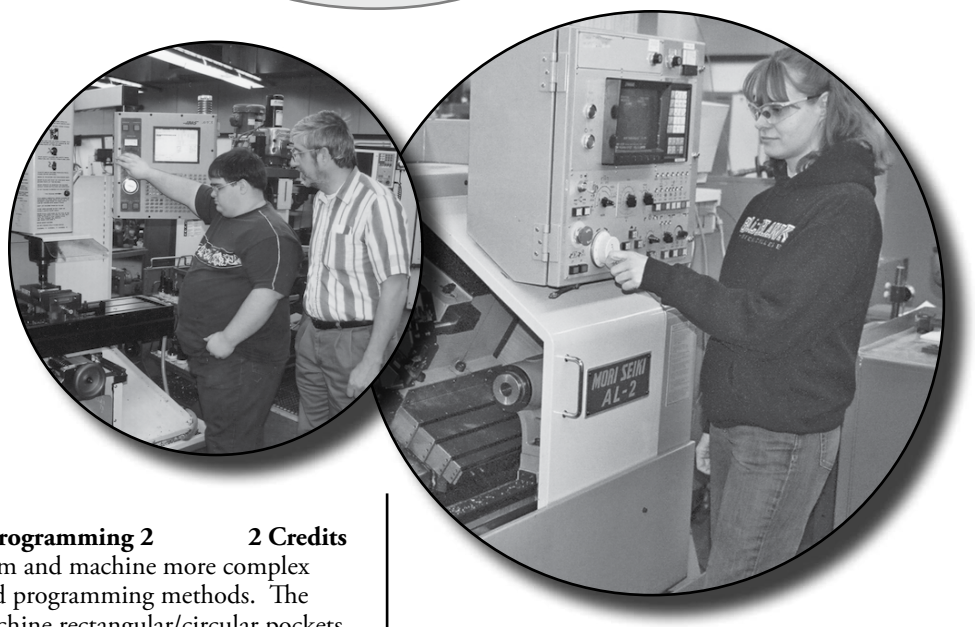
444-312 CNC Turning-Operations & Programming 1 **2 Credits**
This course introduces the student to the programming process for CNC Turning Centers. The student will learn to create very simple programs and to run them on the machine. Students will learn about program structure and style. Students will 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. ***Prerequisite: 444-311 CNC Turning - Operations or exposure to CNC turning centers***

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. ***Prerequisite: 444-305 Milling Fundamentals and 444-306 Turning Applications***

444-314 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. ***Prerequisite: 444-300 Shop Computing, 444-303 Turning Fundamentals, 444-305 Milling Fundamentals and 444-307 Manufacturing Support Systems***

444-315 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. ***Prerequisite: 444-309 CNC Fundamentals, exposure to CNC machines or consent of instructor***

444-316 CNC Milling - Operations & 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. ***Prerequisite: 444-315 CNC Milling-Operations or exposure to CNC machining center***



444-318 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. ***Prerequisite: 444-316 CNC Milling - Operations and Programming 1***

444-319 CNC Turning - Operations & 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. ***Prerequisite: 444-312 CNC Turning - Operations and Programming 1***

444-320 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. ***Prerequisite: 444-318 CNC Milling-Operations and Programming 2***

444-321 Basic CAD/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. ***Prerequisite: 444-309 CNC Fundamentals or consent of instructor***

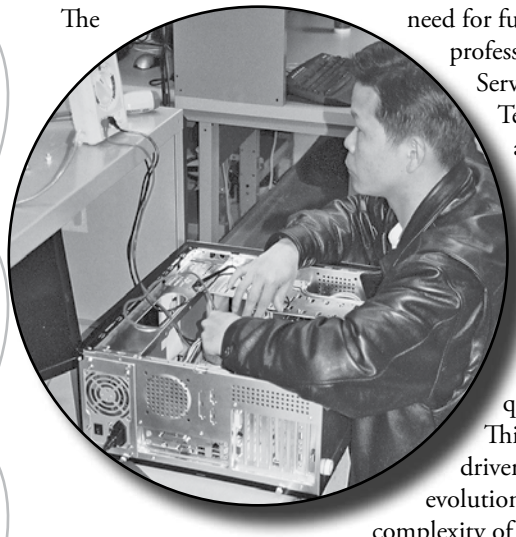
444-324 Intermediate CAD/CAM — 2 Credits
Using Virtual Gibbs, students will learn to create machining operations for additional milled/turned part features. They will create machining operations for threading, pockets, bored holes, and text. The student will then learn to create simple 3-D shapes (solids) 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. ***Prerequisite: 444-321 Basic CAD/CAM***

444-325 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. ***Prerequisite: CNC Milling-Operations & Programming 3, CNC Turning-Operations & Programming 2 or consent of instructor.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Written Communication	3 Credits
801-196 Oral/Interpersonal Communication	3 Credits
804-306 Shop Math I	2 Credits
804-308 Shop Math II	2 Credits
804-309 Shop Math III	2 Credits
806-118 Metal Science	3 Credits



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

This practical program provides extensive hands-on training with PC hardware, operating systems, and networks needed to keep PC-based systems 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 systems as the technology continues to evolve.

In order to stay competitive, many technicians enhance their credentials by obtaining A+ Certification. A+ Certification is a nationally recognized, industry-wide standard that certifies the competency of service technicians and other individuals in the microcomputer industry. Independent technicians with this certification gain immediate credibility and a competitive edge.

The Network+ Certification is the industry standard for Network Technicians. As PC and network technologies continue to merge, dual certification in both A+ and Network+ will become a requirement for success. The CST program will prepare you for BOTH certifications.

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

- 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 from this program 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

Career Outlook
Employment of those who repair computers is expected to grow much faster than the average for all occupations. Demand for computer technicians will increase as the amount of computer equipment increases. Organizations throughout the economy will continue to automate in search of greater productivity and improved service. The development of new computer applications and lower computer prices will also spur demand. More technicians will be needed to install, maintain, and repair these machines.

	Course Name	Credits	Lec-Lab
Core Courses			
631-100	Microcomputer Fundamentals	3	2 - 2
631-101	Troubleshooting Operating Systems	3	2 - 2
450-315	Customer Service Fundamentals	2	3 - 0
Computer Hardware Support Certificate Courses			
631-102	Microcomputer Hardware Service	3	2 - 2
450-316	Microcomputer Software Service	2	2 - 2
450-317	Troubleshooting Microcomputers	2	2 - 2
Network Support Certificate Courses			
450-319	Microcomputer Peripherals	2	2 - 2
450-320	Troubleshooting Communications Sys	2	2 - 2
631-115	LAN/WAN Fundamentals	3	2 - 2
450-321	Troubleshooting Network Hardware	2	2 - 2
631-116	Troubleshooting Network Oper. Sys.	3	2 - 2
Occupational Support			
450-322	Service Support Techniques	1	0 - 4
631-117	PC & Networking Technology Update	3	2 - 2
801-195	Written Communication	3	3 - 0
804-110	Elementary Algebra with Applications	3	3 - 0

Certificate Options

Computer Hardware Support Certificate	***15***	***13 - 10***
Network Support Certificate	***20***	***17 - 14***
Computer Service Technician Tech. Diploma	***37***	***31 - 26***

Course Descriptions

450-315 Customer Service Fundamentals 2 Credits
This course is designed to instruct students on the principles of service calls and customer relations skills needed for the successful field service technician. Practical interviews and role playing are included in this course, with emphasis on phone and electronic support skills.

450-316 Microcomputer Software Service 2 Credits
This course covers a number of different software topics: familiarization with popular business applications, computer virus eradication, software compression, and application troubleshooting.

450-317 Troubleshooting Microcomputer 2 Credits
This course culminates the three core courses and the two previous Hardware Support courses in an advanced diagnosis and repair course that, on completion, will mark the achievement of the Computer Hardware Support Certificate for the learner. Hands-on PC troubleshooting skills are emphasized.

450-319 Microcomputer Peripherals 2 Credits
This course focuses on printers, the specialized functions of various kinds of printers, and printer troubleshooting. Digital input and data protection devices will also be examined.

450-320 Troubleshooting Communications Systems 2 Credits
This course focuses on communications systems diagnosis and repair. Emphasis is placed on printer repair and connection troubleshooting with technologies such as SCSI, USB, FireWire and Telephony.

450-321 Troubleshooting Network Hardware 2 Credits
This course covers network hardware installation, configuration and troubleshooting in both peer-to-peer and server-based environments, cable installation, certification, and troubleshooting is emphasized. Wireless networking is also utilized.

450-322 Service Support Techniques 1 Credit
This course provides an opportunity to apply concepts, principles and skills learned in the CST program in the workplace. Emphasis is placed on applying skills to job tasks, modeling core abilities and seeking a job.

631-100 Microcomputer Fundamentals 3 Credit
This course first covers the binary functionality of the personal computer. The computer industry itself is then examined before the course moves to hands-on construction and troubleshooting of PC hardware. Like most CST courses, this course contains a self-paced study portion *(text, video and computer-based)* and a hands-on lab and assessment portion, where the learners work with the instructor and one another to perfect their skills.

631-101 Troubleshooting Operating Systems 3 Credits
This course focuses on Windows 98, Me, 2000 and XP. The learner will be able to install, use, customize and troubleshoot each operating system.

631-102 Microcomputer Hardware Service 3 Credits
In this course the learner examines PC hardware components in-depth, covering the history of the technologies, the current technologies, installation techniques, and selection criteria. The learner then incorporates this knowledge into actual installation and troubleshooting scenarios.

631-115 LAN/WAN Fundamentals 3 Credits
This course covers the basic theories and technologies involved in local and wide area networks. Both the physical and logical aspects of networks will be studied, with emphasis placed on the common office LAN.

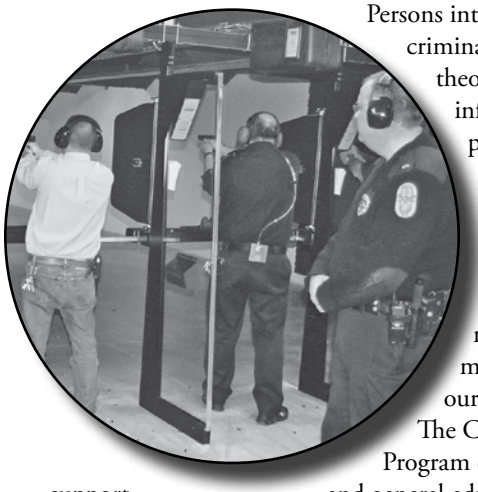
631-116 Troubleshooting Network Operating Systems 3 Credits
This course centers on the installation, configuration and troubleshooting of network operating systems on client PC's. Windows 2000, Windows XP and Linux are utilized in this course that is designed to prepare the network technician for a variety of networked environments. Security, resource sharing and troubleshooting are emphasized.

631-117 PC & Networking Technology Update 3 Credits
As PC and Network technology evolves, so must the PC and/or Network technician. This course provides detailed hands-on training in those technologies that are emerging in the home and enterprise environment. 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. Possible topics include PCI-X, wireless networking hardware, the latest in PC network operating systems, and serial-ATA technologies.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Credits	Written Communication	3
804-110 Credits	Elementary Algebra with Applications	3
	OR	
804-133 Credits	Mathematics & Logic	3



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

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

- Interpret applicable criminal statutes.
- Explain the criminal justice process and juvenile justice process.
- Recommend strategies for effective community/police relationships.
- Complete required documents and reports.
- Conduct preliminary investigations.
- Choose lawful and ethical courses of action in professional and personal situations.
- Reference and utilize resources in decision making.

Police Officers are charged with the responsibility of protecting life and property and preserving the peace. Police officers carry out this charge through patrol, detection, arrest and their critical role in prosecution of criminal offenders. Officers also aid in public safety through traffic law enforcement, accident prevention and investigation, juvenile guidance and many other specialized enforcement tasks.

A job in law enforcement requires a comprehensive background check on the individual applying for such a job. State and Federal law prevent any person from becoming a police officer who has an unpardoned felony conviction. In Wisconsin, a domestic violence related conviction can prohibit a person from becoming a police officer. People interested in becoming police officers should be of good character as determined by interview and a comprehensive background check.

Hands-on training is a significant part of the Criminal Justice Associate Degree program at Blackhawk Technical College.

As A BTC Criminal Justice Student you will:

- Use a computerized, user-interactive automated firearms training simulator to hone your skills in making split second decisions on whether the use of deadly force is appropriate in a particular situation.
- Make traffic stops using fully equipped police squad cars.
- Conduct interviews of "suspects."
- Take statements and present written documentation of investigations.
- Write police reports.
- Fully process crime scenes, including collection and preservation of evidence.

Criminal Justice Program Sequence of Courses
*****Criminal Justice Program courses (beginning with 504) must be taken in sequential order by semester*****

	Course Name	Credits	Lec-Lab
1st Semester			
504-100	Introduction to Criminal Justice	3	3 - 0
504-136	Constitutional Law	3	3 - 0
504-121	Criminal Law	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
801-198	Introduction to Psychology	3	3 - 0
2nd Semester			
504-165	Community Policing Strategies	3	3 - 0
504-118	Professional Police Communications	3	3 - 0
504-122	Juvenile Law	3	3 - 0
801-195	Written Communication	3	3 - 0
801-105	General Math	3	3 - 0
809-159	Abnormal Psychology	3	3 - 0
Summer			
504-176	Law Enforcement Module *(Law Enforcement Track Students)*	3	3 - 0
3rd Semester			
504-112	Criminal Investigation Theory	3	3 - 0
504-141	Report Writing	3	3 - 0
809-174	Social Problems	3	3 - 0
809-195	Introduction to Sociology	3	3 - 0
	Elective	3	3 - 0
4th Semester			
504-124	Police Organization and Administration	3	3 - 0
504-101	Traffic Theory *(Law Enf. Track only)* OR	3	3 - 0
504-137	Introduction to Corrections (Non-Law Enf. Track students)	3	3 - 0
504-142	Advanced Report Writing	3	3 - 0
806-110	Forensic Science (Criminalistics)	3	2 - 2
	Elective	3	3 - 0
TOTAL CREDITS		***66***	

Elective offered by the Criminal Justice Department:

504-102	Police Issues and Functions	3	3 - 0
504-119	Introduction to Probation and Parole	3	3 - 0
504-170	Criminal Justice Internship	3	0 - 12

Other suggested electives for Criminal Justice Students:

140-101	Spanish Language & Culture *(to be taken before 140-102)*	3
140-102	Spanish Language & Culture II: Emergency Services Personnel	3

(The Criminal Justice Department at BTC also offers full 520 hour police recruit academies *(See page 134 of this catalog).*

Potential Employment Opportunities
Police Officer, Correctional Officer, Private Security, Conservation Warden, Probation/Parole Agent, Police Dispatcher and Juvenile Detention Worker.

Wisconsin Law Enforcement Officer Certification Track Option for BTC Criminal Justice Students

In order to become certifiable as a police officer in Wisconsin, The State of Wisconsin-Law Enforcement Standards Board (LESB) requires successful completion of a 520 hour training curriculum (police academy training). The BTC Criminal Justice Program has been authorized by LESB and has incorporated the majority of the LESB training curriculum into the Criminal Justice Associate Degree program. This allows qualified program students to follow a law enforcement certification track, if they choose, while working on their Associate Degree in Criminal Justice. If you follow the law enforcement certification track rules and guidelines, you will have completed approximately 60% of the Law Enforcement Academy by successfully completing the Associate Degree program. Those students who successfully complete the law enforcement certification track of the Associate Degree become eligible to attend a "mini" academy to become certifiable as a police officer. The "mini" academy will cover the remaining topics (approximately 40%) of the LESB training curriculum. The "mini" academy will commence the June after your graduation, meet approximately 8 hours per day, and run into the first few weeks of July.

Note: "Certifiability" is valid for two years from the date of your graduation from the mini-academy. Your Law Enforcement Certification becomes active once you are hired by a law enforcement agency

Qualifications for the Law Enforcement Track:

- Complete all Criminal Justice Program courses with a C or above.
- Absent no more than five hours of instruction in any Criminal Justice Program Course
- Successfully complete the "Law Enforcement Module" course offered for two weeks in the summer between the first and second year of the program.
- Be selected through an interview process by the Law Enforcement Certification Track Committee for participation at the completion of the first and second semester courses.
- After graduation from the Associate Degree Program; must successfully complete "mini" academy requirements including Defense and Arrest Tactics, Emergency Vehicle Operators Course, Firearms, Standardized Field Sobriety Testing, and scenario based assessment based on LESB 520 curriculum.

Course Descriptions

140-101 Spanish Language & Culture 3 Credits
This elective course is an introduction to the basic concepts of the Spanish language and culture (This course should be taken by those with very little or no knowledge of the Spanish language and prior to taking 801-115 Intercultural Communications for Emergency Personnel).

140-102 Spanish Language & Culture II: Emergency Services Personnel 3 Credits
This is and intermediate level course for emergency services personnel to use the Spanish language in police-related and emergency situations. Also included is and introduction to aspects of Hispanic culture that will help effectiveness in police related emergency situations *(can be taken as elective after 140-101 or demonstrated knowledge of basic Spanish).*

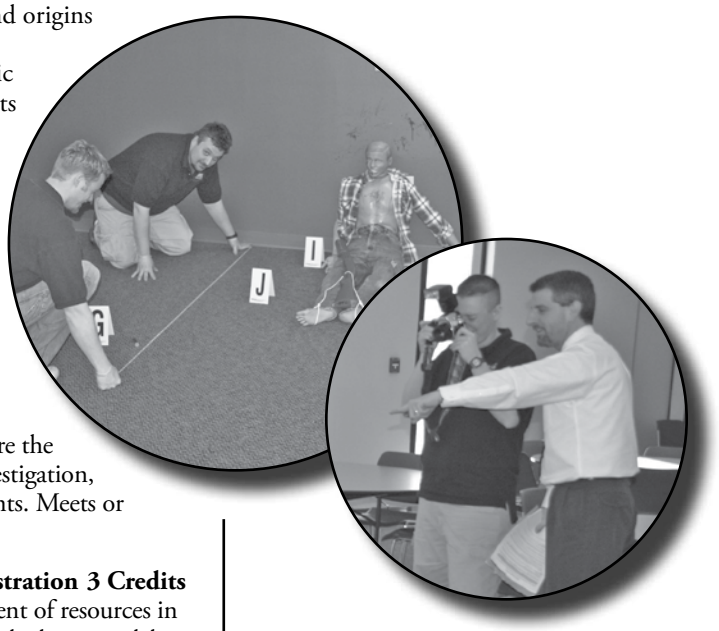
504-102 Police Issues and Functions 3 Credits
This course is designed to review the various functions and issues related to policing in modern day society. I will examine a wide range of current issues facing the law enforcement professional.

504-112 Criminal Investigation Theory 3 Credits
Students learn the importance of, how to recognize, process, and preserve physical evidence. Also includes practical applications which involve the proper documentation, interviewing, and processing of simulated crimes against persons. Scenarios will include death, domestic violence, sexual assault, and crimes against children. Also stressed is the role of law enforcement to victims of crimes. Meets or exceeds LESB 520 performance objectives.

504-118 Professional Police Communications 3 Credits
This course familiarizes the student with the basic communication process utilized by law enforcement professionals. Students will demonstrate effective communication techniques for various professional contacts, conflict resolution and court proceedings. Also reinforced is how appropriate communication techniques are integrated in the system of unified tactics. Meets or exceeds LESB 520 performance objectives.

504-119 Introduction to Probation and 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.

504-121 Criminal Law **3 Credits**
This course is a study of the basic concept and origins of criminal law as well as the balancing of Constitutional rights with the need for public order. The course looks closely at the elements of various crimes such as crimes against the person, against property, sex crimes and other prohibited criminal conduct. Meets or exceeds LESB 520 performance objectives.



504-122 Juvenile Law **3 Credits**
This course examines the philosophies and differences between the juvenile justice system as compared with the adult system. Course also address constitutional issues and juvenile custody procedures. Also examined are the types of child maltreatment as well as the investigation, reporting, custody and referral of such incidents. Meets or exceeds LESB 520 performance objectives.

504-124 Police Organization and Administration 3 Credits
This is a study of coordination and management of resources in the field of law enforcement. Also studied are the basic guidelines of administrative policy and unification of personal and organizational goals into a meaningful administrative strategy.

504-136 Constitutional Law **3 Credits**
This course introduces the structure of the criminal justice system. It explores the history and development of criminal evidence law and the necessity of legally obtained evidence. Students will analyze constitutional procedures for arrest, search and seizure by examining court decisions and applying them to scenarios presented in class. The application of law enforcement agency policy is also addressed. Meets or exceeds LESB 520 performance objectives.

504-137 Introduction to Corrections **3 Credits**
This course will provide the students with the necessary fundamental knowledge of correctional philosophies as well as the structure of American correctional systems. Current issues in corrections will also be discussed.

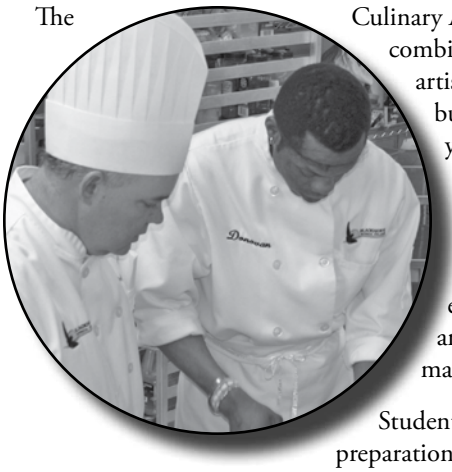
504-141 Report Writing **3 Credits**
This course is designed to supply the student with a working knowledge of the purposes and the acceptable principles of police report writing. Attention is given to the improvement of spelling, sentence structure, punctuation, vocabulary and the use of police jargon. Emphasis is placed on the police report narrative as a powerful investigative tool, and its position in the criminal justice system. Attention will also be given to completing various uniform law enforcement report forms. Meets or exceeds LESB 520 performance objectives.

504-142 Advanced Report Writing **3 Credits**
Advanced Report Writing is designed to enhance and build upon the student's writing skills developed in through Written Communications and Report Writing, both of which are prerequisites for this course. Practice and practical application in writing reports that are direct, grammatically correct, and contain the appropriate content for prosecutorial action will be the foundation of this course. Focus area includes narrative reports addressing the collection of evidence, statements, complaints, and the elements of crimes. ***Prerequisites: Successful completion of 801-195 Written Communication and 504-141 Report Writing with a grade of "C" or above.***

504-165 Community Policing Strategies **3 Credits**
This course helps students in the identification and characteristics of common mental and developmental disabilities. Students will demonstrate techniques of handling a crisis situation and persons in crisis. The course also explores community policing, problem solving and crime prevention strategies. Meets or exceeds LESB 520 performance objectives

504-170 Criminal Justice Internship **3 Credits**
This course involves professionally planned and supervised program of experience in one of several criminal justice related occupational areas. ***Prerequisites: Completion of 50% of Criminal Justice Program courses with a grade of C+ or above, no more than 5 absences in any CJ course, and the approval of the faculty internship coordinator based on student performance in the Criminal Justice program.***

504-176 Criminal Justice Module **3 Credits**
This course is for law enforcement certification track students only. During the fist two weeks of the summer session, between the students first and second year, law enforcement certification track students are required to take this course which consists of the LESB Vehicle Contacts unified tactic module as well as the required LESB First Responder instruction module. Meets or exceeds LESB 520 performance objectives.



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 skills.

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 Board of Vocational Technical and Adult Education with the Exemplary Educational Service Award. The Blackhawk Technical College Culinary Arts Program is accredited by the American Culinary Federation.

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

- Enforce health and safety standards.
- Demonstrate food prep skills.
- Apply principles of nutrition.
- Adapt restaurant procedures to meet changing needs.
- Manage food purchase, facility layout, storage, inventory and cost control.
- Recommend new or modify business/kitchen procedures.
- Supervise kitchen employees.
- Design menus.
- Adapt restaurant procedures to meet changing needs.
- Recommend new or modify business planning.

Potential Employment Opportunities
Kitchen Manager, Executive Sous Chef, Executive Chef, Restaurant Manager, Lead Cook, Kitchen Supervisor.

	Course Name	Credits	Lec-Lab
Semester 1			
804-117	Business Math	3	3 - 0
316-103	Food Service Industry & Menu Design	2	2 - 0
316-104	Orientation to Quantity Food Prep.	1	1 - 0
316-108	Food Science I	3	1 - 4
316-147	Food Service Sanitation	2	2 - 0
531-102	Safety Emergency Procedures for the Workplace	1	1 - 0
801-195	Written Communication	3	3 - 0
Semester 2			
103-106	Introduction to Microsoft Office	3	3 - 0
196-101	Principles of Supervision	3	3 - 0
316-109	Quantity Production of Soups, Sauces, Salads & Dressings	4	1 - 6
316-115	Nutrition	2	1 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
Semester 3			
316-114	Quantity Production of Entrees, Veg.[1]	4	1 - 6
316-119	Baking for Chefs	3	1 - 4
316-125	Beverage Management	1	1 - 0
316-166	Specialized Foods[2]	3	3 - 0
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
Semester 4			
102-139	Business Administration/Food Service Operation	3	3 - 0
316-159	Food Purchasing, Inventory & Cost Control	2	2 - 0
316-131	Management of Short Order Service	2	1 - 4
316-136	Catering/Special Events/Contract Food Service	2	2 - 0
316-142	Ice Sculpturing/Decorative Food Display	2	1 - 2
316-160	Gourmet Stocks/Sauces[2]	3	2 - 2
316-165	Gourmet Foods	3	1 - 2
TOTAL CREDITS		***67***	

[1]Electives

Course Descriptions

102-139 Business Administration in Food Service 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.

103-106 Introduction to Microsoft Office 3 Credits
This course is an introduction to the Microsoft Office Suite intended for students with little or no prior computer experience. An overview of many of the Core competencies of Microsoft Outlook, Word, Excel, Access, PowerPoint, Windows, and Explorer will be explored. Students will develop the use of technology for both problem solving and decision making and will be expected to learn to use the resources available to them to search for answers to problems using the technology available. Students will need additional lab time to complete assignments outside of class.

196-101 Principles of Supervision **3 Credits**
This course as designed to give the student an overview of such supervisory skills as leadership and interpersonal skills, motivation communications, decision-making and training at the first-line supervision level. The duties and responsibilities of supervisors, the rule of supervisors, the role of supervision in an organization and making the transition to supervision are also included.

316-103 Food Service Industry & 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 Orientation to Quantity Food Prep. **1 Credit**
Study of standardized recipes, equivalents, abbreviations, weights and measures, food presentations, and appropriate substitutions. The technical aspects of extending and reducing recipes and menu costing will also be a component.

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, Sauces, Salads & 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. ***Prerequisite: 316-104, 316-147, 316-108 or instructor approval.***

316-114 Quantity Production of Entrees, Vegetables **4 Credits**
This course includes a study of 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 competence in production of entrees, sauces, and vegetables to meet industry standards. ***Prerequisites: 316-104, 316-147.***

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. Studying the importance of nutritive elements and the affect 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. ***Prerequisite: 316-108, 316-147 or, instructor approval.***

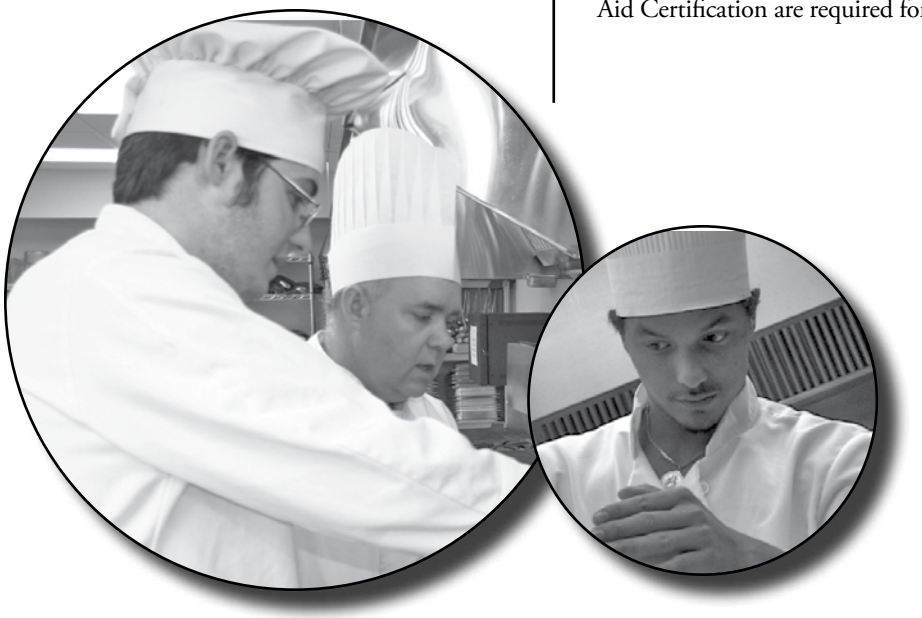
316-125 Beverage Management **2 Credits**
Beverage Management includes history, geography, and marketing as well as responsible beverage service, cost control, and the study of bar set-up and management. A review of equipment use and care, current products available, production standards, and merchandising principles is also included.

316-131 Management of Short Order Service **2 Credits**
A study of franchising, specialty breakfast and lunch items, sandwich preparation, marketing of food and increasing sales. ***Prerequisites: 316-114.***

316-136 Catering/Special Events/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. ***Prerequisites: 316-147, 316-104, 316-114.***

316-142 Ice Sculpturing/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. ***Prerequisite: 316-114.***

316-147 Food Service Sanitation **2 Credits**
A complete study of food sanitation, safe food handling practices, practice of high standards of personal health and hygiene, rules of safety in working with equipment, fire safety practices, sanitation regulations and enforcement licensing and enforcement regulations, and management of hazardous substances. Serv-safe, Cardio Pulmonary Resuscitation and First Aid Certification are required for completion of the course.



316-159 Food Purchasing, Inventory & 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 purveyors, 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 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.

316-165 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. ***Prerequisite: 316-114 or instructor approval.***

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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-117	Business Math	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

Food Service Aide Certificate

The Food Service Aide program is designed to prepare kitchen helpers for supervised entry-level positions in restaurants and institutional food service.

The student develops competencies in the following self-paced units of study: salad helper, short order cookery, bakery helper, ware handler, table service, sidework and busing.

The program emphasizes principles of sanitation and safety, communication and teamwork, and interpersonal relationships and job-seeking skills.

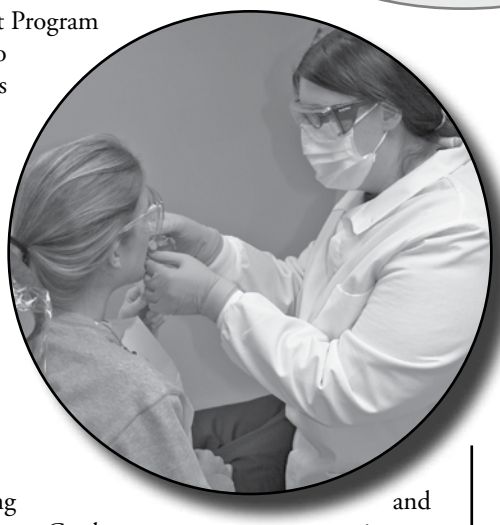
An off-campus internship experience may be included to develop skills appropriate to the employment objective of the student. Students are awarded competency certificates each semester specific to the skill area of achievement.

Course #	Course Title	Credits
303-330	Food Production I	4
303-332	Food Production II	4

Food Service Aide Classes Descriptions

303-330 Food Production I **4 Credits**
Orientation and application of entry-level skills in food preparation and service. Communication skills, sanitation and safety practices, and the development of interpersonal relationships are emphasized in the classroom experience, prior to lab work. Modules are self-paced and provide the student with experience in quantity food preparation of soups, salads, and sandwiches, as well as dishroom/busing and table service.

303-332 Food Production II **4 Credits**
A continuation of the lab training in 303-330 providing the student with the opportunity to expand skills in salad preparation, short-order cookery, bakery helper, ware handler, table service, and busing. An off-campus experience may be provided to develop individual student employment objectives. ***Prerequisite: 303-330***



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, United States Public Health Services, the Armed Forces, or a state, county or city health facility.

Following education as a dental assistant, some individuals may pursue additional education as a dental hygienist. Training as an assistant can be very useful in preparing individuals for this additional education.

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

- Collect diagnostic and treatment data
- Manage infection and hazard control
- Perform clinical supportive treatments
- Take diagnostic radiographs
- Perform dental laboratory procedures
- Provide patient oral health instruction
- Model professional behaviors, ethics, and appearance
- Carry out dental office procedures

Potential Employment Opportunities
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	Lec-Lab
Semester 1*			
508-101	Dental Health Safety	1	
508-302	Dental Chairside	6	
508-113	Dental Materials	2	
508-304	Dental and General Anatomy	1	
508-103	Dental Radiology	2	
508-306	Dental Assistant Clinical	3	
508-307	Dental Assistant Professionalism	1	
Semester 2*			
508-308	Dental Chairside – Advanced	5	
508-309	Dental Lab Procedures	4	
508-310	Dental Radiology – Advanced	1	
508-311	Dental Assistant Clinical – Advanced	2	
508-120	Dental Office Management	2	
801-390	Communication for Health Professions	2	
TOTAL CREDITS		***32***	

****The statewide curriculum for Dental Assisting is currently under revision.***

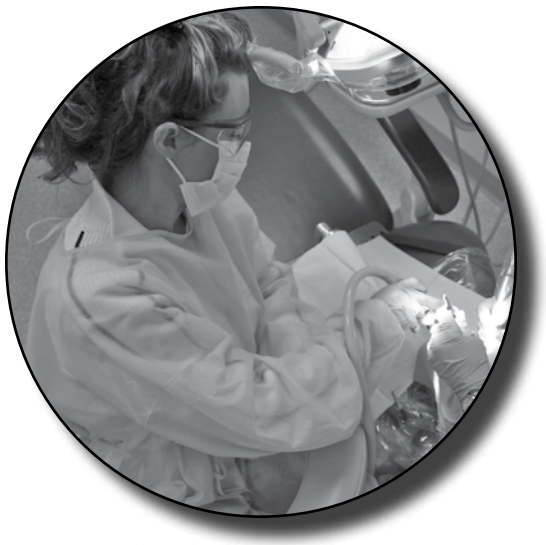
Course Descriptions

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. ***Prerequisites: Admission to the Dental Assisting Program and current CPR certification for the Health provider.***

508-302 Dental Chairside **6 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. ***Prerequisites: Admission to the Dental Assisting Program***

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. ***Prerequisites: Admission to the Dental Assisting Program***

508-304 Dental and General Anatomy **1 Credit**
Prepares dental assistant students to apply fundamentals of general and dental anatomy to informed decision-making and to professional communication with colleagues and patients. ***Prerequisites: Admission to the Dental Assisting Program***



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 x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient. ***Prerequisites: Admission to the Dental Assisting Program***

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. ***Prerequisites: Admission to the Dental Assisting Program***

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. ***Prerequisites: Admission to the Dental Assisting Program***

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. ***Prerequisites: 508-101, 508-302, 508-113, 508-304, 508-103, 508-306, 508-307***

508-309 Dental Lab 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. ***Prerequisites: 508-101, 508-302, 508-113, 508-304, 508-103, 508-306, 508-307***

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. ***Prerequisites: 508-101, 508-302, 508-113, 508-304, 508-103, 508-306, 508-307***

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. ***Prerequisites: 508-101, 508-302, 508-113, 508-304, 508-103, 508-306, 508-307***

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. ***Prerequisites: 508-101, 508-302, 508-113, 508-304, 508-103, 508-306, 508-307***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-390 Communication for Health Professions 2 Credits

This associate degree program prepares individuals for a career as a Dental Hygienist. The dental hygienist is a member of the dental team and helps individuals maintain oral health and prevent oral diseases. Under the supervision of a dentist, the hygienist inspects the mouth, removes stains and deposits from teeth, applies preventative agents, prepares clinical and diagnostic tests, completes dental x-rays, and performs many other services related to oral care. Dental hygienists counsel patients about preventive measures such as nutrition, oral hygiene and dental care.

After graduating from an accredited program, dental hygienist graduates are required to successfully complete comprehensive written and clinical examinations given under the direction of the State Dentistry Examining Board, the American Dental Association's Joint Commission.

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

- Ethics and Professionalism: Incorporate into dental hygiene practice professional laws, regulations and policies established by the licensing state and regulatory agencies
- Ethics and Professionalism: Model dental hygiene professional code of ethics in a rapidly changing environment
- Ethics and Professionalism: Pursue lifelong professional growth and development through self-directed learning, participation in professional organizations, and continuing education
- Promoting Oral Health: Counsel clients/patients to reduce health risks
- Promoting Oral Health: Provide community oral health services in a variety of settings
- Patient/Client Care: Infection Control - Manage infection and hazard control
- Patient/Client Care: Assessment - Assess data on all aspects of patient/client health using methods consistent with dental hygienist scope of practice and legal principles
- Patient/Client Care: Planning - Formulate a comprehensive dental hygiene care plan in collaboration with the client and other health professionals
- Patient/Client Care: Implementation - Provide preventive and therapeutic services that promote oral health according to the needs of the patient/client
- Patient/Client Care: Evaluation - Evaluate the effectiveness of the implemented client/patient dental hygiene care plan and modify as needed
- Patient/Client Care: Evaluation - Evaluate the effectiveness of the implemented clinical and educational services and modify as needed

Admission Requirements: To be placed on the program entry list.

Complete an application with appropriate processing fee.

High school graduate or G.E.D./H.S.E.D.

- Submit official transcripts demonstrating final grade of "C" or better in the following areas:
  - One year of high school chemistry or one semester of college chemistry
  - One year of high school biology with laboratory or one semester of college biology with laboratory
- Achieve the following test scores: COMPASS scores of: Writing-75, Reading-82, Numerical-49
- Attend an informational meeting at BTC, provided by the Dental Hygiene program

Admission Requirements:
To be admitted into program (508) courses

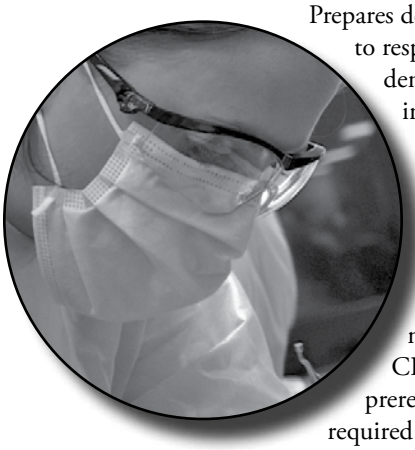
- Undergo a certified physical and dental examination
- Update and submit immunization record
- Current CPR certification (at Health Care Provider Level)
- Observe hygienist in dental office, 4 hours.
- Observe hygiene students at BTC clinic 4 hours.
- Complete criminal background information process
- Complete 806-177 General Anatomy & Physiology

	Course Name	Credits	Lec-Lab
Semester 1			
508-101	Dental Health Safety	1	0 - 2
508-102	Oral Anatomy, Embryology & Histology	4	2 - 4
508-103	Dental Radiography	2	1 - 3
508-105	Dental Hygiene Process I	3	1 - 6
508-106	Dental Hygiene Process II	3	1 - 9
508-107	Dental Hygiene Ethics & Professionalism3	1	1 - 0
508-108	Periodontology	3	2 - 2
508-109	Cariology	1	1 - 0
508-110	Nutrition and Dental Health	2	2 - 0
508-111	General and Oral Pathology	3	3 - 0
508-112	Dental Hygiene Process III	5	1 - 12
508-113	Dental Materials	2	1 - 2
508-114	Dental Pharmacology	2	2 - 0
508-115	Dental Community Health	2	2 - 0
508-116	Dental Pain Management	1	0 - 2
508-117	Dental Hygiene Process IV	4	0 - 12
Tech Support Courses			
806-177	General Anatomy and Physiology	4	3 - 2
806-186	Introduction to Biochemistry	3	2 - 2
806-197	Microbiology	4	3 - 2
General Education Courses			
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
809-195	Economics	3	3 - 0
TOTAL CREDITS		***72***	

A Caregiver Background Check WILL be required for clinical portion of the program.

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 beginning the course. This course is a WTCS aligned course required in both the Dental Hygienist and Dental Assisting programs. ***Prerequisites: Admission to the Dental Hygiene or Dental Assisting Program.***

508-102 Oral Anatomy, Embryology, & Histology 4 Credits
Prepares Dental Hygienist students to apply detailed knowledge about oral anatomy to planning, implementation, assessment, and evaluation of patient care. Students identify distinguishing characteristics of normal and abnormal dental, head, and neck anatomy and its relationship to tooth development, eruption, and health. ***Prerequisites: Admission to the Dental Hygiene Program, 806-177.***

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 x-ray hazards. Students also process, mount, and evaluate radiographs for diagnostic value. In this course students demonstrate competency on a manikin. In addition, students expose bitewing radiographs on a peer, role-play patient. Students gain further experience in exposing radiographs on patients in the clinical portion of their program. This course also provides the background in radiographic theory required for students to make informed decisions and adjustments. ***Prerequisites: Admission to the Dental Hygiene or Dental Assisting Program.***

508-105 Dental Hygiene Process I **3 Credits**
Introduces Dental Hygiene students to the basic technical/clinical skills required of practicing Dental Hygienists including use of basic dental equipment, examination of patients, and procedures within the dental unit. Under the direct supervision of an instructor, students integrate hands-on skills with entry-level critical thinking and problem-solving skills. The course also reinforces the application of Dental Health Safety skills. ***Prerequisites: Admission to the Dental Hygiene Program.***

508-106 Dental Hygiene Process II **4 Credits**
This clinical course builds on and expands the technical/clinical skills student dental hygienists began developing in Dental Hygiene Process I. Under the direct supervision of an instructor, students apply patient care assessment, planning, implementation, and evaluation skills to provide comprehensive care for calculus case type 1 and 2 patients and perio case type 0, I, and II patients. Dental Hygiene Process II introduces the application of fluoride and desensitizing agents, whole mouth assessments, comprehensive periodontal examinations, application of sealants, and patient classification. Students also begin performing removal of supragingival stain, dental plaque, calcified accretions, and deposits. In addition, they gain further experience in exposing radiographs on patients. The course also reinforces the application of Dental Health Safety skills. ***Prerequisites: 508-102, 508-103, 508-105.***

508-107 Dental Hygiene Ethics & Professionalism 1 Credit
Helps student dental hygienists develop and apply high professional and ethical standards. Students apply the laws that govern the practice of dental hygiene to their work with patients, other members of a dental team and the community. Emphasis is placed on maintaining confidentiality and obtaining informed consent. Students enhance their ability to present a professional appearance. ***Prerequisites: 508-102, 508-103, 508-105.***

508-108 Periodontology **3 Credits**
This course prepares student dental hygienists to assess the periodontal health of patients, plan prevention and treatment of periodontal disease, and to evaluate the effectiveness of periodontal treatment plans. Emphasis is placed on the recognition of the signs and causes of periodontal disease and on selection of treatments modalities that minimize risk and restore periodontal health. ***Prerequisites: 508-102, 508-103, 508-105***

508-109 Cariology **1 Credit**
This course focuses on the characteristics and contributing factors of dental decay. Dental Hygiene students help patients minimize caries risk by developing treatment plans, communicating methods to patients, and evaluating treatment results. ***Prerequisites: 508-102, 508-103, 508-105.***

508-110 Nutrition and Oral Health **2 Credits**
Prepares student dental hygienists to counsel patients about diet and its impact on oral health. Students learn to distinguish between balanced and unbalanced diets and to construct diets that meet the needs of patients with compromised dental/oral health. Students also learn to counsel patients about the effect of eating disorders on dental health. ***Prerequisites: 508-102, 508-103, 508-105.***

508-111 General and Oral Pathology **3 Credits**

This course prepares the student dental hygienist to determine when to consult, treat or refer clients with various disease, infection or physiological conditions. Students learn to recognize the signs, causes, and implications of common pathological conditions including inflammatory responses, immune disorders, genetic disorders, developmental disorders of tissues and cysts, oral tissue trauma, and neoplasm of the oral cavity.

This course prepares the Dental Hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs. They also participate in the development. ***Prerequisites: 508-106, 508-107, 508-108, 508-109, 508-110, 508-111.***

508-112 Dental Hygiene Process III **5 Credits**

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process II. In consultation with the instructor, students apply independent problem-solving skills in the course of providing comprehensive care for calculus case type 1, 2, and 3 patients and perio case type 0, I, II, and III patients.

Dental Hygiene Process III introduces root detoxification using hand and ultra-sonic instruments, manipulation of files, use of oral irrigators, selection of dental implant prophylaxis treatment options, and administration of chemotherapeutic agents. Students also adapt care plans in order to accommodate patients with special needs. ***Prerequisites: 508-106, 508-107, 508-108, 508-109, 508-110, 508-111.***

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. This course is aligned to serve students in the Dental Hygienist and Dental Assistant programs. ***Prerequisites: 508-101.***

508-114 Dental Pharmacology **2 Credits**

This course prepares student dental hygienists to select safe and effective patient premedication, local anesthetic, chemo therapeutic and anti-microbial agents within the scope of dental hygiene practice. Students will also learn to recognize potential pharmacological contradictions for specific patients and to take measure to avoid negative impact or alert other members of the dental team to possible negative impact. ***Prerequisites: 508-106, 508-107, 508-108, 508-109, 508-110, 508-111, 806-186, 806-197.***

508-115 Community Dental Health **2 Credits**

This course prepares the Dental Hygienist student to play a proactive role in improving the dental health of community members of all ages. Students perform and interpret dental health research to determine community dental health needs and development. ***Prerequisites: 508-106, 508-107, 508-108, 508-109, 508-110, 508-111.***

508-116 Dental Pain Management **1 Credit**

This course prepares the student dental hygienist to work within the scope of dental hygiene practice to manage pain for dental patients. Students learn to prevent and manage common emergencies related to administration of local anesthesia, prepare the armamentarium, and administer local anesthesia. The course also addresses the recommendation of alternative pain control measures. ***Prerequisites: 508-106, 508-107, 508-108, 508-109, 508-110, 508-111.***

508-117 Dental Hygiene Process IV **4 Credits**

This clinical course builds on and expands the technical/clinical skills student dental hygienists developed in Dental Hygiene Process III. With feedback from the instructor, students manage all aspects of cases in the course of providing comprehensive care for calculus case type 0, 1, 2, and 3 patients and for perio case type 0 I, II, and III patients. Emphasizes maximization of clinical efficiency and effectiveness. Prepares student dental hygienists to demonstrate their clinical skills in a formal examination situation. ***Prerequisites: 508-117, 508-105, 508-106, 508-112, 508-102, 508-103.***

DIESEL & HEAVY EQUIPMENT TECHNICIAN

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. They also service a variety of other diesel-powered equipment, such as electric generators and forklifts. 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–
Upon completion of this program, you will be able to:

- Practice shop and work safety habits.
- Locate and interpret repair specifications, processes, and proper procedures.
- Remove and replace components.
- Operate tools and equipment.
- Service components or systems.
- Repair defective components or systems.
- Diagnose condition of components or systems.
- Complete tasks efficiently.

Graduates from this program 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

	Course Name	Credits	Lec-Lab
Semester 1			
070-341	Electrical Systems	4	4 - 3
070-343	Hydraulic Systems	3	2 - 3
070-345	Service Policy and Procedure	2	3 - 0
412-347	Inspection & Maintenance Procedures	4	4 - 3
801-311	Communication	2	3 - 0
804-304	Math Fundamentals	2	3 - 0
Semester 2			
070-318	Drive Train Service	4	3 - 4
070-321	Air Conditioning and Refrigeration	2	1 - 2
412-310	Brake Service	4	3 - 4
412-311	Steering and Suspension	2	1 - 2
809-352	Skills for Successful Employees	2	3 - 0
Semester 3			
070-308	Small Gas Engines	3	3 - 2
412-342	Electrical Systems Troubleshooting	4	4 - 3
412-344	Hydraulic Systems Troubleshooting	3	2 - 3
412-349	Equipment Welding	2	1 - 2
Semester 4			
412-304	Diesel Fuel Systems	4	4 - 3
412-350	Diesel Engine Overhaul*	8	5 - 10
TOTAL CREDITS		***55***	

*Course has prerequisite.

Course Descriptions

070-308 Small Gas Engines **3 Credits**
Theory and operation of small engines, fuel, ignition, governing and lubrication. Includes trouble-shooting and overhauling two- and four-cycle engines.

070-318 Drive Train Service **4 Credits**
This course introduces the student to standard hydrostatic and power transmissions and systems. Maintenance and repair of automatic and standard transmissions, drive shafts, UB joints, constant velocity joints, differential equalizers, and differential locks are emphasized.

070-321 Air Conditioning and Refrigeration 2 Credits
Fundamentals of air conditioning and refrigeration. Major emphasis is placed on servicing, filling and discharging, evacuating, troubleshooting, and repair of various refrigeration systems. Converting from R12 to R134 systems is covered.

070-341 Electrical Systems 4 Credits
Theory, operation, functions and design of electrical systems. Starting, charging, accessory circuits, electrical troubleshooting, schematics, and wiring diagrams are covered.

070-343 Hydraulic Systems 3 Credits
This course is designed to give the student a working knowledge of hydraulics and pneumatics. Test, service, adjust and repair hydraulic and pneumatics. Testing, servicing, adjusting and repairing hydraulic actuators and hydraulic systems of tractors, trucks and other implements are emphasized. Included are power steering systems, hydrostatic and power shift transmissions and systems appropriate to a wide range of implements.

070-345 Service Policy and Procedure 2 Credits
This course is designed to aid the student in an understanding of the employment opportunities within the industry, to recognize correct shop safety, and to identify, select and use shop tools and diagnostic equipment properly. Record keeping, use of service manuals, and management of shop inventory are covered.

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. Lab activities include the disassembly, inspection, and reassembly of fuel systems components. Some time is spent on pump and injector calibration, proper timing, tune-up procedure, and dynamometer testing of diesel engines. Troubleshooting is emphasized throughout the course.

412-310 Brake Service 4 Credits
This course covers air, hydraulic, and manual brake applications; including maintenance, servicing, repair, troubleshooting, and wheel bearing replacement and adjustment for farm equipment, light-duty, medium-duty, and heavy-duty truck applications.

412-311 Steering and Suspension 2 Credits
Study will include the maintenance and repair of the following areas: solid, leaf spring, coil spring, rubber, air and torsion bar suspension systems, manual and power steering, frames, ball joints, control arms and drag links. Caster and camber, toe-in, toe-out and alignment are also covered.

412-342 Electrical Systems Troubleshooting 4 Credits
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 Systems Troubleshooting 3 Credits
Troubleshooting hydraulic failures on trucks, farm implements, and other equipment.

412-347 Inspection and Maintenance Proced. 4 Credits
Inspection and maintenance of bearings, seals and clutches. Maintenance and inspection of engines, transmissions, and rear ends of trucks, farm equipment and other heavy-duty equipment.

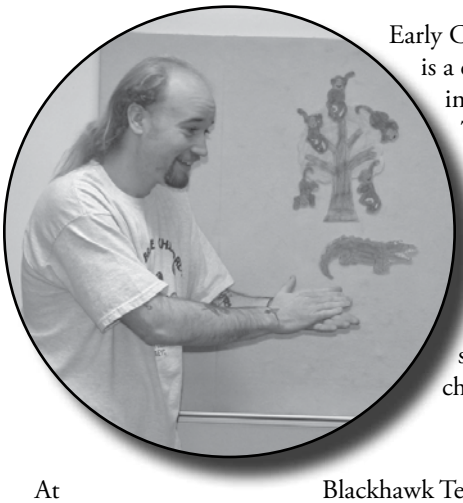
412-349 Equipment Welding 2 Credits
This course is designed to orient the student with the field of metals. The course provides students with basic experiences in the fields of welding and cutting. Topics covered include Shielded Metal Arc Welding (SMAW), Oxy-Fuel Cutting (OFC), and Gas Tungsten Arc 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. ***Prerequisite: 070-308 Small Gas Engines.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-311	Communication	2 Credits
804-304	Math Fundamentals	2 Credits
809-352	Skills for Successful Employees	2 Credits



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.

At Blackhawk Technical College, you will develop the skills needed to address the creative challenges you will face in working with young children:

- Relate child development theory to practice.
- Utilize criteria, procedures and documentation methods for observing and assessment.
- Implement developmentally appropriate curriculum.
- Demonstrate advocacy, professional and ethical standards.
- Provide a respectful, diverse and inclusive program.
- Integrate safe, healthy and nutritional practices within the Early Childhood setting according to local, state and national standards for quality care.
- Develop respectful relationship utilizing communication techniques with staff, families and communities.
- Incorporate developmentally appropriate guidance strategies.

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.

Career Outlook
As an early childhood professional, you will enjoy a growing field of opportunity that puts you in touch with the challenge and delight of a child's world.

A wide variety of employment choices awaits you:
Nannies, Nursery Schools, Day Care Centers, Head Start Classrooms, Infant Toddler Center, Before & After School Child Care Centers, Special Education and Chapter I Aide in Public Schools, Center Administration

Name	Course	Credits	Lec-Lab
Quarter 1			
+307-105	Child Health & Safety	3	3 - 0
+307-111	Child Growth & Development I	3	3 - 0
+801-196	Oral/Interpersonal Communication	3	3 - 0
+307-106	Professionalism	2	2 - 0
+307-108	Orientation	3	3 - 0
307-109	Early Childhood Pract. I (18 wks)	3	1 - 6
Quarter 2			
+307-101	Infant Toddler Caregiver	3	3 - 0
+307-107	Fundamentals of Childcare	3	3 - 0
+307-110	Creative Expression	3	2 - 2
+809-198	Introduction To Psychology	3	3 - 0
+307-114	Child Growth & Development II	3	3 - 0
Quarter 3			
+307-116	Building Partnerships	2	2 - 0
+801-195	Written Communication	3	3 - 0
+307-113	Creative Activities	3	2 - 2
307-115	Early Childhood Practicum II	3	1 - 6
+307-118	Child Guidance	3	3 - 0
Quarter 4			
+307-122	Diversity in Early Childhood	2	2 - 0
+307-123	Administration of E.C. Programs	3	3 - 0
+801-196	Introduction To Sociology	3	3 - 0
307-119	Early Childhood Practicum III	3	1 - 6
+307-117	Children w/ Special Needs	3	3 - 0
Quarter 5 (Summer)			
804-106	Introduction to College Mathematics	3	3 - 0
809-195	Economics	3	3 - 0
	Elective	3	3 - 0
	Elective	3	3 - 0
TOTAL CREDITS		***72***	

- Program can be successfully completed in 1-1/2 to 2 or 3 years.
- \+ Class taught in accelerated learning (8 weeks). Contact program Lead Instructor or Counselor for information on credit given for work experience and previous class work.
- A minimum grade of C- or better is required in all program classes for Placement in Practicum Centers. **It is STRONGLY recommended that students attend a Student Orientation before registering**

Physical information needs to be completed before the start of school. Practicum students must meet DHFS requirements for information disclosure records and background record checks.

New statewide curriculum will be starting fall of 2006.

Course Descriptions

307-101 Infant/Toddlers & Caregivers 3 Credits/54 hrs.
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 Child Health & Safety 3 Credits/54 hrs.
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 Professionalism 2 Credits/36 hrs.
Professionalism and advocacy in early childhood education are stressed. Development of a portfolio is required.

307-107 Fundamentals of Child Care 3 Credits/54 hrs.
Topics in this course include group day care regulations, NAEYC accreditation, routines, environments, diversity, and selection of toys and equipment.

307-108 Orientation 3 Credits/54 hrs.
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/126 hrs.
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. ***Prerequisite: 307-108, 307-107, 307-105, 307-106 or concurrent Capstone Course.***

307-110 Creative Expression 3 Credits/72 hrs.
This course is structured for analysis and evaluation of a wide variety of play, art, music, creative materials and activities, and the contribution 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/54 hrs.
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/72 hrs.
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/54 hrs.
Physical, social, emotional, and cognitive development of children from 2.5 to 8 is studied. ***Con-current 307-111 or work experience in Early Childhood Education.***

307-115 Early Childhood Practicum II 3 Credits/126 hrs.
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. ***Prerequisite: 307-109. To be taken the semester of graduation Capstone course.***

307-116 Building Partnerships in Early Childhood Education 2 Credits/36 hrs.
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 Children With Special Needs 3 Credits/54 hrs.
This course consists of an overview of the characteristics and educational needs of children with special needs: cognitive, physical, speech, hearing, and visual impairments; learning disabilities, emotionally disturbed and gifted and talented. Supporting families with children who have special needs is emphasized.

307-118 Child Guidance 3 Credits/54 hrs.
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/126 hrs.
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. ***Prerequisite: 307-115. To be taken the semester of graduation Capstone course.***

307-122 Diversity in Early Childhood 2 Credits/54 hrs.
Learn how to create an anti-bias free curriculum, and environment for early childhood classrooms.

307-123 Administration of Early Childhood Programs 3 Credits/54 hrs.
This course will focus on the responsibilities of a Program Director/Administrator of an Early Childhood Center. ***Prerequisite: 307-119 or work experience in Early Childhood Education.***

804-106 Introduction to College Mathematics 3 Credits/54 hrs.
This course is designed to review and develop fundamental concepts of arithmetic, algebra, geometry and statistics.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-106	Introduction to College Math	3 Credits
809-195	Economics	3 Credits
809-196	Intro to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

ELECTRIC POWER DISTRIBUTION

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

- 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 from this program have found employment as:

- Electric Utility Lineman
- Telephone Repairman
- Cable TV Installer

Career Outlook:

Technological advances will result in divergent trends within this occupation. Job prospects will be best for electrical line workers employed by electric utilities and construction firms because the impact of technology is expected to be less than for telephone line workers.

	Course Name	Credits	Lec-Lab
Semester 1			
413-301	Electric Power Distribution I	10	5 - 15
413-303	Ind. Electricity for Line Technicians[1]	2	1 - 2
413-304	Safety Procedures I-Line Technicians	1	1 - 1
804-304	Math Fundamentals	2	3 - 0
Semester 2			
413-302	Electric Power Distribution II[1]	10	5 - 15
413-305	Safety Procedures II-Line Technicians	1	1 - 1
801-311	Communication	2	3 - 0
806-315	Applied Science	2	3 - 0
TOTAL CREDITS		***30***	

[1]Course has prerequisites

Course Descriptions

413-301 Electric Power Distribution I 10 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.

413-302 Electric Power Distribution II 10 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. ***Prerequisite: 413-301, Electric Power Distribution I.***

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. ***Prerequisite: Enrolled in 413-301, Electric Power Distribution I.***

413-304 Safety Procedures 1 – Line Technician 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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

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

Electromechanical Technicians fabricate, install, assemble, test, analyze, adjust, repair, and maintain various machinery and devices that are electronic and mechanical in nature. Students learn the essentials of electronics, fluid power, motors, robots and mechanical devices. They develop skill and knowledge in operating specialized electronic and mechanical test instruments.

This program emphasizes the programming and operation of automated robotic equipment used in an industrial environment. A robot is a computer-driven machine that does repetitive tasks. The Electromechanical graduate builds, installs, updates, and services various mechanical and electronic controlled equipment. Some of the equipment includes: industrial automation, computer integrated machining, metal and plastic forming, assembly systems, and food processing. Among the many automated systems, which include robots, the technician's involvement may be within any stage or segment of the development process. They apply the skills of debugging and troubleshooting a system from its initial design to its final installation. Also, training operators, servicing any subsequent breakdown, and making additional improvement are part of the job description.

The Electromechanical program, an "in demand" field of study, offers graduates entry skills needed to succeed in high–energy fields of employment. This discipline of study has a shortage of qualified applicants, so many employment opportunities exist.

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

- Integrate safety protocol
- Locate & 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 system or component
- Modify systems or components
- Complete and maintain appropriate documentation for system and processes

Graduates from this program have found employment as:

- Electromechanical Technician
- Field Service Engineer
- Automation Technician
- Robotics Technician
- Electromechanical Maintenance Technician
- Electronic Assembly Tester
- Instrument Mechanic
- Electrical Equipment Repairer
- Fluid Power Technician

Career Outlook:
Rapid growth and high demand for qualified persons are anticipated. More business and industrial firms are expanding, updating, and installing complex computerized systems and electronic control devices. The increase in these systems has and will continue to demand more trained technical service people.

	Course Name	Credits	Lec-Lab
Semester 1			
605-102	Fundamentals of DC Circuits	3	2 - 3
605-104	Fundamentals of AC Circuit[s1]	3	2 - 3
605-135	Technical Documentation & Processes[1]	2	1 - 3
801-195	Written Communication	3	3 - 0
804-115	College Technical Mathematics 1	5	5 - 0
809-198	Introduction to Psychology	3	3 - 0
Semester 2			
605-116	Ind. Solid State Devices & Circuits[1]	3	2 - 3
605-120	Power Supplies & Power Circuits[1]	3	2 - 3
605-125	Logic & Digital Circuits[1]	3	2 - 3
605-130	Microprocessor Programming[1]	2	1 - 3
804-116	College Technical Mathematics 2	4	4 - 0
806-151	Technical Science I	3	2 - 2
Semester 3			
605-140	Motors & Servo-Mechanisms[1]	3	2 - 3
620-100	Hydraulics & Pneumatics	3	1 - 6
620-160	Robotic Systems[1]	3	2 - 3
806-152	Technical Science II	3	2 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective[2]	3	varies
Semester 4			
620-110	Microprocessor & Programmable Controllers[1]	4	3 - 3
620-162	Applied Robotics[1]	4	1 - 9
801-197	Technical Reporting	3	3 - 0
809-195	Economics	3	3 - 0
	Elective[2]	3	varies
TOTAL CREDITS		***72***	

[1]Course has prerequisites
[2]Electives may be selected from any associate degree program with the approval of student program advisor

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.

605-104 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. ***Prerequisite: 605-102 - Fundamentals of DC Circuits.***

605-116 Industrial Solid State Devices & Circuits 3 Credits
This course is designed to provide the students with the basic understanding of the principles and concepts of solid-state devices including diodes, SCR's, diac's, triac's, transistors, FET's and integrated circuits. Characteristics and application of each device will be verified through laboratory experiments. ***Prerequisite: 605-120 – Power Supplies & Power Circuits.***

605-120 Power Supplies & Power Circuits 3 Credits
This course is an essential study of the various types of power supplies found in electronic equipment. Both regulated and unregulated designs are covered, including analog and switching types. This course will give the student an insight into the design of power supplies and their components, with special emphasis on op-amps and other integrated circuits. ***Prerequisite: 605-104 –Fundamentals of AC Circuits.***

605-125 Logic & Digital Circuits 3 Credits
A course designed to provide the student with the basic understanding of the principles and concepts involving solid-state logic and digital circuits. Concepts to be studied shall include waveforms, digital math, multivibrators, logic gates, registers and counters, multiplexers and demultiplexers, as represented in all logic families. Verification of the theory is accomplished through laboratory experiments. Emphasis will be placed on troubleshooting techniques used in servicing digital circuits. ***Prerequisite: 605-104 - Fundamentals of AC Circuits.***

605-130 Microprocessor Programming 2 Credits
This course provides an introductory study in programming microprocessors, where the student will be introduced to a high level language. Basic programming will be studied and used to control devices with a special emphasis on electronic and industrial applications. The course includes hands-on laboratory sessions. ***Prerequisite: 605-104 - Fundamentals of AC Circuits.***

605-135 Technical Documentation & Processes 2 Credits
Learn to read and interpret schematics used in the electronics industry. The course will include elements of machine, electrical and electronics drawings and their respective schematic symbols. The course also will include the fundamentals of computer operations. Basic electronic fabrication techniques will also be covered. ***Prerequisite: 605-102 - Fundamentals of DC Circuits or concurrent with 605-102.***

605-140 Motors & Servomechanisms 3 Credits
This is a course that covers the principles and components of control applications of AC-DC motors and servomechanisms. Topics covered include: industrial application of motors and controls, open and closed servo systems and the use of electrical and electronic diagrams for thorough understanding of control systems. The application of servomechanisms for automated control in various systems is made in laboratory experiments as well as studying the principles through theory and operation of servo-synchronous devices. Experiments are conducted on hydraulic servo controls systems: DC motors, AC motors, stepper motors, and other controls. ***Prerequisite: 605-116 - Industrial Solid State Devices & Circuits.***

620-100 Hydraulics & Pneumatics 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.

620-110 Microprocessor & Programmable Controllers 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. ***Prerequisite: 605-125 - Logic & Digital Circuits, or consent of instructor.***

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. ***Prerequisite: 605-130 - Microprocessor Programming, and 620-100 - Hydraulics & Pneumatics, or concurrent enrollment.***

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. ***Prerequisite: 620-160 - Robotic Systems.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-197	Technical Reporting	3 Credits
804-115	College Technical Mathematics 1	5 Credits
804-116	College Technical Mathematics 2	4 Credits
806-151	Technical Science I	3 Credits
806-152	Technical Science II	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

The EMT typically represents one of the first components of the emergency medical system. This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context. The National Registry of EMT's test is required at the completion of the course for licensure in the State of Wisconsin. The course is also a prerequisite for EMT-IV Tech and EMT-Paramedic training. EMT-Basic is 4 credits at 8 hours per week totalling 144 hours plus 10+ hours in a hospital emergency room setting and ambulance ride-along training.

EMT Basic Practical/Knowledge Base Outcomes
A minimum of an 80% is required on all exams to be eligible to attend the National Registry of EMT practical and written exams needed for Wisconsin EMT licensing.

- Airway Management
- Medical Emergency recognition and management
- Trauma Emergency recognition and management
- Basic Pharmacology
- Prehospital Childbirth
- EMS Operations

Student Outcomes & Standards–IV Technician
Minimum of 80% is required on all exams to be eligible to take the State of WI EMT-IV Technician Exam for licensing. Students will gain knowledge in the following areas:

- Cell physiology
- Venous access/IV skills
- Diabetic emergency management including using IV Dextrose and Glucagon injection
- Critical Thinking
- Shock Management
- Pharmacology
- Cardiac anatomy and emergency intervention using nitroglycerin and aspirin
- Narcotic drug overdose management using Narcan

A Caregiver Background Check WILL be required for clinical portion of the program. Students must meet the immunization requirements set by the CDC.

	Course Name	Credits	Lec-Lab
Semester 1			
531-301	EMT-Basic	4	4 - 4
Other EMS Courses			
531-411	Pediatric CPR		8
531-412	First Responder-Refresher		18
531-415	Emergency Vehicle Operations-Ambulance*		8
531-420	EMT-Basic Refresher		30
531-431	Heartsaver Plus–CPR		8
531-434	Healthcare Provider-CPR		8
531-436	CPR-Refresher		4
531-440	First Responder		52
531-455	Heartsaver AED (Adult only)		4
531-423	EMT IV Tech Refresher		12

Also—Continuing Education for the EMT and Special Seminars.

Course Descriptions

531-102 Safety Emergency Procedures for the Workplace **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. People taking this course are primarily associated with Health Care, Culinary Arts, or other BTC programs.

531-301 EMT-Basic **4 Credits**

This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context. The National Registry of EMT's test is required at the completion of the course for licensure in the State of Wisconsin. The course is also a prerequisite for EMT-IV Tech and EMT-Paramedic training. EMT-Basic is 4 credits at 8 hours per week totalling 144 hours plus 10+ hours in a hospital emergency room setting and ambulance ride-along training.

531-411 Pediatric CPR **8 Hours**
The course consists of airway obstruction and CPR for infants and children under 8-10 years old, based on the newest American Heart Association techniques. Target audiences—daycare centers (OSHA approved).

531-412 First Responder Refresher **18 Hours**
Biennial refresher course for certificate renewal. First Responder skills are emphasized along with new protocols for the two-year period.

531-415 Emergency Vehicle Operations–Ambulance* **8 Hours**
This course is for EMTs and drivers of ambulances consisting of classroom work, on-road and track emergency driving maneuvers.

531-420 EMT-Basic Refresher **30 Hours**
Biennial State of Wisconsin mandated refresher course for licensure renewal. Basic skills are emphasized along with new protocols for the two-year period.

531-423 EMT I.V. Tech Refresher **12 Hours**
Biennial refresher course required for license renewal for E.M.T.'s with I.V. Tech Skills.

531-431 Heartsaver Plus–CPR **8 Hours**
For the general public. The course consists of airway obstruction and CPR for infants, children, and adults based on the newest American Heart Association techniques *(OSHA approved)*

531-434 Healthcare Provider–CPR **8 Hours**
For any medical staff personnel, medical type students, EMTs, 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).*

531-436 CPR-Refresher **4 Hours**
Biennial update for those already certified in CPR.

531-440 First Responder **52 Hours**
Advanced first aid and other medical procedures below the EMT levels. Previously for law enforcement officers, firefighters, and those who initially respond first to an emergency scene.

531-455 Heartsavers AED **4 Hours**
This course consists of automatic electronic defibrillation during heart attacks. The course is for the general public who have access to an AED.

531-303 EMT-IV Technician **90 Hours**
The EMT-IV Technician course will take you to the next level of training after EMT-Basic. Students will learn clinical decision making skills, basic pharmacology, intravenous therapy, and management of cardiovascular, diabetic, drug overdose, and shock cases. Students will complete 36 hours of skill competencies in a clinical setting. EMT-IV Technician is 4 hours each week in totaling 54 hours in addition to 36 hours of hospital clinical experience. A current Wisconsin EMT license is a pre-requisite for this 2-credit course. Successful completion of a Wisconsin State exam is required to obtain a WI EMT-IV Technician license.

531-406 Heartsaver First Aid **7 Hours**
A First Aid and Adult CPR course for the general public. this course is divided into several modules to fit the needs of both business settings and the general population. It is based on the American Heart Association standards.

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.

Instruction is planned over a five to six year period and conducted on a two-fold basis:

- A minimum of 36 hours of group instruction (lecture, classroom discussion, demonstrations, field trips, and small group instruction).
- A minimum of 12 hours of individual instruction. This instruction is prescheduled on a monthly basis. Normally the site is on the farm, but may be at a location and time agreed to by both the student and instructor.

Program Outcomes–
Upon successful completion of this program, you will be able to:

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

Career Outlook:

Outlook is affected each year by the cost and availability of money, government support programs, import quotas, and local and international markets. Rising costs and changes in farm prices also affect business stability. Profits vary greatly, depending on weather, prices, operating costs, and interest rates.

The structure of the farm industry is changing as markets evolve and average farm size increases. These trends may limit traditional operations, but emerging value added and other creative production and marketing approaches will continue to provide new opportunities for those willing to meet the challenge.

	Course Name	Credits	Lec-Lab
Semester 1			
090-381	Operating the Farm Business	3	varies
090-382	Soils Management	3	varies
090-383	Crop Management	3	varies
090-384	Livestock Nutrition	3	varies
090-385	Livestock Management	3	varies
090-386	Farm Records & Business Management	3	varies
TOTAL CREDITS		***18***	

To graduate, a student must successfully complete the six course areas listed for 18 credits.

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 & 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.

The Fire Science program offers the student an exciting career in fire protection, fire prevention and fire engineering. The field of 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 rare blend of technical skills, management concepts and abilities as a communicator of fire prevention information.

Another area of employment opportunity exists in the field of sales with companies which manufacture fire protection equipment and related supplies.

Expanding industrialization and population 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 and industry.

Program Outcomes–
Upon completion of this program, you must be able to:

- Conduct fire investigations
- Perform basic fire inspections
- Perform first line fire service supervision
- Command basic fire ground operations
- Write fire and prefire plans
- Conduct basic fire company training
- Maintain records for apparatus and equipment
- Perform building plan and survey inspections

Fire Service Certification Training

This series is for all active firefighters 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.

Potential Employment Opportunities

Fire Fighter, Fire Protection Technician, Fire Fighting Equipment Specialist/Sales, Fire Inspector, Fire Fighter - Crash, Military, Government, State or Federal.

	Course Name	Credits	Lec-Lab
Technical Core Courses			
503-108	Building Construction & Fire Ordinances	4	4 - 0
503-109	Chemistry of Hazardous Materials	3	3 - 0
503-113	Supervisory Techniques for Fire Service	3	3 - 0
503-115	Handling Hazardous Materials	3	3 - 0
503-117	Fire Prevention/Systems	4	4 - 0
503-122	Fire Service Hydraulics	3	3 - 0
503-126	Fire Department Administration	3	3 - 0
503-135	Fire/Arson Investigation	3	3 - 0
503-148	Tactical Problems & Disaster Planning	3	3 - 0
503-150	Personnel Management for Fire Service	3	3 - 0
General Education Courses			
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
804-106	Introduction to College Math	3	3 - 0
806-134	General Chemistry	4	2 - 2
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
Technical Support Courses			
103-106	Introduction to MS Office	3	3 - 0
503-144	Directed Independent Research	3	3 - 0
Suggested Electives (Minimum of 6 credits required)			
503-118	Fire Suppression	3	3 - 0
503-146	Directed Independent Research II	2	2 - 0
504-118	Procedures of Interviewing	3	3 - 0
504-136	Rules of Evidence	3	3 - 0
531-301	EMT-Basic	4	4 - 4
531-303	EMT-IV Technician	2	
TOTAL CREDITS		***62***	

Course Descriptions

503-108 Building Construction & 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 Chemistry of 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.

503-113 Supervisory Techniques-Fire Science **3 Credits**
This course is designed to give the student an overview 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**
Fire fighting 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 is studied.

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.

503-135 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.

503-144 Directed Independent Research I **3 Credits**
This course is designed to allow a student to research and dissect a problem area in Fire Science.

503-148 Tactical Problems & Disaster Planning **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 Management 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.

503-146 Directed Independent Research II **2 Credits**
This course is designed to allow a student to research and dissect a second problem area in Fire Science.

504-118 Procedures in Interviewing **3 Credits**
This course emphasizes the general and specialized skills in human communication. The student will be introduced to the various techniques and fundamentals in interviewing and interrogation as well as nonverbal communication skills as they relate to law enforcement.

504-136 Rules of Evidence **3 Credits**
This course presents a comprehensive study of the nature, kinds and degrees of evidence. The vital importance of "why" and "how" evidence is handled by the law enforcement officer for proper presentation and admission into the trial, in accordance with historical and judicial rules governing the admissibility of evidence in court, is emphasized.

531-301 EMT-Basic **4 Credits**
This course prepares individuals to care for patients at accident scenes and transport by ambulance to the hospital under medical direction. The course emphasizes emergency skills such as managing respiratory and cardiac emergencies, medical emergencies, trauma emergencies and patient assessment, and teaches these skills in a job-related context. The National Registry of EMT's test is required at the completion of the course for licensure in the State of Wisconsin. The course is also a prerequisite for EMT-Intermediate and EMT-Paramedic training. EMT-Basic is 4 credits at 8 hours per week totalling 144 hours plus 10+ hours in a hospital emergency room setting and ambulance ride-along training.

Fire Science Certificate

Firefighter I *(96 Hours)*	3 Credits
Firefighter II *(42 Hours)*	1 Credit
Fire Officer I *(60 Hours)*	1.5 Credits
Fire Officer II *(45 Hours)*	1 Credit
Driver/Operator Pumping *(66 Hours)*	1.5 Credits
Driver/Operator Aerial *(36 Hours)*	1 Credit
Fire Instructor I *(40 Hours)*	1 Credit

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-105	General Math	3 Credits
806-121	Basic Chemistry	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

HEALTH UNIT COORDINATOR

The Health Unit Coordinator Program prepares the student for employment in a variety of health care settings. The program prepares the student to professionally coordinate health unit operations, transcribe medical orders, communicate effectively in a health care environment and maintain client information. The program includes theory, simulated activities, and experience in a healthcare setting.

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

- Communicate professionally in the health care environment
- Coordinate health unit operations
- Integrate the role of the Health Unit Coordinator in the health care system
- Manage client information
- Transcribe medical records

Potential Employment Opportunities

- Health Unit Coordinator
- Unit Clerk
- Health Unit Secretary
- Nursing Secretary
- Unit Clerk Coordinator
- Medical Receptionist
- Communication Systems Coordinator
- Patient Account Representative
- Clinics Surgery Coordinator
- Admissions/Billing Assistant

The graduate is eligible to write the National Health Unit Coordinator Certification Examination. This is a Voluntary certification. For more information: www.nahuc.org

	Course Name	Credits	Lec-Lab
Curriculum			
510-301	Health Unit Coordinator Procedures I	3	6 - 0
510-302	Health Unit Coordinator Procedures II	3	6 - 0
510-303	Health Unit Coordinator Clinical	3	0 - 9
501-107	Introduction to Computing for Healthcare	2	2 - 0
501-104	Principles of Customer Service in Healthcare	2	2 - 0
501-101	Medical Terminology	3	3 - 0
TOTAL CREDITS		***16***	

A physical examination and criminal background check are required for enrollment in this program. A "C-" or better is required in all course work for successful program completion.

Course Descriptions

510-301 Health Unit Coordinator Procedures I 3 Credits
Health Unit Coordinator Procedures I is an introductory course to the HUC profession The course will introduce the student to the environment, communication, and managing client information in healthcare. ***Prerequisites: Admission to HUC Program, Completion of or concurrent enrollment in: Medical Terminology, Principles of Customer Service in Health Care & Introduction to Computing for Health Care.***

510-302 Health Unit Coordinator Procedures II 3 Credits
Health Unit Coordinator Procedures II is a more advanced course that introduces the student to the order process, transcription of medication and infusion orders, laboratory and diagnostic orders, interdisciplinary treatment orders, and specialty unit orders. ***Prerequisites: Completion of Health Unit Coordinator Procedures I.***

510-303 Health Unit Coordinator Clinical 3 Credits
This course provides opportunities for learners to apply the concepts and skills of a Health Unit Coordinator in a clinical setting. ***Prerequisites: Completion of: Health Unit Coordinator Procedures I. Completion of or concurrent enrollment in: Health Unit Coordinator Procedures II, Medical Terminology, Principles of Customer Service in Health Care, Introduction to Computing for Health Care.***

501-104 Principles of Customer Service in Health Care 2 Credits
This course is designed as an introduction to customer service for learners interested in working in various health care settings. The learner investigates health care systems and the health care workforce. The learner examines professionalism, interpersonal and written communication skills, and confidentiality as they relate to customer service.

501-107 Introduction to Computing for Health Care 2 Credits
This course introduces basic computer concepts needed to work in the healthcare industry. Laboratory sessions enable students to gain confidence using computers in healthcare settings. ***Prerequisites: Admission to Health Occupations program.***

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 systemic and surgical terminology.

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, along with an occupational mentor, designs an occupational degree program into a unique Associate degree.

Two objectives of the Individualized Technical Studies Associate Degree are the following:

- Provide flexibility in programming to meet the educational needs of individuals based on their particular career goals
- Emphasize the individual's career goals that cannot be achieved through enrollment in any single instructional program currently available at BTC
- BTC maintains an Individualized Technical Studies Degree Committee. This committee will be responsible for reviewing each student's application and career plan in order to grant admission into the program.
- Admission requires each student to participate in advising and planning sessions, which include the following:
- Assignment of a program advisor before acceptance into the program
- Development of a plan outlining his or her career objectives
- Identification of an occupational mentor who is familiar with the skills and abilities needed in positions similar to that sought by the student
- Completion of an Individualized Technical Studies Degree portfolio, which is to be filed with the district's Individualized Technical Studies Degree Committee as part of the program admission process

General Education courses will be drawn from communications skills, Mathematics, Science, and behavioral and social sciences. Each student also will complete a minimum of 40 credit hours of individualized technical studies (including at least three credit hours of computer-related courses). Students may use courses from all departments at BTC. A minimum of 20 of these credits must be focused on one discipline. The selection of these courses must be relevant to the student's career goals and should provide sufficient hours of concentration in one or two specific technical areas to ensure technical competence in achieving his or her occupational goals.

In addition, each student must complete six credit hours of electives that are relevant to the student's career goals. A students may use their electives to take additional technical studies courses.

Program Requirements

General Education—18 credit hours

A minimum of three credits is required from each of the following four categories for the General Education core. The remaining six credits will be chosen from any of the remaining listed courses. However, students are encouraged to complete a minimum of six credits in communications.

Communications		
801-195	Written Communication	3
801-196	Oral/Interpersonal Communication	3
801-197	Technical Reporting *(Prerequisite: Written Communication)*	3
801-198	Speech	3
Social Science		
809-195	Economics	3
809-196	Introduction to Sociology	3
809-197	Contemporary American Society	3
Behavioral Science		
809-198	Introduction to Psychology	3
Mathematics/Science		3

Individualized Technical Studies Core	40-48 credit hours
Electives	6 credit hours
Total Program Credit Hours	64-72 credit hours

For further information or to obtain a personal planning guide, contact BTC counselor **Terese Wash** at the Central Campus **608•757•7706** or **Cindy Fuerstenberg** at the Monroe Campus **608•328•1660.**

The Industrial Engineering Technician 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 core 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 services. They are employed in a variety of businesses and industries, including the manufacture 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 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–
Upon completion of this program, you will be able to:

- 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 from this program 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

Career Outlook:

Well-qualified IE Technicians should experience good employment opportunities through the year 2005. Employment is expected to increase due to the expected continued growth in the output of technical products.

	Course Name	Credits	Lec-Lab
Tech Core Courses			
154-103	Basic Computer Concepts	3	3 - 0
196-191	Supervision	3	3 - 0
422-100	Metallurgy	3	3 - 0
606-101	Intro to Computer Aided Drafting[1]	3	2 - 2
623-121	Engineering Drawings & Measurements[1]	3	SP
623-155	SPC-Statistical Process Control	2	2 - 0
623-160	Mfg. Materials & Processes[3]	3	3 - 0
623-165	Facilities Planning	3	3 - 0
623-170	Industrial Organization & Structure	3	3 - 0
623-192	Process Planning[1]	3	3 - 0
623-196	Standards & Regulations	1	SP
625-101	Foundations of Quality[2] OR	3	3 - 0
623-166	Industry & Quality Control[2]	3	SP
625-102	Human Elements of Quality	3	3 - 0
Technical Support Courses			
804-115	College Technical Mathematics 1	5	5 - 0
806-151	Technical Science I	3	2 - 2
806-152	Technical Science II	3	2 - 2
General Education Courses			
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
	Electives[3]	6	Varies
TOTAL CREDITS		***65***	

[1]Course 623-121, or a demonstrated knowledge of drawings and dimensioning, is a prerequisite for courses 606-101 and 623-192

[2]Self-paced course 623-166, Industry & Quality Control is an acceptable substitute for 625-101 Foundations of Quality

[3]Electives may be selected from any associate degree program with the approval of the student's program advisor.

Evening core courses and technical support courses are offered on a rotational basis. General Education courses are offered more frequently. Students are therefore advised to take core and technical support courses whenever possible, to avoid delays in completing your degree. Several core courses are offered continuously in a self-paced format, and additional self-paced courses will be added in the future. Inquire for details and availability of these courses.

Course Descriptions

154-103 Basic Computer Concepts **3 Credits**
This course is designed as a first course in microcomputers, the main purpose being to provide the student with the ability to use a microcomputer and typical applications packages such as word processing, graphics, spread sheet and data base in an integrated environment. No prior knowledge of computers or applications is necessary or expected. A secondary purpose is to provide the foundation skills in computers necessary for subsequent courses that expand the students computer skills into other application areas or use the computer in career oriented courses. Other topics of the course include: basic computer concepts of hardware and software, introduction to graphics and elementary microcomputer operating systems.

196-191 Supervision **3 Credits**
Designed to help participants build the skills required to effectively direct the work of others within the structure of an organization. Emphasis is placed on the human behavioral aspect of supervision. Focus is on application of the managerial process to the daily job of a supervisor.

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.

606-101 Intro. to Computer Aided Drafting (CAD) 3 Credits
This is 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. ***Prerequisite: Course 623-121 (Engineering Drawings and Measurement), or equivalent knowledge with permission of the instructor. Students with prior CAD experience may apply for advanced status or test-out.***

623-121 Engineering Drawings & Measurements 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. ***Note: This course, or demonstrated equivalent knowledge, is a prerequisite for 606-101 (Introduction to CAD) and 623-192 (Process Planning). If you already have the skills covered in this course, you should apply for advanced standing. See the program advisor for details.***

623-155 SPC (Statistical Process Control) **2 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. ***Also available in self-paced format.***

623-160 Manufacturing Materials & Processes **3 Credits**
This class is a study of the characteristics and uses of various materials used in industry, including ferrous and non-ferrous metals, plastics, etc. The use of these materials is tied to various processes used to meet industries production requirements. Included will be basic concepts involved in metal machining, casting, forging, etc., as they relate to efficient production practices. ***Also available in self-paced format.***

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. ***Also available in self-paced format.***

623-166 Industry & 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. ***The content is similar to Course 625-101-Foundations of Quality may be substituted for 625-101.***

623-170 Industrial Organization & 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 & 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).

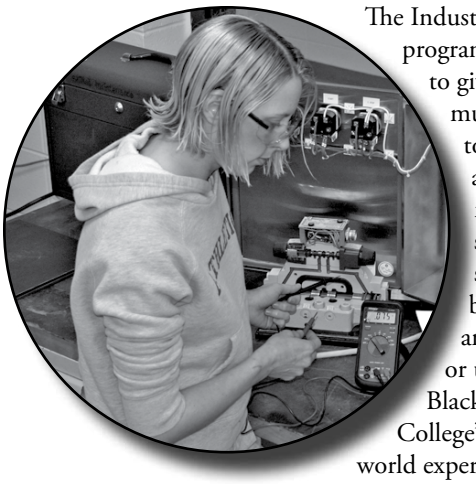
625-101 Foundations of Quality **3 Credits**
This course prepares participants to develop a philosophy of quality, incorporate a customer focus, contribute constructively in a team environment, and use a scientific approach to solve problems. Application of basic quality concepts is emphasized. ***Note: The self-paced course 623-166 Industry and Quality Control may be substituted for 625-101.***

625-102 Human Elements of Quality **3 Credits**
The focus of this course is the relationship between human habits and behaviors and continuous quality improvement. Personal, team, and organizational practices fostering cooperation and interdependence among co-workers are explored through class activities. Self-mastery, team development, and leadership for quality are among the specific themes.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-115	College Technical Mathematics 1	5 Credits
806-151	Technical Science I	3 Credits
806-152	Technical Science II	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits



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. Classes combine lecture and laboratory experience to provide the maximum amount of information and practical exposure. Safety policies and procedures will be taught and strictly adhered to.

This practical program provides extensive hands-on training. Graduates of the Industrial Mechanics program will have the knowledge, skills, and work habits necessary to maintain and troubleshoot today's complex equipment. In today's manufacturing environment more knowledge is needed to understand highly integrated manufacturing systems.

Upon successful completion of 462-335 (Refrigeration Fundamentals), students will be eligible to take the EPA Section 608 Refrigerant Handling Examination.

Manufacturers continue to automate in search of greater productivity and consistent quality. A typical manufacturing environment now consists of several machines integrated and dependent on each other. Individual machines are joined by a conveyance system all of which require knowledge of mechanical, electrical, and fluid power. In order to successfully maintain and troubleshoot modern systems, more knowledge and skills are required of individual maintenance workers.

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

- 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 from this program have found employment as:

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

Career Outlook:
Workers who advance to journeyman status, gain experience, and continue to upgrade their skills, typically enjoy the highest hourly wage rate at their facilities. Skilled maintenance is highly desirable because of competitive wages and a high level of job satisfaction.

	Course Name	Credits	Lec-Lab
Semester 1			
462-300	Electricity for Industrial Maintenance	3	2 - 3
462-305	Maintenance Welding	3	2 - 3
462-315	Industrial Maintenance Hydraulics	3	2 - 3
462-325	Machine Rigging	3	2 - 3
Summer			
462-320	Adv. Mfg. - Drives & Linkages	3	2 - 3
801-196	Oral/Interpersonal Communication	3	3 - 0
804-105	General Mathematics	3	3 - 0
Semester 2			
421-390	Blueprint Reading - Maintenance	3	2 - 3
462-310	CNC Machining for Ind. Maintenance	3	2 - 3
462-330	Motors and Controls	3	2 - 3
462-335	Refrigeration Fundamentals for Maint.	3	2 - 3
TOTAL CREDITS		***33***	

Course Descriptions

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. Significant lab time is spent interpreting actual blueprints.

462-300 Electricity for Industrial Maintenance 3 Credits
Electricity for Industrial Maintenance provides a study of theories, concepts, elements, and principles of electricity and DC Circuits. Topics covered will include atomic theory, electron flow, current, voltage and resistance. This course combines both lecture and laboratory work utilizing course material from multiple sources, delivered by various media methods. Students need no prior knowledge of electricity. Math is kept basic and minimal.

462-305 Maintenance Welding **2 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 CNC Machining for Industrial Maintenance **3 Credits**
This is an introductory course for those new to machine shop fundamentals, as well as CNC (Computer Numerical Control) machining. Students will have the opportunity to use and understand basic hand tools, and progress to the Bridgeport CNC Mill. Three machine families consisting of milling/drilling machines, lathes/turning machines and power sawing machines are studied and operated.

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 & 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 Credit**
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.

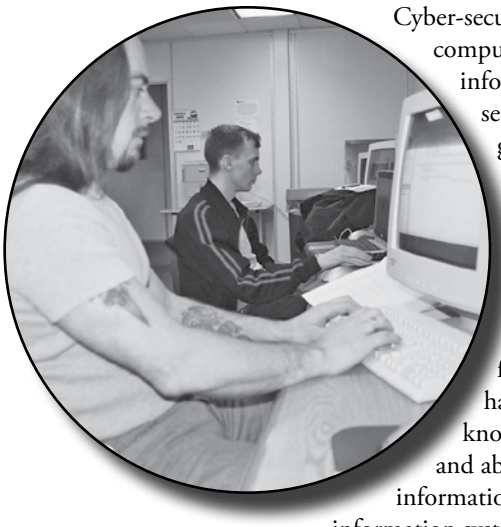
462-330 Motors and Controls **3 Credits**
This course concentrates on electric motors and their controls. Students will review and implement concepts of electron theory, magnetism, and ladder logic. Emphasis will focus on single and multiphase AC and DC motors. Students will be introduced to control devices such as switches, start/stop stations, magnetic motor starters, and programmable logic controllers (PLCs). This course concentrates on electric motors and their 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. Participants will learn to solder, braze and form tubing. In addition, electric motors and automatic controls are introduced. Upon successful completion of this course, learners will be eligible to take the EPA 608 refrigeration handling license examination. Job safety is emphasized.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-196	Oral/Interpersonal Communication	3 Credits
804-105	General Mathematics	3 Credits



Cyber-security, including computer and information systems security, is a rapidly growing area. Industry and government, including federal, state, and local governmental units, are looking for people who have specialized knowledge, skills, and abilities related to information assurance, information systems security, network security, web page programming, e-Commerce applications, and much more. This diploma prepares students for entry-level employment in support positions related to computer security with a special emphasis on Information Assurance.

Information Assurance includes operations that protect and defend information and information systems, by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. This includes providing for the restoration of information systems by incorporating protection, detection, and reaction capabilities. Information security systems provide protection against unauthorized access to, or modification of information, whether in storage, processing, or transit. Detection, documentation, and countering such threats are critical skill areas for specialists in this field.

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

- Identify resources, assess threats, analyze losses, identify vulnerabilities, and establish safeguards for automated information systems.
- Install, configure, and use specialized security software, hardware, and firmware components.
- Troubleshoot potential IT security issues and measures.
- Assist with IT security investigations.
- Implement preventive measures.
- Respond to threats from viruses, worms, and other unauthorized access to automated information systems.
- Assist in designing, implementing, and maintaining security in a client-server and Internetworked environment.
- Maintain appropriate security controls for software and hardware access.
- Support procedures related to individual privacy, confidentiality, and access to corporate information.
- Build a security plan that encompasses components for protection/security including physical security measures, personnel security procedures, software security, network security, administrative controls, auditing, monitoring, cryptosecurity, key management, and transmission security.

Graduates from this program are anticipated to be qualified for employment as:

- Data/Network Security Analyst/Manager/Consultant
- Information System Security Analyst/Manager/Consultant
- Internet/Web Security Analyst/Manager/Consultant
- Information Services Consultant
- Network Support Specialist
- Documentation Specialist

	Course Name	Credits	Lec-Lab
Semester 1			
150-120	Micro Operating Systems I	3	2 - 2
152-119	Programming Concepts	3	2 - 2
154-113	Micro Hardware Applications	3	2 - 2
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
804-133	Mathematics and Logic	3	3 - 0
Semester 2			
150-130	Network Design	3	2 - 2
150-151	Information Security Principles	3	2 - 2
150-152	Information Security Policies & Procedures[1]	3	2 - 2
152-143	Micro Programming II[1]	3	2 - 2
809-195	Economics	3	3 - 0
	Elective	3	3 - 0
Semester 3			
150-133	Network Security[1]	3	2 - 2
150-135	Operating Systems Security[1]	3	2 - 2
150-153	Information Security Documentation[1]	3	2 - 2
152-191	I'Net/WWW+	3	2 - 2
152-192	Designing Secure Websites[1]	3	2 - 2
809-198	Introduction to Psychology	3	3 - 0
Semester 4			
150-134	Internetwork Security I[1]	3	2 - 2
150-136	Internetwork Security II[1]	3	2 - 2
150-154	Security Measures & Countermeasures[1]	3	2 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective	3	3 - 0
TOTAL CREDITS		***69***	

[1]Course has prerequisites

[2]Recommended Electives:

150-155	Current Issues & Trends in Info. Assurance[1]	3	2 - 2
152-150	Systems Analysis & Design I	2	1 - 2
152-193	Client/Server Systems Security	3	2 - 2

Course Descriptions

150-120 Micro Operating Systems I **3 Credits**
Micro Operating Systems I is a lecture/hands-on course designed to teach a popular microcomputer client operating system in a data processing environment. The operating system covered is Microsoft Windows XP Professional, and the Command Line via Microsoft Windows XP. Topics include: a hands-on emphasis of operating system commands; how and when to use operating system commands; customization of the operating system user interface(s); file system design, creation, and maintenance; software installation; operating system installation and troubleshooting; and the advantages/disadvantages of different operating systems.

150-130 Network Design **3 Credits**
Network Design is a lecture/hands-on lab course designed to introduce students to network design fundamentals. Topics covered include: OSI Reference Model; LAN/WAN topologies; cabling systems; access methods; protocols; introduction to various network clients; and internet working devices (e.g. hubs, switches, bridges, routers, etc.).

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, firewall and router configurations, access lists, authentication, and encryption, in addition to reviewing the different methods of attacks, such as viruses, Trojan horses, and worms. This course also introduces wireless security concepts. ***Prerequisites: 150-130 Network Design.***

150-134 Internetwork Security I **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 and replication; and security enhancement features. Students will learn how to establish and maintain a secure, end-to-end link between internetworked clients and servers. ***Prerequisites: 150-133 Network Security and 150-152 Information Policies & Procedures.***

150-135 Operating Systems Security **3 Credits**
Students will cover the essentials of securing workstations and networks in GUI/Windows-based, and Unix/Linux-based systems. Topics include authentication, group security, remote access security, planning a public key infrastructure, security file resources, Internet Protocol security, and more. Active Directory and similar topics are also covered. Prior academic and/or occupational experience in computer science or information systems, or related discipline, is recommended. ***Prerequisites: 150-120 Micro Operating Systems I and 150-151 Information Security Principles.***

150-136 Internetwork Security II **3 Credits**
This course covers advanced 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 protect password files, monitor log files, and use tracers and scanners, as well as a variety of other information systems security hardware, software, and firmware. ***Prerequisite: 150-134 Internetwork Security I or comparable experience.***

150-151 Information Security Principles **3 Credits**
Students will be provided with a detailed knowledge of information security concepts, by addressing the five phases of security: inspection, protection, detection, reaction, and reflection. You will learn how to analyze the most critical risks and threats, define an information security strategy and architecture, and plan for and respond to intentional and unintentional insecurities. Prior academic and/or occupational experience in computer science or information systems, or related discipline, is recommended.

150-152 Security Policies and Procedures **3 Credits**
Students will learn how to develop a security vision statement, plus write effective but simple security policies and procedures that protect information, people, and property; control e-Commerce information systems; and comply with legal and policy requirements. Students will also evaluate information and systems, assign ownership and responsibilities, and develop an emergency response plan. ***Prerequisite: 150-151 Information Security Principles, or comparable experience.***

150-153 Information Security Documentation **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. ***Prerequisites: 150-151 Information Security Principles and 150-152 Security Policies and Procedures, or comparable experience with consent of the instructor (portfolio portion requires completion of all prior courses).***

150-154 Security Measures & Countermeasures **3 Credits**
This is the capstone course for the InfoSec/IA Specialist Program and allows the student to gain a systemic view of Information Security principles and procedures. The course covers compliance auditing and monitoring, as well as a review of the body of knowledge gained in previous courses. The primary methods of learning will be "hands-on", as students work in small groups to prepare for entry into an enterprise position involving the practice of InfoSec/IA skills. ***Prerequisite: 150-134 Internetwork Security I and 150-153 lnformation Security Documentation.***

150-155 Current Issues & Trends in Information 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. ***Prerequisite: Information Security Principles or comparable occupational experience. 150-151 Information Securities Principles or comparable occupational experience.***

152-119 Programming Concepts **3 Credits**
Programming Concepts is a lecture/lab course that includes a discussion of problem-solving principles and 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. An introduction to object orientation is given.

152-143 Micro Programming II **3 Credits**
Micro Programming II is a lecture/lab course in the Java programming language. Topics covered include: program logic; program design; program coding; input/output (I/O); math operators; relational operators; logical operators, sequence; selection; interaction; and methods utilizing Java applications. ***Prerequisite: 152-119 Micro Programming Logic.***

152-191 I'Net/WWW+ **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. Prior academic and/or occupational experience in computer science or information systems, or related discipline, is recommended.

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. ***Prerequisite: 152-191 I'Net/WWW+ or comparable experience.***

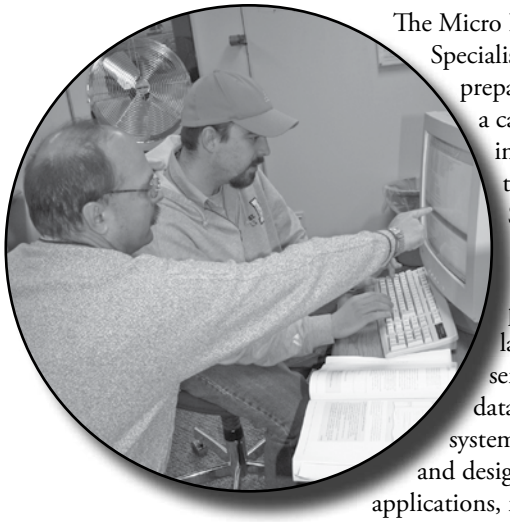
152-193 Client/Server Systems Security **3 Credits**
This course provides an overview of the most critical topic in the Information Assurance arena: secure data exchange between internetworked systems. Topics include client/server security system design concepts; developing a database security and audit 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. ***Prerequisites: 150-151 Information Security Principles and 152-143 Micro Programming II.***

154-113 Micro Hardware Applications **3 Credits**
Micro Hardware Applications is a lecture/hands-on course deigned to teach students microcomputer hardware fundamentals. Topics include: basic computer setup, installation and configuration of desktop operating systems hardware installation, and troubleshooting. Previous understanding of operating systems is recommended.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-133	Mathematics & Logic	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits



The Micro Programmer Specialist program prepares students for a career in business information technology. Students receive training in computer programming languages, client/server computing, database theory, systems analysis and design, Internet applications, microcomputer operating systems, and software applications.

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

- Utilize structured programming principles in the creation, editing, compilation, and execution of computer programs.
- Utilize object-oriented programming principles in the creation, editing, compilation, and execution of computer programs.
- Utilize client-server-based programming principles in the creation, editing, compilation, and execution of computer programs.
- Utilize object-oriented analysis and design as well as structured analysis and design in the creation and construction of computer applications.
- Utilize project management software and skills to manage a project from inception through implementation.
- Utilize client-server-based principles in the creation and construction of computer applications.
- Utilize an industry-standard relational database management system (RDBMS) to illustrate an understanding of data design and data access.
- Use the Internet and standard office productivity applications as tools.
- Utilize microcomputer operating systems.
- Utilize communication and problem-solving skills to troubleshoot and solve computer-related problems.

Graduates from this program have found employment as:

- Computer Programmer
- Programmer Analyst
- Business Analyst
- Web Developer
- Help Desk Analyst
- Microcomputer Programmer
- Microcomputer Systems Analyst
- Applications Developer

Helpful High School Courses:

- Software Applications
- Internet Applications
- Algebra and math
- Business and information technology
- English
- Communications

	Course Name	Credits	Lec-Lab
Semester 1			
150-120	Micro Operating Systems I	3	2 - 2
150-130	Network Design	3	2 - 2
152-119	Programming Concepts	3	2 - 2
801-195	Written Communication	3	3 - 0
804-133	Mathematics & Logic	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
Semester 2			
152-129	Database Concepts1	3	2 - 2
152-133	Advanced Systems Documentation[1]	2	1 - 2
152-142	Micro Programming I[1]	3	2 - 2
152-143	Micro Programming II[1]	3	2 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
Semester 3			
152-144	Micro Programming III[1]	3	2 - 2
152-145	Micro Programming IV[1]	3	2 - 2
152-147	Client/Server I[1]	3	2 - 2
152-150	Systems Analysis & Design I[1]	2	1 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective[2]	3	3 - 0
Semester 4			
102-148	Business Organization OR	3	3 - 0
104-140	eCommerce		3 - 0
152-148	Client/Server II[1]	3	2 - 2
152-151	Systems Analysis & Design II[1]	2	1 - 2
152-171	Systems Implementation[1]	2	1 - 2
152-182	Micro Programmer Field Study[1&2]	1	1 - 0
809-195	Economics	3	3 - 0
	Elective[2]	3	3 - 0
TOTAL CREDITS		***66***	

[1]Course has prerequisites.

[2]Recommended Electives:

152-157	Web Programming I and	3	2 - 2
152-158	Web Programming II) OR	3	2 - 2
152-154	Advanced Access	3	2 - 2
152-139	Current Issues & Trends in Computer Science	3	2 - 2
152-181	Supervised Occupational Experience	2	0 - 8

Course Descriptions

102-148 Business Organization **3 Credits**
An in-depth look is given to the various activities, which make up a business enterprise. It offers the student an insight into the responsibilities connected with the operation of a business from the viewpoint of the organization, management and employee.

104-140 eCommerce **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 eCommerce will be explored

152-119 Programming Concepts **3 Credits**
Micro Programming Logic is a lecture/lab course that includes a discussion of problem-solving principles and 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. An introduction to object orientation is also given.

152-129 Database 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. ***Prerequisite: 152-119 Programming Concepts.***

152-133 Advanced Systems Documentation **2 Credits**
Advanced Systems Documentation is a lecture/lab course that will focus on technical writing skills. Hands-on work will include creating and editing system documentation, program documentation, and network documentation. ***Prerequisite: 152-119 Programming Concepts and 150-120 Micro Operating Systems I.***

152-142 Micro Programming I **3 Credits**
Micro Programming I is a lecture/lab course introducing the student to the Visual Basic.NET (VB.NET) computer programming language. Emphasis will be on the methods, procedures and thought processes necessary for effectively programming a computer using VB. Topics covered include: program logic; program design; program coding; the utilization of modules, procedures, functions, and variables; sequence, selection; iteration; arrays; and file handling. ***Prerequisites: 152-119 Programming Concepts.***

152-143 Micro Programming II **3 Credits**
Micro Programming II is a lecture/lab course in the Java programming language. Topics covered include: program logic; program design; program coding; input/output (I/O); math operators; relational operators; logical operators; sequence; selection; iteration; and methods all utilizing Java applications. ***Prerequisite: 152-119 Programming Concepts.***

152-144 Micro Programming III **3 Credits**
Micro Programming III is a lecture/lab course covering advanced concepts of the Visual Basic.NET (VB.NET) programming language. Topics covered include: file input/output (I/O); error handling; debugging and testing; multi-user applications; add-ins, database programming; and an introduction to client/server computing. ***Prerequisite: 152-142 Micro Programming I.***

152-145 Micro Programming IV **3 Credits**
Micro Programming IV is a lecture/lab course covering advanced concepts of the Java programming language. Topics covered include: inheritance; packages; interfaces; abstract classes; advanced string manipulation, I/O streams; applications, the Java Abstract Window Toolkit (AWT) and JSwing. ***Prerequisite: 152-143 Micro Programming II.***

152-147 Client/Server I **3 Credits**
Client/Server I is a lecture/lab class split into two parts: 1) A general review/overview of database theory, including relational database management systems (RDBMS) and normalization; 2) The fundamentals of structured query language (SQL) utilizing client/server based database software. ***Prerequisites: 152-129 Database Concepts.***

152-148 Client/Server II **3 Credits**
Client/Server II is a lecture/lab course utilizing a software package (e.g., Oracle) in an advanced Client/Server (C/S) environment. Topics covered include: advanced structured query language (SQL) concepts, forms, reports, and client/server programming. ***Prerequisite: 152-147 Client/Server I.***

152-150 Systems Analysis and Design I **2 Credits**
Systems Analysis & Design I is a lecture/lab course intended to introduce the student to the concepts involved in a small-to-medium sized information systems project from inception to implementation. We will cover the traditional analysis and design methodologies as well as object-oriented methodologies. Throughout the life cycle of the analysis and design process, we will cover project management, utilizing Microsoft Project. We will use Microsoft Visio as a tool in diagramming various components of the system during the analysis phase, and we will use Microsoft Access as a tool in the project's design phase. Additional concepts covered will be verbal and written communication with users and team members, professional behavior, professional attire, problem identification, and problem solving. SAD I will draw on knowledge obtained from previous classes, and synthesize and apply that knowledge. ***Prerequisite: 152-129 Database Concepts and 150 -120 Micro Operating Systems I.***

152-151 System Analysis and 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. ***Prerequisite: 152-150 Systems Analysis and Design I.***

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. ***Prerequisite: 152-129 Database Concepts or consent of instructor.***

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. ***Prerequisite: 152-150 Systems Analysis and Design I.***

152-181 Micro Programmer Internship **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. ***Prerequisites: Completion of first year courses including 152-150 Systems Analysis and Design I.***

152-182 Micro Programmer Field Study **1 Credit**
Micro Programmer 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. ***Prerequisites: Completion of first year courses including 152-150 Systems Analysis and Design I.***

150-120 Micro Operating Systems I **3 Credits**
Micro Operating Systems I is a lecture/hands-on course designed to teach a popular microcomputer client operating system in a data processing environment. The operating system covered is Microsoft Windows XP Professional, and the Command Line via Microsoft Windows XP. Topics include: a hands-on emphasis of operating system commands; how and when to use operating system commands; customization of the operating system user interface(s); file system design, creation, and maintenance; software installation; operating system installation and troubleshooting; and the advantages/disadvantages of different operating systems.

150-130 Network Design **3 Credits**
Network Design is a lecture/hands-on lab course designed to introduce students to network design fundamentals. Topics covered include: OSI Reference Model; LAN/WAN topologies; cabling systems; access methods; protocols; introduction to various network clients; and internet working devices (e.g. hubs, switches, bridges, routers, etc.).

152-157 Web Programming I **3 Credits**
Web Programming I is a beginning class in client-side Web programming. Topics covered include: the fundamentals of Hypertext Markup Language (HTML), JavaScript, and the eXtensible Markup Language (XML). Students will demonstrate an intermediate understanding of HTML; be able to add JavaScript and XML to HTML; and be able to write, debug, and execute programming scripts that utilize HTML and HTML with JavaScript and/or XML. Web Programming I may be taken concurrently with 107-158 Web Programming II. ***Prerequisites: Internet and text editor experience. 152-119 Programming Concepts is recommended.***

152-158 Web Programming II **3 Credits**
Web Programming II is a beginning class in server-side Web programming. The course covers the fundamentals of a server-side programming language (e.g., ASP.NET, PHP or Perl). Topics covered include: control structures; variables; subroutines and functions; regular expressions; string manipulation; file processing; objects; and database processing. Web Programming II may be taken concurrently with 107-157 Web Programming I. ***Prerequisites: 152-119 Programming Concepts is recommended.***

153-139 Current Issues & Trends in IT **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. ***Prerequisite: Completion of first year coursework or consent of the instructor.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-133	Mathematics & Logic	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

The Network Specialist Associate Degree prepares students for a career in computer network support and integrated technology in order to meet the corporate demands for information sharing. Students receive training in network design, installation, troubleshooting, administration, and management.

After completing this program, the student will have covered basic topic areas needed for the MCSA, Net+, A+, CCNA and CNA certifications.

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

- Configure desktop hardware
- Troubleshoot microcomputer hardware and software problems
- Design a complex network to efficiently facilitate the flow of information using current LAN/WAN technologies
- Configure network equipment
- Utilize TCP/IP protocol suite for network configuration and administration
- Manage desktop operating systems and software
- Manage network operating systems
- Apply systems analysis and design as well as project management concepts
- Use the Internet as both a research and publishing tool
- Troubleshoot complex LAN/WAN issues
- Research, organize and present a seminar on a current networking technology
- Create, maintain, and update network documentation
- 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
- Analyze and secure network systems to prevent unauthorized access

Graduates from this program have found employment as:

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

Helpful High School Courses:

- Keyboarding and Software Applications
- PC Hardware Installation
- Internet Applications
- Web Page Design
- Algebra and math
- Business and information technology
- English and Speech

	Course Name	Credits	Lec-Lab
Semester 1			
150-120	Micro Operating Systems I	3	2 - 2
152-119	Programming Concepts	3	2 - 2
154-113	Micro Hardware Applications	3	2 - 2
801-195	Written Communication	3	3 - 0
804-133	Mathematics & Logic	3	3 - 0
809-195	Economics	3	3 - 0
Semester 2			
102-148	Business Organization OR	3	3 - 0
104-140	eCommerce *(3 Credits)*		
150-121	Micro Operating Systems II[1]	3	2 - 2
150-130	Network Design	3	2 - 2
152-129	Database Concepts	3	2 - 2
152-133	Advanced Systems Documentation[1]	2	1 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
Semester 3			
150-127	Network Operating Systems I[1]	3	2 - 2
150-128	Network Operating Systems II[1]	3	2 - 2
150-131	Network Installation/Troubleshooting[1]	3	2 - 2
152-150	Systems Analysis & Design I[1]	2	1 - 2
809-198	Introduction to Psychology	3	3 - 0
	Elective[2]	3	3 - 0
Semester 4			
150-117	LAN/WAN Integration[1]	3	2 - 2
150-132	Network Management[1]	3	2 - 2
150-182	Networking Field Study[1&3]	1	1 - 0
152-151	Systems Analysis & Design II [1]	2	1 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective[2]	3	3 - 0
TOTAL CREDITS		***67***	

[1]Course has prerequisites.

[2]Recommended Electives:

107-139	Current Issues & Trends in Computer Science: Linux Admin.
107-154	Advanced Access
150-181	Supervised Occupational Experience-Networking[1]

[3]Students may take 150-181 and/or 150-182 to satisfy program requirements.

Course Descriptions

102-148 Business Organization **3 Credits**
An in-depth look is given to the various activities, which make up a business enterprise. It offers the student an insight into the responsibilities connected with the operation of a business from the viewpoint of the organization, management and employee.

104-140 eCommerce **3 Credits**
This course provides an overview of electronic commerce. Business models underlying these electronic commerce applications are studied from both an operational and 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 eCommerce will be explored.

150-117 LAN/WAN Integration **3 Credits**
LAN/WAN Integration is a hands-on course where students build multiplatform, multiprotocol, multiserver networks from the ground up. Topics include: installation and configuration of client software, protocols, and servers; virtual LANs, switches, routers, virtual private networks, secure infrastructure design, and WAN technologies. ***Prerequisites: 150-131 Network Installation/Troubleshooting, 150-127 Network Operating Systems I, 150-128 Network Operating Systems II.***

150-120 Micro Operating Systems I **3 Credits**
Micro Operating Systems I is a lecture/hands-on course designed to teach a popular microcomputer client operating system. The operating system covered is Microsoft Windows XP Professional. Topics include operating system installation and troubleshooting, and the use of users, groups, profiles, and policies. Best practices for securing the desktop environment are also discussed.

150-121 Micro Operating Systems II **3 Credits**
Micro Operating Systems II is a lecture/hands-on course designed to teach the configuration and administration of Windows Server and the use and administration of a Novell Netware Server. Course includes the installation of various network clients as well as the use of users, groups, profiles and policies for Windows Server administration. An introduction to the Novell Networking client and the management of users and server resources will also be included. ***Prerequisites: 150-120 Micro Operating Systems I and 154-113 Micro Hardware Applications.***

150-127 Network Operating Systems I **2 Credits**
Network Operating Systems I is a lecture/hands-on course designed to teach basic network administration. This course concentrates on Microsoft Network Operating Systems such as Windows 2003 and Active Directory Server. Topics include: network administrator responsibilities; login security, file system security and design; Active Directory administration and design; user administration; client installation, configuration, and troubleshooting; print management; software installation and troubleshooting. ***Prerequisite: 150-121 Micro Operating Systems II, and 152-133 Advanced Systems Documentation.***

150-128 Network Operating Systems II **2 Credits**
Network Operating Systems II is a lecture/hands-on course designed to teach basic network administration. This course concentrates on the Novell Network Operating System. Topics include: network administrator responsibilities; login security, file system security and design; Novell Directory Services administration and design; user administration; client installation, configuration, and troubleshooting; print management; software installation and troubleshooting. ***Prerequisites: 150-121 Micro Operating Systems I and 152-133 Advanced Systems Documentation.***

150-130 Network Design **3 Credits**
Network Design is a lecture/hands-on lab course designed to introduce students to network design fundamentals. Topics covered include: OSI Reference Model; LAN/WAN topologies; cabling systems; access methods; protocols; introduction to various network clients; and internetworking devices *(e.g. hubs, switches, bridges, routers, etc.).*

150-131 Network Installation/Troubleshooting **3 Credits**
Network Installation and Troubleshooting is a lecture/hands-on 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. ***Prerequisites: 150-130 Network Design, 150-121 Micro Operating Systems II, and 152-133 Advanced Systems Documentation.***

150-132 Network Management **3 Credits**
Network Management is a capstone project course 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. ***Prerequisites: 150-117 LAN/WAN Integration, and 152-151 Systems Analysis II.***

150-139 Current Issues & Trends in IT **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. ***Prerequisite: Completion of first year coursework or consent of the instructor.***

150-181 Supervised Occupational Experience-Networking **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. ***Prerequisites: Completion of third semester courses including 152-150 Systems Analysis and Design.***

150-182 Networking Field Study **1 Credit**
Networking 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. ***Prerequisites: Completion of third semester courses including 152-150 Systems Analysis and Design.***

152-119 Programming Concepts **3 Credits**
This lecture/lab course includes a discussion of problem-solving principles and 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. An introduction to object orientation is also given.

152-129 Database 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. ***Prerequisite: 152-119 Programming Concepts.***

152-133 Advanced Systems Documentation **2 Credits**
This lecture/lab course will focus on technical writing and documentation skills. Hands-on work will include creating and editing system documentation, program documentation, and network documentation. ***Prerequisites: 152-119 Programming Concepts and 150-120 Micro Operating Systems I.***

152-150 Systems Analysis and Design I **2 Credits**
Systems Analysis & Design I is a lecture/lab course intended to introduce the student to the concepts involved in a small-to-medium sized information systems project from inception to implementation. We will cover the traditional analysis and design methodologies as well as object-oriented methodologies. Throughout the life cycle of the analysis and design process, we will cover project management, utilizing Microsoft Project. We will use Microsoft Visio as a tool in diagramming various components of the system during the analysis phase, and we will use Microsoft Access as a tool in the project's design phase. Additional concepts covered will be verbal and written communication with users and team members, professional behavior, professional attire, problem identification, and problem solving. SAD I will draw on knowledge obtained from previous classes, and synthesize and apply that knowledge. ***Prerequisites: 152-129 Database Concepts and third semester standing or consent of instructor.***

152-151 System Analysis and Design II **2 Credits**
Systems Analysis & Design II is a lab/lecture 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. ***Prerequisite: 152-150 Systems Analysis and Design. Co-requisites: 150-117 LAN/WAN Integration and 150-132 Network Management.***

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. ***Prerequisites: 152-129 Database Concepts or consent of instructor.***

154-113 Micro Hardware Applications **3 Credits**
Micro Hardware Applications is a lecture/hands-on course designed to teach students microcomputer hardware fundamentals. Topics include: basic computer setup, installation and configuration of desktop operating systems, hardware installation, and troubleshooting. Previous understanding of operating systems is recommended.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-133	Mathematics & Logic	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

Attractively designed, healthy, and well-maintained lawns, gardens, trees, and shrubbery create a positive first impression, establish a peaceful mood, create spaces for outdoor activities, and increase property values. A growing number of individuals, businesses, and organizations rely on landscape and turf professionals to establish and care for their landscapes. These professionals create designs, establish trees, hedges and flowering plants; build terraces, retaining walls, and patios; and establish and maintain turf grasses for a variety of residential, commercial and athletic uses. The Landscape & Turf Services Program is offered in eight-week sessions, on a part-time evening and Saturday basis. Workers already employed, as well as those just beginning in the field, take advantage of the flexible programming.

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

- Apply safety principles and practices in use of tools, equipment, and products
- Maintain hand tools and power equipment
- Assess project and site parameters
- Select commonly used plants for various applications (annuals, perennials, trees, shrubs, grasses, interior plants)
- Implement landscape design plans
- Maintain turf and landscape plants

Graduates from this program have found employment as:

- Landscape Worker
- Nursery Worker
- Greens Keeper
- Garden Center Worker
- Forester
- Horticulture Machine Maintenance Worker
- Turf Worker
- Arborist

Career Outlook

The increasing demand for landscaping services points to plentiful job openings in this occupation.

	Course Name	Credits	Lec-Lab
Required Courses			
001-301	Diseases, Weeds, & Pests	1	1 - 1
001-302	Landscape Design I	1	1 - 1
001-303	Horticultural Pest Control	1	1 - 1
001-304	Outdoor Power Equipment Operation & Maintenance	1	1 - 1
001-305	Soils & Fertilizers	1	1 - 1
001-307	Landscape Construction	1	1 - 1
001-308	Turf & Lawn Grasses	1	1 - 1
001-309	Landscape Design II	1	1 - 1
001-317	Landscape Plants *(Annuals & Perennials)*	1	1 - 1
001-318	Landscape Plants (Trees & Shrubs)	1	1 - 1
Additional Courses (4 credits required):			
001-306	Arborculture & Grounds Maintenance	1	1 - 1
001-310	Business Operations	1	1 - 1
001-313	Athletic Field & Golf Course Maintenance	1	1 - 1
001-321	Landscape Design III - Advanced	1	1 - 1
001-322	Contemporary Issues	1	1 - 1
001-323	Orchard and Fruit Culture	1	1 - 1
001-324	Plant Propagation & Management	1	1 - 1
001-325	Interior Plantscapes	1	1 - 1
TOTAL CREDITS		***14***	

Fourteen credits required for graduation. Short-term certificate options are available. Classes available for audit upon request.

Course Descriptions:

001-301 Diseases, Weeds and 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**
The learner develops basic landscape plans with an emphasis on function, design principles, and composition. ***Prerequisite: 001-318 Landscape Plants (Trees & Shrubs)***

001-303 Horticultural Pest Control 1 Credit
The study of various types of pesticides, methods of application, and safety precautions in their use. Students may take the Wisconsin Horticultural Pest Control exam at the completion of the course.

001-304 Outdoor Power Equipment Operation and Maintenance 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 Arborculture and Grounds Maintenance 1 Credit
Care of flowers, lawns, shrubs, trees and woodlots are covered in this class. Emphasis is also placed on watering, transplanting, pruning, cutting and chemical applications.

001-307 Landscape Construction 1 Credit
A hands-on course on establishing proper slope and plantings according to a landscape design plan. Installation of retaining walls, walkways, and other hardscapes are also covered.

001-308 Turf and 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.

001-309 Landscape Design II 1 Credit
Students continue plans started in the Landscape Design I class. New principles of composition and design such as sections, elevations, and simple perspectives are studied.
Prerequisite: 001-302 Landscape Design I

001-310 Business Operations 1 Credit
This class provides the learner with entry-level skills for operating a business in the horticulture industry. Basic financial, marketing and business plans are covered.

001-313 Athletic Field & Golf Course Maintenance 1 Credit
This course emphasizes solutions to problems unique to athletic fields and golf course operations. This includes maintenance of plants and associated equipment.

001-317 Landscape Plants (Annuals and Perennials) 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 Landscape Plants (Trees and 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-Advanced 1 Credit
Students complete landscape design projects and have them evaluated for practicality and maintainability. Some design projects may be constructed by landscape students.
Prerequisite: 001-309 Landscape Design II

001-322 Contemporary Issues 1 Credit
Learners explore current issues within the green industry. Environmental, legal, site, and new technologies are among the topics that may be addressed.

001-323 Orchard and 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 and Management 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.

The Legal Secretary Program prepares students for employment as skilled assistants in single-attorney law offices, law firms, government offices, insurance agencies, real estate agencies, title insurance companies, corporate offices, banks, and other organizations needing skilled employees who have some substantive and procedural knowledge of the law. Legal Secretary 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–
Upon completion of this program, you will be able to:

- 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 citation 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 personnel 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.
- Use legal research software for research projects.
- Use arithmetic and mathematic skills to solve problems.
- Manage electronic and paper-based information.

Graduates from this program have found employment as:

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

Helpful High School Courses:

- Touch keyboarding skill of 40 wpm or higher for 5 minutes with 5 or fewer uncorrected errors is a prerequisite for one or more first semester courses in this program.

	Course Name	Credits	Lec-Lab
Semester 1			
102-160	Business Law	3	3 - 0
106-129	Business Filing	1	0 - 2
801-195	Written Communication	3	3 - 0
804-106	Introduction to College Mathematics	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
	Elective(s):	3	varies
Semester 2			
101-102	Office Accounting	3	2 - 2
106-133	Document Formatting[1]	3	1 - 4
106-175	Legal Office Communications I	3	2 - 2
106-176	Legal Office Technologies[1]	3	2 - 2
106-180	Legal Terminology & Court Structure	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
Semester 3			
106-110	Legal Office Communications II[1]	3	2 - 2
106-132	Legal Document Transcription[1]	3	1 - 4
106-141	Legal Document Processing[1]	3	1 - 4
106-152	Techniques of Legal Practice I[1]	3	1 - 4
801-196	Oral/Interpersonal Communication	3	3 - 0
Semester 4			
106-134	Legal Documentation[1]	2	2 - 0
106-151	Legal Office Management[1]	3	3 - 0
106-154	Techniques of Legal Practice II[1]	3	3 - 0
106-177	Legal Office Case Management[1]	3	2 - 2
809-195	Economics	3	3 - 0
	Elective(s):	3	varies
TOTAL CREDITS		***66***	

*Course has prerequisite.

Recommended Electives:

106-131	Keyboarding Applications
106-140	Keyboarding
106-143	Typing/Keyboard Skillbuilding
106-163	Supervised Occupational Experience–Legal Secretary

[1]Course has prerequisite that has to have been successfully completed.

Course Descriptions

101-102 Office Accounting **3 Credits**
A basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing the worksheet, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash. Labs will introduce the use of the microcomputer in accounting.

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.

106-110 Legal Office Communications II **3 Credits**
This course is a review of business English including spelling, capitalization, number usage, punctuation, word division and proofreading. The course also introduces specific areas of law including Wisconsin civil procedure, real estate documentation, and divorce procedures. Composition at the computer is also a part of this class. Specific legal office communication examples will be used in this course. ***Prerequisite: 106-180 Legal Terminology and Court Structure, and 106-175 Legal Office Communications I.***

106-129 Business Filing **1 Credit**
Students learn the Association of Records Managers and Administrators (ARMA) filing rules through experience with various filing methods. Students will be introduced to file maintenance procedures, supplies and equipment, active and inactive filing systems, and records control procedures.

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. Students can expect to possess keyboarding skills of 40 wpm or higher at the end of this course. ***Touch keyboarding skill (30 wpm for 3 minutes with 3 or fewer uncorrected errors) is assumed at the beginning of this course. This course is not required for students who can demonstrate this competency on a timed test.***

106-132 Legal Document Transcription **3 Credits**
Instruction is given on the use of transcribing machines with emphasis on the production of legal correspondence and documents on the computer. The goal in this class is the production of mailable documents and correspondence with periodic timed exercises to check progress in production. There is added emphasis on the improvement of legal terminology, English, proofreading, and listening skills. ***Prerequisite: Document Formatting with touch keyboarding skill of 50 wpm for 5 minutes with 5 or fewer uncorrected errors.***

106-133 Document Formatting **3 Credits**
Document Formatting further develops computer keyboarding skills and emphasizes the production of a wide range of typical business correspondence, tables, reports, and forms from unarranged and rough-draft sources. This course has a heavy emphasis on producing mailable documents. Team projects involve the students in simulated office projects utilizing document production techniques, decision-making abilities, and interpersonal skills. ***Prerequisites: Format basic letters, memos, reports, and tables; and touch keyboarding skill of 40 wpm for 5 minutes with 5 or fewer uncorrected errors.***

106-134 Legal Office Communications II **2 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 in the law library from citations is included. The basics of computerized legal research and writing, along with the preparation of legal documents, are stressed. ***Prerequisites: 106-110 Legal Office Communications II, 106-132 Legal Document Transcription, 106-141 Legal Document Processing, and 106-152 Techniques of Legal Practice I.***

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. Students completing this course may be ready for 106-131 Keyboarding Applications, or may continue to develop their proficiency and keyboarding abilities in Skillbuilding. ***This course is not required for students who can demonstrate keyboarding skills of 30 words per minute with 3 or fewer uncorrected errors on a 3 minute timing.***

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. ***Prerequisites: 106-180 Legal Terminology and Court Structure and 106-133 Document Formatting.***

106-143 Skillbuilding **1 Credit**
This elective 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. This course may be taken more than once to further develop skills. Students should know the alphabetic keyboard by touch or have taken 106-140 Keyboarding. Students completing this course may be ready for 106-131 Keyboarding Applications or may continue to develop their proficiency and keyboarding abilities by repeating the course. ***This course is not required for students who can demonstrate keyboarding skills of 30 words per minute with 3 or fewer uncorrected errors on a 3 minutes timing.***

106-151 Legal Office Management **3 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; a mock interview will be required. ***Prerequisites: 106-110 Legal Office Communications II, 106-132 Legal Document Transcription, 106-141 Legal Office Document Processing, and 106-152 Techniques of Legal Practice I.***

106-152 Techniques of Legal Practice I **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. ***Prerequisite: 106-133 Document Formatting, 106-180 Legal Terminology and Court Structure, and 106-175 Legal Office Communications I.***

106-154 Techniques of Legal Practice II **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. This will enable students to enter jobs and understand what they are doing as well as why the task is necessary. Another objective is to create an interest in paralegal-type work so that continued learning and acceptance of increasing responsibility is apparent. ***Prerequisites: 106-110 Legal Office Communications II, 106-132 Legal Document Transcription, 106-141 Legal Document Processing, and 106-152 Techniques of Legal Practice I.***

106-163 Supervised Occupational Experience–Legal Secretary **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. ***Prerequisites: Completion of formal instruction in all courses of the first 3 semesters of the Legal Secretary Program.***

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 Technologies **3 Credits**
Legal Office Technologies is a course designed to provide the student with the foundational skills needed to operate a computer and an introduction of some typical software applications used in a legal office. Included in this course are Windows operating system, basic word processing, spreadsheet, and presentation software. Students will learn the fundamental concepts associated with each component. An additional unit on voice recognition in the law office will be included. ***Prerequisite: Touch keyboarding skill of 30 words per minute.***

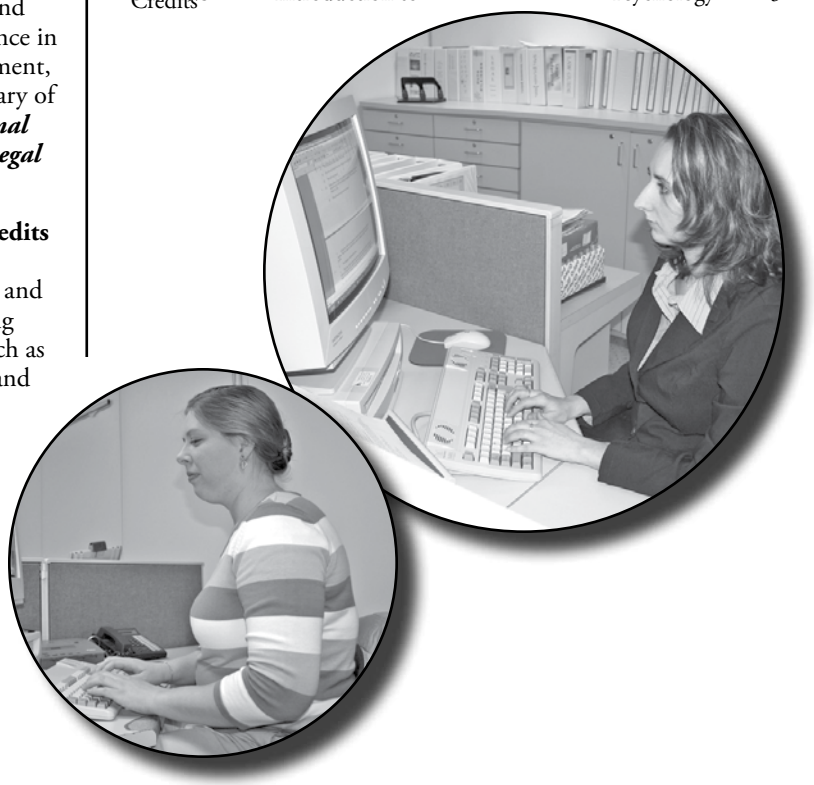
106-177 Legal Office Case Management **3 Credits**
This course is a capstone course and intended for the student's final semester. It will include case studies that will take a student from the beginning of a client's case through a variety of the procedures completed on a daily basis in a legal office. Students will be using all skills previously learned in prior semesters. ***Prerequisites: 106-110 Legal Office Communications II, 106-132 Legal Document Transcription, 106-141 Legal Document Processing, and 106-152 Techniques of Legal Practice I.***

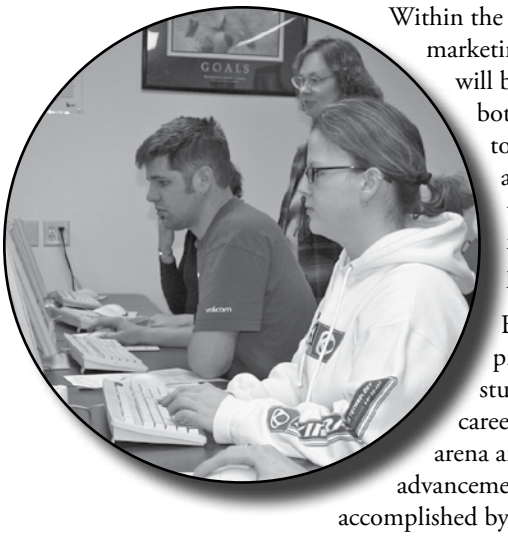
106-180 Legal Terminology & Court Structure **3 Credits**
This course is designed to introduce the student to basic legal vocabulary. The fields of law covered include criminal, torts, personal property, agency, wills and estates, and real property. The class also covers terminology relating to practice and procedure in the courts.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-106	Introduction to College Math	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits





Within the broad field of marketing, students will be exposed to both business-to-business and business-to-consumer marketing practices.

BTC's Marketing program prepares students for careers within each arena and for career advancement. This is accomplished by providing learners with two types of job-related skills: (1) those which deal with problem-solving and decision-making, interpersonal relations, communications, and leadership skills that apply to a broad range of supervisory and management positions; and (2) those skills which apply to the specific functions that will be expected to be performed upon job entry.

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

- Recommend a pricing plan.
- Evaluate alternative distribution strategies.
- Develop a product and service mix.
- Generate marketing information for effective decision-making.
- Apply continuous improvement strategies to solve marketing problems.
- Assess emerging global trade activities that impacts on business and marketing.
- Create a personal professional development plan.
- Manage resource and risks to contribute to financial profitability of the organization.
- Manage marketing within an enterprise.
- Apply technology to marketing and marketing information systems.
- Apply legal and ethical principles to personal, social and professional behaviors.
- Develop long term strategic marketing plans.
- Formulate selling strategies.
- Apply effective leadership skills.
- Design a promotional plan.

Graduates from this program have found employment as:

- District Managers
- Marketing Assistants
- Account Executives
- Sales Representatives
- Customer Service Managers
- Retail Management
- Merchandise Buyers
- Marketing Coordinators
- Sales Supervisors

Helpful High School Courses & Activities:

- DECA and FBLA events & activities
- Business Education & Marketing
- Computers and technology classes
- Writing and communications

	Course Name	Credits	Lec-Lab
Semester 1			
103-106	Introduction to MS Office	3	3 - 0
104-102	Marketing Principles	3	3 - 0
104-104	Selling Principles	3	3 - 0
104-149	Marketing Orientation	1	1 - 0
197-107	Professional Profiles	3	3 - 0
801-195	Written Communication	3	3 - 0
Semester 2			
104-113	Marketing Career Strategies	1	0 - 2
104-144	Graphic Applications in Marketing[1]	3	1 - 4
104-190	Retail Principles	3	3 - 0
104-193	Supervision[1]	3	3 - 0
801-196	Oral - Interpersonal Communications	3	3 - 0
804-117	Business Math	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
Semester 3			
104-117	Promotion Principles[1]	3	3 - 0
104-125	Marketing Media	3	3 - 0
104-154	Supervised Occupational Experience - Marketing[1]	2	0 - 8
104-160	Marketing Research[1]	3	3 - 0
809-195	Economics	3	3 - 0
	Elective	3	3 - 0
Semester 4			
104-111	Computer Applications in Marketing[1]	3	2 - 2
104-118	Design Concepts[1]	2	1 - 2
104-140	e-Commerce[1]	3	3 - 0
104-146	Marketing Management[1]	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
TOTAL CREDITS		***69***	

[1]Course has a prerequisite.

Two certificate options which may enhance employability and also applies towards a Marketing Associate Degree can be awarded by completing the following courses:

Marketing Certificate

104-102 Marketing Principles
104-104 Selling Principles
104-117 Promotion Principles
104-160 Marketing Research

Promotion Certificate

104-102 Marketing Principles
104-117 Promotion Principles
104-125 Marketing Media
104-144 Graphic Applications in Marketing

Course Descriptions

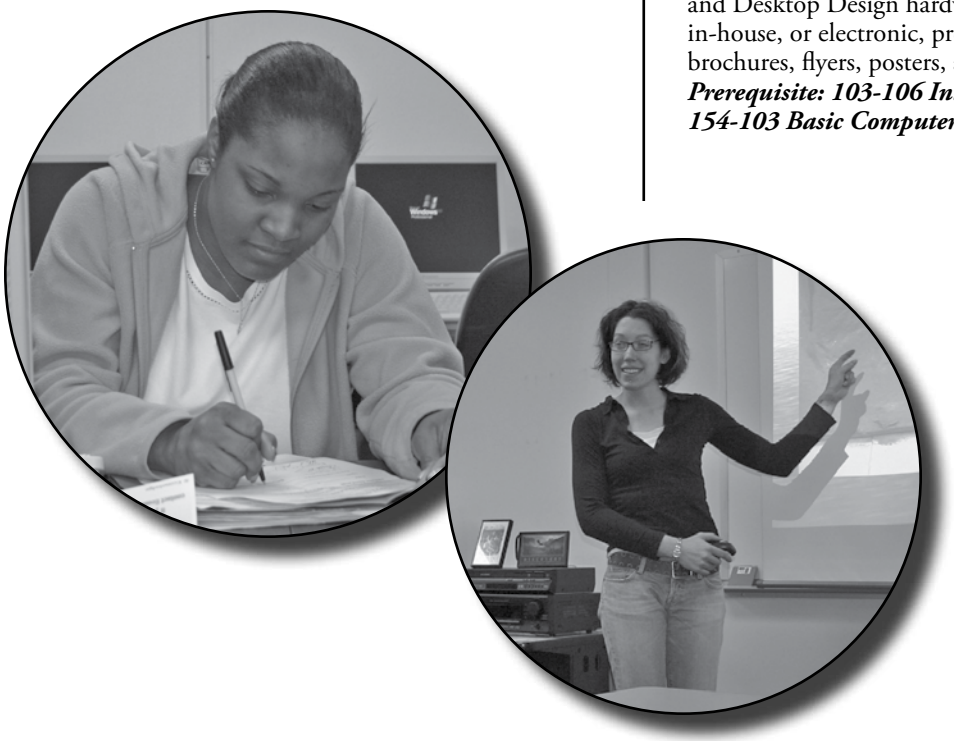
103-106 Introduction to MS Office **3 Credits**
Intended for students with little or no prior computer experience. This course will introduce students to the Microsoft Office Suite and overview many of the core competencies of Outlook, Word, Excel, Access, PowerPoint, and Explorer. Students will develop their use of technology for both problem solving and decision-making, and will be expected to learn to use the resources available to search for answers to problems.

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 rational 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 cover 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.

104-111 Computer Applications in Marketing **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. ***Prerequisite: 103-106, Introduction to MS Office or 154-103, Basic Computer Concepts.***

104-113 Marketing Career Strategies **1 Credit**
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.



104-117 Promotion Principles **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. ***Prerequisite: 104-102 Marketing Principles.***

104-118 Design Concepts **2 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. ***Prerequisite: 104-444 Graphic Applications in Marketing or consent of instructor.***

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.

104-140 e-Commerce **3 Credits**
This course provides an overview of electronic commerce. Business models underlying these electronic commerce applications are studied from both an operational and 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. ***Prerequisite: 154-103 Basic Computer Concepts or 103-106 Introduction to MS Office.***

104-144 Graphic Applications in Marketing **3 Credits**
In this project-based course, students learn how to use computer and multimedia technology to plan, design, and execute marketing related communications activities within the business firm. Learners 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. ***Prerequisite: 103-106 Introduction to MS Office, or 154-103 Basic Computer Concepts, or consent of instructor.***

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. ***Prerequisite: 104-160 Marketing Research.***

104-149 Marketing Orientation **1 Credit**
Students receive information to improve their likelihood of success in pursing 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**
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 apply and strengthen concepts and skills learned in the classroom and provide an opportunity to learn operational skills not taught in the classroom. ***Prerequisite: Minimum of 30 credits toward degree in Marketing.***

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. ***Prerequisite: 104-102 Marketing Principles or consent of instructor.***

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. ***Prerequisite: 804-117 Business Math.***

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. ***Prerequisite: 105-135 Professional Profiles or consent of instructor.***

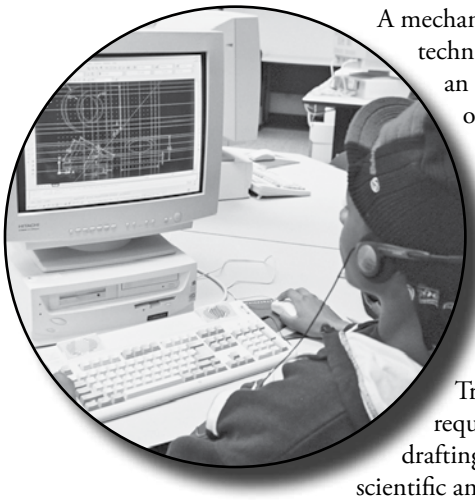
197-107 Professional Profiles **3 Credits**
The mission of the course is to empower students to enhance performance through personal sel-management. The course, which is built around "The Seven Habits of Highly Effective People," provides an opportunity to develop both personally and professionally in effectively dealing with change.

804-117 Business Math **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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Credits	Written Communication	3
801-196 Credits	Oral/Interpersonal Communication	3
804-117 Credits	Business Math	3
809-195 Credits	Economics	3
809-196 Credits	Introduction to Sociology	3
809-198 Credits	Introduction to Psychology	3



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 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 advisors, tool design, machinery design, and other technical level positions as associates with the field of mechanical engineering. Potential for advancement beyond entry-level employment is limited only by the ability and efforts of the individual.

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

- 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 from this program have found employment as:

- Mechanical Design Technician
- Mechanical Drafts Person
- Industrial Engineering Assistant
- Mechanical Design Technician/Supervisor
- Tool & Die Designer
- Tool Designer/Engineer
- Technical Illustrator
- Engineering/Manufacturing Liaison

Career Outlook:

Well-qualified mechanical design technicians should experience good employment opportunities through the year 2005. Employment is expected to increase due to the expected continued growth in the output of technical products. Industrial expansion and complex technological changes such as robotics and automation will create a demand for more technicians. Technicians with computer-assisted design experience are more likely to obtain employment.

	Course Name	Credits	Lec-Lab
Semester 1			
606-123	Fundamentals of Drafting	2	1 - 2
606-127	2-Dimensional CAD	3	2 - 2
623-160	Manufacturing Materials & Processes	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
804-115	College Technical Mathematics 1	5	5 - 0
809-198	Introduction to Psychology	3	3 - 0
Semester 2			
606-124	Orthographic Projection	3	2 - 2
606-125	Drafting Representations	2	1 - 2
606-126	Fasteners and Processes	3	2 - 2
804-116	College Technical Mathematics 2	4	4 - 0
806-151	Technical Science I	3	2 - 2
Semester 3			
606-120	Strength of Materials	3	3 - 0
606-128	3-Dimensional CAD[1]	3	2 - 2
606-129	Kinematics	3	2 - 2
806-152	Technical Science II[1]	3	2 - 2
809-196	Introduction to Sociology	3	3 - 0
	Elective[2]	3	3 - 0
Semester 4			
420-109	Basic Machining	2	1 - 2
606-130	Actuators	3	2 - 2
606-131	Geometric Dimensioning & Tolerancing	2	1 - 2
606-132	Design Applications	2	1 - 2
801-195	Written Communication	3	3 - 0
809-195	Economics	3	3 - 0
	Elective[2]	3	3 - 0
TOTAL CREDITS		***70***	

[1]Course has prerequisites.

[2]Electives may be selected from any associate degree program with the approval of the student program advisor.

Course Descriptions

420-109 Basic Machining **2 Credits**
The basic machining course affords the student the opportunity of hands-on work in a machine shop much the same as they may encounter in the industrial world. This course is invaluable in introducing "order of operations" as well as the "cost of machining" that they will need to evaluate when designing a mechanical component.

606-120 Strength of Materials **3 Credits**
A study is made of the behavior of machine parts and structural members that are in service. Various types of loads and the effects of those loads are examined. Failure modes are examined and calculated to assure proper machine design and function.

606-123 Fundamentals of Drafting **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 & 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 2-Dimensional 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. ***Prerequisite: 606-124 (Orthographic Projection)***

606-128 3-Dimensional 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. ***Prerequisite: 606-127 (Two Dimensional CAD)***

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 & 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.

623-160 Manufacturing Materials & 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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-115	College Technical Mathematics 1	5 Credits
804-116	College Technical Mathematics 2	4 Credits
806-151	Technical Science I	3 Credits
806-152	Technical Science II	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

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

- 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 AAMT formatting guidelines in all written communication.
- Produce quality medical documents.
- Demonstrate the following professional traits while working in a health care 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 coworkers and clients.

Graduates from this program 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

Helpful High School Courses:

- Business English (grammar)
- Keyboarding, Computer skills (word processing, etc.)
- Biology, Science related
- Health related, Medical terminology (would be helpful)
- Accounting, Math

	Course Name	Credits	Lec-Lab
Semester 1			
101-102	Office Accounting	3	2 - 2
106-113	Health Care Insurance	3	2 - 2
106-114	Health Care Records Management	3	2 - 2
106-131	Keyboarding Applications	3	1 - 4
801-195	Written Communication	3	3 - 0
Semester 2			
106-107	Patient Billing[1]	3	2 - 2
106-127	Health Care Documentation	3	1 - 4
106-128	Health Care Office Technologies	3	1 - 4
106-120	Terminology for Transcription/Coding	3	3 - 0
801-196	Oral/Interpersonal Communications	3	3 - 0
Semester 3			
106-103	Medical Transcription I OR	4	1 - 6
106-135	Introduction to Basic Coding[1] AND	1	1 - 0
106-136	Advanced Patient Billing[1]	3	2 - 2
106-118	Pharmacology for Transcription/Coding	2	1 - 2
106-119	Medical Minutes, Proofreading & Editing	2	0 - 4
806-194	Survey of Anatomy & Physiology	3	2 - 2
809-198	Introduction to Psychology	3	3 - 0
	Elective(s)	3	varies
Semester 4			
106-104	Medical Transcription II[1] OR	3	1 - 4
530-102	CPT-4 Coding Introduction[1]	3	2 - 2
106-105	Medical Transcription III[1] OR	3	1 - 4
530-103	ICD-9 Coding Introduction[1]	3	2 - 2
106-109	Medical Office Administration[1]	3	2 - 2
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
	Elective(s)	3	varies
TOTAL CREDITS		***65***	

[1]Course has prerequisite that has to have been successfully completed.

Suggested Electives:

106-124 Supervised Occupational Experience-Medical Office[1] 1 Credit

Medical Office Specialist Certificate (30 cr.)

Students may elect to receive a certificate as a Medical Office Specialist upon satisfactory completion of the first two semesters of the Medical Administrative Specialist Degree Program. Earning this certificate will help prepare you for entry-level office positions in health care, including clerks and medical records assistants.

Course Descriptions

101-102 Office Accounting **3 Credits**
This is a basic course in accounting principles and bookkeeping procedures. Topics include journalizing and posting transactions, preparing the worksheet, adjusting and closing entries, and preparing the financial statements. Emphasis is on the service enterprise and accounting for cash.

106-103 Medical Transcription I **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. This course includes a module on the use of speech recognition software. Touch keyboarding with an accurate speed level of 40 wpm or more, basic computer, and advanced word processing skills are recommended. Students should also have a strong background in grammar, punctuation, medical terminology, and medical document formatting.

106-104 Medical Transcription II **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. ***Prerequisites: 106-103 Medical Transcription I or demonstrated equivalent, 806-194, Survey of Anatomy & Physiology, and 106-118 Pharmacology for Transcription/Coding.***

106-105 Medical Transcription III **3 Credits**
In this course, the student transcribes medically oriented reports, correspondence, and patient progress notes from various medical specialties and foreign-accent dictated reports using audio equipment and a word processing program. Format, grammar, spelling, punctuation, and proofreading are emphasized. Work is also done with medical sound alike words. ***Prerequisite: 106-104 Medical Transcription II or demonstrated equivalent.***

106-107 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. ***Prerequisites: 106-113 Health Care Insurance and touch keyboarding skill of 30 wpm for 3 minutes with 3 or fewer uncorrected errors.***

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 team- work. Units of instruction will also include career development preparation with cover letter, resume, and interview techniques. Student should be in last semester of program to enroll in this course.

106-113 Health Care Insurance **3 Credits**
Students are introduced to the various private and government insurance programs. Students will gain knowledge in understanding the ever-changing role of the health care industry and the need for confidentiality and compliance. A basic introduction of payment systems and coding will be covered.

106-114 Health Care 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 health care field will be addressed. Students will learn to organize files through Windows Explore. Students will also gain knowledge of Microsoft Outlook for sharing files and as a communication tool. A simulation will provide hands-on experience with major filing classification systems in both paper and computer database format. Touch keyboarding and basic computer skills are necessary.

106-118 Pharmacology for Transcription/Coding 2 Credits
This course will provide an introduction to the use of pharmacology terminology and context. The pathophysiology of the human body will be covered in conjunction with treatments used to combat disease. Included is information on medication actions, dosage forms, routes of administration, and drug uses. Emphasis is on the terminology necessary for medical reports used in transcription and coding. ***Prerequisite: 510-117 Medical Terminology or 106-120 Terminology for Transcription/Coding.***

106-119 Medical Minutes, Proofreading & Editing **2 Credits**
Students will 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. Touch keyboarding and basic word processing skills are necessary. Students should also have a strong background in grammar and punctuation.

106-120 Terminology for Transcription/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 health care 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 a work environment. ***Prerequisites: Completion of 48 credits in the Medical Administrative Specialist Program.***

106-127 Health Care Documentation 3 Credits
Health Care Documentation will include a basic introduction to computers, e-mail, and transcription. A heavy emphasis will be placed on medical report types, formats, AAMT rules of style, grammar, and punctuation. Students will also become familiar with a variety of medical reference materials available to them—books and computer sites. Touch keyboarding and basic word processing skills are necessary. Students should also have a strong background in grammar and punctuation. ***Prerequisites: 106-131 Keyboarding Applications (or demonstrated equivalent touch keyboarding skills) and 801-195 Written Communication.***

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. Touch keyboarding and basic word processing skills are necessary. ***Prerequisites: 106-131 Keyboarding Applications (or demonstrated equivalent touch keyboarding skills).***

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. Students can expect to possess keyboarding skills of 40 wpm or higher at the end of this course. Touch keyboarding skill (30 wpm for 3 minutes with 3 or fewer uncorrected errors) is assumed at the beginning of this course. This course is not required for students who can demonstrate this competency on a timed speed/accuracy test and a timed production test.

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. ***Prerequisites: 106-113 Health Care Insurance, 106-107 Patient Billing, and 106-120 Terminology for Transcription/Coding.***

106-136 Advanced Patient Billing 3 Credits
This course will build upon skills learned in Health Care Insurance and Patient billing. Subjects will include pre-certification, release of information, extracting information from the medical record for billing purposes, completing health care insurance forms for both government and private insurance companies using both paper and computer software formats. ***Prerequisites: 106-113 Health Care Insurance, 106-107 Patient Billing 106-120 Terminology for Transcription/Coding, 806-194 Survey of Anatomy & Physiology (or concurrent enrollment).***

530-102 CPT-4 Coding Introduction 3 Credits
Prepares learners to assign CPT codes, supported by medical documentation, with entry level proficiency. Learners apply CPT instructional notations, conventions, rules, and official coding guidelines when assigning CPT codes to case studies and actual medical record documentation. ***Prerequisites: Completion or concurrent enrollment in 106-120 Terminology for Transcription and Coding, 806-194 Survey of Anatomy and Physiology, 106-135 Introduction to Basic Coding, and 106-136 Advanced Patient Billing.***

530-103 ICD-9 Coding Introduction 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. ***Prerequisites: Completion or concurrent enrollment in 106-120 Terminology for Transcription and Coding, 806-194 Survey of Anatomy and Physiology, 106-135 Introduction to Basic Coding, and 106-136 Advanced Patient Billing.***

806-194 Survey of Anatomy & Physiology 3 Credits
This course is designed to assist the Medical Administrative Specialist with the transcription of medical notes, information, and documented application of medical, surgical, and human anatomy terminology, and provide a basic understanding of human physiology.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Credits	Written Communication	3
801-196 Credits	Oral/Interpersonal Communication	3
809-195 Credits	Economics	3
809-196 Credits	Introduction to Sociology	3
809-198 Credits	Introduction to Psychology	3

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.

The Medical Assistant Supervised Externship experience takes place during the last weeks of the final semester of the program. The student must have satisfactorily completed all of his/her program courses prior to this experience and agree to participate without remuneration. During externship, each student will spend two rotations in health care facilities. One rotation will focus on administrative or business skills. The other rotation will focus on clinical and laboratory skills. The externship experience allows students to become familiar with a variety of experiences they might encounter in the work place.

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

- Perform clerical functions
- Perform bookkeeping procedures
- Prepare special accounting entries
- Apply principles of medical asepsis
- Perform specimen collection
- Perform diagnostic testing
- Process insurance claims
- Provide patient care
- Communicate effectively
- Apply legal and ethical concepts
- Instruct patients
- Perform medical office operational functions
- Demonstrate professionalism in a health care setting

Potential Employment Opportunities

Medical Assistant, Medical Laboratory Assistant, Medical Administrative Specialist, Medical Records/Transcriptionist, Office Clinic Receptionist, Medical Clerk.

The American Association of Medical Assistants awards the title of Certified Medical Assistant (CMA) to those who pass a national written examination.

Beginning with the January 2001 Certification Examination, felons are not eligible to sit for the examination without a waiver from the certifying board.

The Blackhawk Technical College Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Curriculum Review Board of the American Association of Medical Assistants' Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs, 35 E. Wacker Dr., Suite 1970, Chicago, Illinois 60601-2208, **Phone: 312•553•9355.**

	Course Name	Credits	Lec-Lab
Semester 1			
501-101	Medical Terminology*	3	3 - 0
501-107	Introduction to Computing for Healthcare	2	2 - 0
509-301	Medical Assistant Administrative Procedures	1	2 - 0
509-302	Human Body in Health Disease	3	6 - 0
509-303	Medical Assistant Lab Procedures I	2	2 - 2
509-304	Medical Assistant Clinical Procedures I	4	4 - 4
801-390	Communications for Health Professions	2	4 - 0

Semester 2 courses are conducted during the first 14 weeks of the semester. The last 4 weeks of the semester focuses on 160 hours of externship participation.

Semester 2			
509-305	Medical Assistant Lab Procedures 2	2	2 - 2
509-306	Medical Assistant Clinical Procedures 2	3	4 - 2
509-307	Medical Office Insurance and Finance	2	4 - 0
509-308	Pharmacology for Allied Health	2	4 - 0
509-309	Medical Law, Ethics & Professionalism	1	2 - 0
809-198	Introduction to Psychology	3	3 - 0
509-310	Medical Assistant Externship (160 total hours)	3	
TOTAL CREDITS		***33***	

Program Requirements:

Complete the COMPASS test with scores of 40 in math, 80 in reading, and 70 in writing, OR receive an ACT score of 16 or higher in the three areas. Students who do not meet the scores above must remediate and retest.

Program Pre-Requisite: Keyboarding 30 wpm

Program Co-Requisite: CPR and First Aid for Health Professionals (must be completed prior to Medical Assistant Externship)

The standard for promotion in the Medical Assistant program requires a "C-" in all courses. Satisfactory completion of all on-campus courses and a physical examination are required before externship.

Note: A Caregiver Background Check is required.

Due to the rigor of the Medical Assistant Program, students may wish to adjust their schedules for a lighter course load over 3 or 4 semesters. Students may also elect to talk to their counselors regarding taking associate degree courses that may substitute for the Technical Diploma courses. However, all students must complete their final year from August to May to include advanced course work AND externship.

Course Descriptions

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 systemic and surgical terminology.

501-107 Introduction to Computing for Healthcare 2 Credits
Provides an introduction to basic computer functions and applications. Students are introduced to the hardware and software components of modern computer systems and the application of computers in the workplace. Emphasizes the use of common software packages, operating systems, file management, word processing, spreadsheet, internet, and electronic mail.

509-301 Medical Assistant Administrative Procedures 1 Credit
Introduces Medical Assistant students to office management and business administration in the medical office. Students learn to schedule appointments, perform filing, record keeping, telephone and reception duties, communicate effectively with patients and other medical office staff, and keep an inventory of supplies. Students apply introductory medical coding skills and managed care terminology. ***Prerequisite/Corequisite: Computer course; declared Medical Assistant Program.***

509-302 Human Body in Health and 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. ***Prerequisite/Corequisite: Medical Terminology.***

509-303 Medical Assistant Laboratory Procedures 1 2 Credits
Introduces Medical Assistant students to laboratory procedures commonly performed by Medical Assistants in a medical office setting. Students perform routine laboratory procedures commonly performed in the ambulatory care setting under the supervision of a physician. Students follow laboratory safety requirements and federal regulations while performing specimen collection and processing, microbiology and urinalysis testing. ***Prerequisite: Admission to Medical Assistant Program.***

509-304 Medical Assistant Clinical 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. ***Prerequisite/ Corequisite: Medical Terminology; Human Body in Health and Disease. Prerequisite: Admission to Medical Assistant Program.***

509-305 Medical Assistant Laboratory 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. ***Prerequisite: Medical Assistant Laboratory Procedures 1.***

509-306 Medical Assistant Clinical 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. ***Prerequisites: Medical Assistant Clinical Procedures 1; Medical Assistant Laboratory Procedures 1; Medical Terminology; Human Body in Health and Disease.***

509-307 Medical 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. ***Prerequisite/Corequisite: Medical Terminology; Human Body in Health and Disease or equivalent; Computer course.***

509-308 Pharmacology 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. ***Prerequisite/Corequisite: Medical Terminology; Human Body in Health and Disease.***

509-309 Medical Law, Ethics and Professionalism 1 Credit
Prepares students to display professionalism and perform within ethical and legal boundaries in the health care setting. Students maintain confidentiality, examine legal aspects of the medical record, perform risk management procedures, and examine legal and bioethical issues.

509-310 Medical Assistant Externship 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. ***Prerequisite: Medical Assistant Administrative Procedures; Human Body in Health and Disease; Medical Terminology; Medical Assistant Laboratory Procedures 1; Medical Assistant Clinical Procedures 1; Computer course; Communications course; current Health Care Provider CPR and First Aid; approval of program faculty; compliance with Wisconsin Caregiver Law; Program health requirements are met. Prerequisite/Corequisite: Medical Assistant Clinical Procedures 2; Medical Assistant Laboratory Procedures 2; Medical Office Insurance and Finance; Medical Law and Ethics; Introduction to Psychology; successful completion or standing in all other program courses.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-390	Communications for Health Professions	2 Credits
809-198	Introduction to Psychology	3 Credits

The Medical Coding Specialist Program prepares individuals 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, insurance companies, governmental agencies and computer software companies.

The medical coding specialist reviews medical documentation provided by physicians and other health care providers and translates this into numeric codes. 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.

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

- Assign diagnostic and procedure codes using ICD coding systems
- Assign diagnostic and procedure codes using CPT coding systems
- Adhere to Security/Privacy/Confidentiality policies
- Use computers to process information
- Support data collection and reimbursement system.
- Communicate in a professional manner
- Model professional behaviors, ethics and appearance

Admission Requirements

- High school graduate or equivalent
- Completion of Entry Compass Test with acceptable scores
- Basic computer knowledge – word processing skills preferred.
- Related work experience with health care or medical records preferred.

Potential Employment Opportunities

- Medical Coding Specialist
- Coding Specialist
- Coding Analyst
- Claims Analyst
- Inpatient Coder
- Outpatient Coder

	Course Name	Credits	Lec-Lab
Courses Required			
501-101	Medical Terminology	3	3 - 0
530-181	Intro to the Health Record	1	1 - 0
530-182	Human Diseases for the Health Professions	3	3 - 0
530-183	ICD-9-CM Coding	3	2 - 2
530-184	CPT Coding	3	2 - 2
530-185	Health Care Reimbursement	2	1 - 2
806-194	Survey of Anatomy & Physiology OR	3	4 - 0
806-177	General Anatomy & Physiology	4	3 - 2
TOTAL CREDITS		***18 or 19***	

Course Descriptions

501-101 Medical Terminology **3 Credits**
A comprehensive study of medical vocabulary. The student learns the pronunciation, spelling, definition and correct usage of medical terms

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 Diseases for the Health Professions **3 Credits**
Designed to give learners an insight into common pathophysiology (disease process) as related to the body/organ systems. Emphasis is placed on understanding the etiology (cause), signs and symptoms, diagnostic tests, and treatment of each disease. ***Prerequisite: completion of or concurrent enrollment in Survey of Anatomy & Physiology (806-194) and Medical Terminology (501-101).***

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. ***Prerequisite: Completion of or concurrent enrollment in Intro to Health Records (530-181) Survey of Anatomy & Physiology (806-194) Human Diseases for the Health Professions (530-182) and Medical Terminology (501-101).***

530-184 CPT 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. ***Prerequisite: Completion of or concurrent enrollment in Intro to Health Records (530-181) Survey of Anatomy & Physiology (806-194) Human Diseases for the Health Professions (530-182) and Medical Terminology (501-101).***

530-185 Health Care 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. ***Prerequisite: Completion of or concurrent enrollment in ICD-9 (530-183) and CPT (530-184).***

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 program is accredited by the National League for Nursing Accrediting Commission (NLNAC). For more information, contact NLNAC at 61 Broadway-33rd Floor, New York, NY, 10006, or 1-800-669-1656, or on the website at www.nlnac.org

The Associate Degree Nursing program consists of a minimum of four semesters. Completion of the program may take longer depending upon the number of students waiting to enter clinical nursing classes. Nursing courses include classroom, laboratory, and clinical experiences in a variety of settings. A grade of "C-" or higher must be received in all program required courses.

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

- Adhere to professional standards of practice within legal, ethical, and regulatory frameworks of the registered nurse.
- Use effective communication skills.
- Assess health of individuals, families, and groups within the context of the community.
- Make clinical decisions to assure safe and accurate nursing care.
- Provide safe caring interventions with diverse populations.
- Use teaching and learning processes to promote and restore health.
- Collaborate with others to respond to the needs of individuals, families, and groups across the health-illness continuum.
- Manage care to facilitate continuity within and across health care settings.

Potential Employment Opportunities

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.

	Course Name	Credits	Lec-Lab
Semester 1-Technical Courses			
543-101	Nursing Fundamentals	2	3 - 0
543-102	Nursing: Skills	3	2 - 4
543-103	Nursing Pharmacology	2	2 - 0
543-104	Nursing: Introduction to Clinical Practice	2	0 - 8
General Education & Technical Support Courses			
806-177	General Anatomy & Physiology*	4	3 - 2
809-188	Developmental Psychology*	3	3 - 0
801-195	Written Communication*	3	3 - 0
Note: Successful completion of all first semester courses is prerequisite to any second semester course.			
Semester 2-Technical Courses			
543-105	Nursing Health Alterations	3	3 - 0
543-106	Nursing Health Promotion	3	3 - 0
543-107	Nursing: Clinical Care Across the Lifespan	2	0 - 12
543-108	Nursing: Introduction to Clinical Care Management	2	0 - 12
General Education & Technical Support Courses			
806-179	Advanced Anatomy and Physiology*	4	3 - 2
801-196	Oral/Interpersonal Communication*	3	3 - 0
Note: Successful completion of all first year courses is prerequisite to any third semester course.			
Semester 3-Technical Courses			
543-109	Nursing: Complex Health Alterations I	2	4 - 0
543-110	Nursing: Mental Health & Community Concepts	2	4 - 0
543-111	Nursing: Intermediate Clinical Practice	3	0 - 9
543-112	Nursing: Advanced Skills	1	0 - 2
General Education & Technical Support Courses			
806-197	Microbiology	4	3 - 2
809-198	Introduction to Psychology	3	3 - 0
	Elective	3	
Note: Successful completion of all third semester courses is prerequisite to any fourth semester course.			
Semester 4-Technical Courses			
543-113	Nursing: Complex Health Alterations II	3	6 - 0
543-114	Nursing: Management & Professional Concepts	2	4 - 0
543-115	Nursing: Advanced Clinical Practice	3	0 - 18
543-116	Nursing: Clinical Transition	2	0 - 13
General Education & Technical Support Courses			
806-196	Sociology	3	3 - 0
	Elective	3	
TOTAL CREDITS		***70***	

- Completion of Nursing Assistant course is required before entering nursing classes.

* General education courses must be completed in semester listed or prior

ADN Application Process (Pre-Clinical ADN Nursing)

A. Apply to enroll at BTC. Requirements:

1. High school diploma or equivalent
2. Successful completion of one year of high school chemistry with a grade of "C-" or higher OR successful completion of one semester of college chemistry with a grade of "C-" or higher OR pass standardized science assessment exam (not currently available at Blackhawk Technical College)
3. Completion of COMPASS Testing with 60 in math, 85 in reading, 78 in writing OR ASSET scores of 44 or above in all 3 areas OR ACT scores of 18 in math, 19 in reading, 18 in writing, or SAT composite score of 890.

   Students who do not meet the scores above must remediate & retest.
4. Complete BTC application and pay $30 application fee

B. Apply to enter clinical nursing classes:

1. Complete application to clinicals. Obtain and return to Nursing Coordinator.
2. Acquire CPR Certification–Provider Course *(every 2 years).*
3. Obtain physical exam with immunization record within 6 months prior to start of clinical. TB skin test must be done within 3 months prior to start of clinical.
4. Complete orientation session.
5. Clear Caregiver Background Check.
6. Obtain medical insurance coverage.
7. Complete Release of Responsibility form.
8. Submit copy of Nursing Assistant course completion certificate or certification card. Course must be one approved by the WI Dept. of Health & Family Services.

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. 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. ***Prerequisite: Admission to nursing program. Pre/Corequisite: General Anatomy and Physiology***

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. ***Prerequisite: Admission to nursing program or current LPN license. Pre/Corequisite: General Anatomy and Physiology***

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. ***Prerequisite: Admission to nursing program. Pre/Corequisite: General Anatomy and Physiology.***

543-104 Nursing: Introduction to 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. ***Pre/Corequisites: Nursing Fundamentals; Nursing: Skills; Nursing Pharmacology***

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. ***Prerequisites: Nursing Fundamentals; Nursing: Skills; Nursing Pharmacology; Nursing: Introduction to Clinical Practice; General Anatomy and Physiology***

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. ***Prerequisites: Nursing Fundamentals; Nursing: Skills; Nursing Pharmacology; Nursing: Introduction to Clinical Practice; Developmental Psychology; General Anatomy and Physiology.***

543-107 Nursing: Clinical Care Across the 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. ***Prerequisites: Nursing Fundamentals; Nursing: Skills; Nursing Pharmacology; Nursing: Introduction to Clinical Practice; General Anatomy and Physiology. Pre/Corequisite: Nursing Health Promotion.***

543-108 Nursing: Introduction to Clinical Care Management 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. ***Prerequisites: Nursing Fundamentals; Nursing: Skills; Nursing Pharmacology; Nursing: Introduction to Clinical Practice; General Anatomy and Physiology Pre/Corequisite: Nursing Health Alterations.***

543-109 Nursing Complex Health Alterations I 2 Credits
Complex Health Alterations I prepares the learner to expand knowledge from previous courses in caring for clients with alterations in musculoskeletal, cardiovascular, respiratory, endocrine, and hematologic systems as well as clients with fluid/electrolyte and acid-base imbalance, and alterations in comfort. ***Prerequisites: Nursing Health Alterations; Nursing Health Promotion; Nursing: Clinical Care Across the Lifespan; Nursing: Introduction to Clinical Care Management; Advanced Anatomy and Physiology. Pre/Corequisite: Microbiology.***

543-110 Nursing: Mental Health and Community Concepts 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. ***Prerequisites: Nursing Health Alterations; Nursing Health Promotion; Nursing: Clinical Care Across the Lifespan; Nursing: Introduction to Clinical Care Management; Advanced Anatomy and Physiology Pre/Corequisite: Introduction to Psychology.***

543-111 Nursing Intermediate Clinical 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 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. ***Pre/Corequisites: Nursing Advanced Skills; Nursing Complex Health Alterations I; Nursing Mental Health and Community Concepts.***

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. ***Prerequisites: Nursing Health Alterations; Nursing Health Promotion; Nursing: Clinical Care Across the Lifespan; Nursing: Introduction to Clinical Care Management; Advanced Anatomy and Physiology.***

543-113 Nursing Complex Health Alterations II 3 Credits
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. ***Prerequisites: Nursing Complex Health Alterations I; Nursing Advanced Skills; Nursing: Mental Health and Community Concepts; Nursing: Intermediate Clinical Practice; Microbiology.***

543-114 Nursing Management & Professional 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. ***Prerequisites: Nursing Complex Health Alterations I; Nursing Advanced Skills; Nursing: Mental Health and Community Concepts; Nursing: Intermediate Clinical Practice.***

543-115 Nursing Advanced 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. ***Pre/Corequisite: Nursing Complex Health Alterations II.***

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. ***Pre/Corequisites: Nursing Advanced Clinical Practice; Nursing Management Concepts; Nursing Complex Health Alterations II.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195 Credits	Written Communication	3
801-196 Credits	Oral/Interpersonal Communication	3
806-177 Credits	General Anatomy & Physiology	4
806-179 Credits	Advanced Anatomy & Physiology	4
806-197 Credits	Microbiology	4
809-188 Credits	Developmental Psychology	3
809-196 Credits	Introduction to Sociology	3
809-198 Credits	Introduction to Psychology	3

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.

Blackhawk Technical College has two Nursing Assistant Courses.

SKILLED NURSING ASSISTANT
180-Hour Course (5 Credits)—543-300

Some basic tasks and procedures performed by skilled nursing assistants are bed-making techniques, personal bedside care of the patient, measuring intake and output, caring for patients in isolation, taking temperature, pulse, respiration and blood pressures, serving and feeding patients, specimen collection, and pre-op and post-op patient care.

The course contains 90 hours of classroom instruction and laboratory experience and 90 hours of clinical experience working with patients under the supervision of the instructor.

A textbook, handout book and videos are used in theory. A laboratory room is used for practice. The written exams and return demonstrations will be used for evaluation.

A complete physical examination is required.

Applicants must score at the 8th grade level in math and reading on the TABE prior to being enrolled in the program. Those who do not score at the 8th grade level in these areas must remediate and retest.

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

- Report Observations
- Demonstrate personal care of the patient
- Demonstrate lifting and moving patients
- Interact with patients and families
- Measure and record vital signs
- Feed patients who are unable to feed themselves
- Measure and record intake and output
- Apply rules of institutional safety

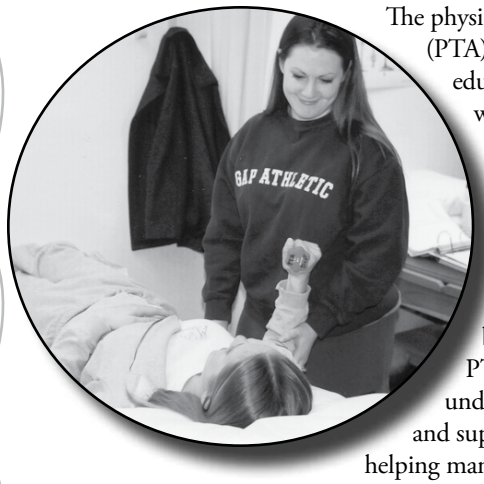
The curriculum will cover the following areas:

- Introduction to Being a Nursing Assistant
- Communication & the Patient (Client Rights)
- Human Anatomy & Physiology
- Infection Control
- Your Working Environment
- Lifting, Moving & Transporting Patients
- Personal Care of the Patient
- Nutrition & Food Service
- Intake & Output
- Specimen Collection
- Special Treatments
- Measuring & Recording Vital Signs
- Patient Admission
- Transfer & Discharge
- Body Position, Tubes & Tubing
- Warm & Cold Applications
- Pre-Operative & Post-Operative Care (Acute Illnesses)
- Extended Care (Chronic Illnesses and Dementias)
- Care of the Dying
- Introduction to Medical Terms
- Safety & Emergency Care
- The Geriatric Patient
- Rehabilitation

SKILLED NURSING ASSISTANT COMPLETION
90-Hour Course (2 Credits)—543-300

This course is designed for a Nursing Assistant who is on the State of Wisconsin Nursing Assistant Directory, but has not had the theory or the clinical experience in Acute Care (Hospital clinicals). It is the last 90 hours of the 180 hour Skilled Nursing Assistant Course.

Criminal Background Checks are required for anyone entering Health Occupations courses.



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, sprains/strains and fractures, arthritis, burns, amputations, stroke, multiple sclerosis, birth defects, 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.

According to American Physical Therapy Association member surveys, the median income for entry-level and experienced PTA's is $30,000+. PTAs who were employed in the southern and western regions of the nation earned the highest median salary. Blackhawk Technical College (BTC) graduate surveys indicate that the starting wage for entry-level PTA graduates is $32,500+ per year and rising. Wages for experienced PTAs can exceed $20.00 per hour.

The need for PTAs continues to grow. The US Dept. of Labor, Bureau of Labor Statistics states "Employment of physical therapist assistants is expected to grow much faster than the average through the year 2008." Over the long run the demand for PTAs will continue to rise due to the number of individuals with disabilities, the rapid growing elderly population, and the large baby boom generation entering prime age for needing increased health care. America's CAREERInfoNET lists PTA as one of the 25 fastest growing occupations for the 1998-2008 time period.

Physical Therapist Assistant Program
The two-year, afternoon, early evening program begins in August each year and continues for five semesters. The regular fall and spring semesters are 16 weeks, and the summers are 6 weeks. Graduates receive an Associate of Applied Science Degree, which are conferred in May. The program employs six faculty members who are all practicing clinicians; three PT's and three PTAs. The total cost of tuition and fees for five semesters is approx. $5250. Average semester textbook and supply cost is $200. State licensure is required for the PTA in Wisconsin. Blackhawk graduates traditionally score higher on the national examination as compared to students testing from all other accredited schools. A Caregiver Background Check is required for the clinical portion of the program. Persons with previous felony convictions are not eligible for licensure or credentialing. The PTA program is currently accredited by the Commission on Accreditation in Physical Therapy Education.

Program Mission
The mission of the BTC Associate Degree PTA program is to prepare qualified PTA's, as defined in the Wisconsin Physical Therapy Practice Act and in accordance with the standards of the American Physical Therapy Association, for employment in the healthcare community.

Program Goal
The goal of the BTC Associate Degree PTA program is to fulfill the program mission through the achievement of the program outcomes.

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

- Demonstrate effective communication skills with patients, families and the health care team
- Exhibit professional behaviors and conduct that reflect physical therapy practice standards, demonstrating sensitivity to individual and cultural differences
- Demonstrates critical thinking skills to implement and adjust a physical therapy plan of care safely; and appropriately reports patient status changes to the physical therapist
- Teach patients, families, and other health care providers to perform physical therapy interventions using relevant and effective teaching methods
- Perform and document physical therapy data collection safely and efficiently under the direction and supervision of a physical therapist
- Perform and document physical therapy interventions safely and efficiently under the direction and supervision of a physical therapist
- Demonstrate an awareness of administrative, operational, and fiscal components when providing physical therapy service in a variety of settings
- Demonstrate and understanding of health care systems, interdisciplinary teams, psychosocial effect of disability and professional responsibility
- Demonstrate a commitment to professional growth and life long learning
- Complete graduation and credentialing requirements, obtain employment in community healthcare facilities and express high satisfaction with learned physical therapy skills

Clinical Experiences
There are three clinical courses required in the PTA program. The first course is in the spring, or second semester of the first year, and is one day per week. The second course is in the fall, or first semester of the second year, and is two days per week. The final experience is in the second semester of the second year and is a full-time experience for eight weeks. Clinical education sites are located within a 90-mile radius of the school. These clinical experiences encompass a variety of settings. The program aims to expose each student to as many physical therapy services as possible, providing a well-rounded clinical education.

Admissions & Enrollment
Applications are submitted to the Office of Admissions. Students will be programs ready after submitting the following: completion of application and processing fee; evidence of high school graduation, GED or HSED; transcripts reflecting high school or college biology and algebra with grade "C" or above; and COMPASS with scores of 49 in math, 82 in reading, and 75 in writing or ACT composite of 18 taken within past three years or SAT of 900 in math and reading. Final admission into the PTA program requires a certified physical examination, updated immunizations, current CPR certification, and a clean Caregiver Background Check. The PTA program generally admits 22-24 first year students each fall. Admissions include four students from Madison Area Technical College, 4 from Waukesha Technical College and the remainder from Blackhawk Technical College.

	Course Name	Credits	Lec-Lab
Semester 1			
524-110	Physical Therapy Interventions I[1]	7	4 - 6
801-195	Written Communication	3	3 - 0
806-131	Anatomy & Physiology	4	3 - 2
806-140	General Physics	3	2 - 2
Semester 2			
524-115	Physical Therapy Clinical Practice I[1]	2	
524-120	Physical Therapy Interventions II[1]	6	4 - 4
801-196	Oral/Interpersonal Communication	3	3 - 0
806-108	Applied Anatomy & Physiology	5	3 - 4
Summer			
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
Semester 3			
524-125	Physical Therapy Clinical Practice II[1]	4	
524-130	Physical Therapy Interventions III[1]	7	4 - 6
809-198	Introduction to Psychology	3	3 - 0
	Elective	3	
Semester 4			
524-135	Physical Therapy Clinical Practice III[1] *(2nd 9 Wks.)*	5	
524-140	Physical Therapy Life Span Applications[1] *(1st 9 Wks.)*	3	3 - 0
524-145	Physical Therapy Health Care Systems[1] *(1st 9 Wks.)*	2	2 - 0
524-150	Physical Therapy Administration[1] *(1st 9 Wks.)*	1	1 - 0
	Elective	3	
TOTAL CREDITS		***70***	

Suggested Electives:

510-117	Medical Terminology	3
809-188	Developmental Psychology	3
154-103	Basic Computer Concepts	3

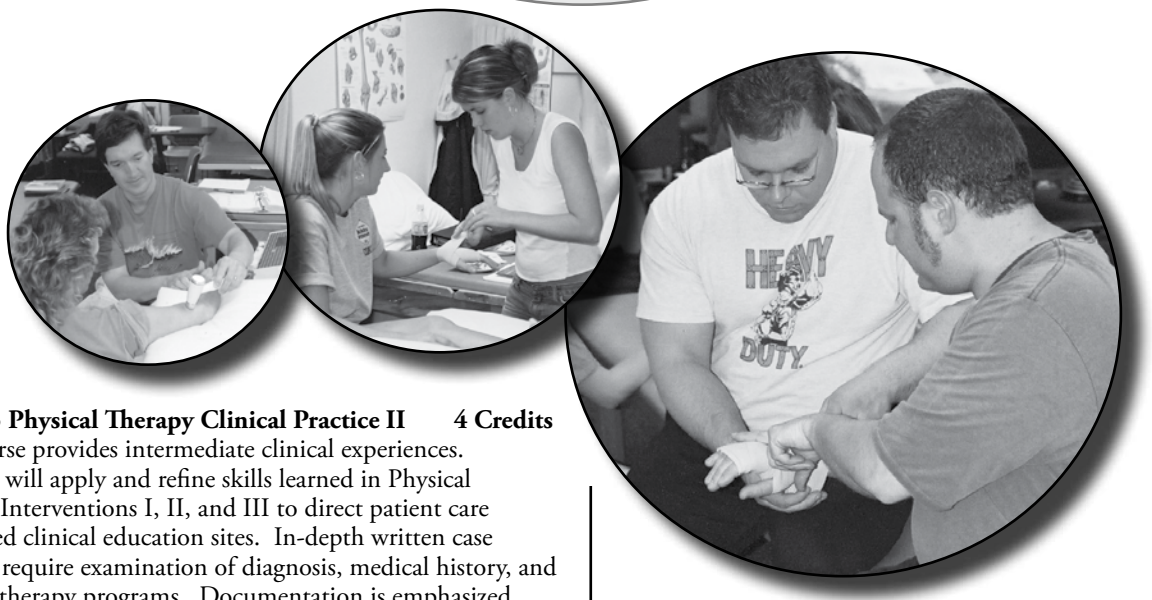
[1]Program Admission Prerequisite

Course Descriptions

524-110 Physical Therapy 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. ***Pre- or Corequisites: Admission to the PTA Program; 801-195, 806-140, 806-131.***

524-115 Physical Therapy 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. ***Prerequisites: Admission to the PTA Program; 524-110 Corequisites: 524-120, 806-108, 809-196.***

524-120 Physical Therapy 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. ***Prerequisites: Admission to the PTA Program; 524-110. Corequisites: 524-115, 806-108, 809-196.***



524-125 Physical Therapy Clinical Practice II 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. ***Prerequisites: Admission to the PTA Program; 524-120, 524-115, 809-195, 809-197. Corequisite: 524-130, 809-198.***

524-130 Physical Therapy 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. ***Prerequisites: Admission to the PTA Program; 524-120, 524-115, 809-195, 809-197. Corequisites: 524-125, 809-198.***

524-135 Physical Therapy 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. ***Prerequisites: Admission to the PTA Program; Satisfactory completion of all required courses.***

524-140 Physical Therapy Life Span Applications 3 Credits
This course covers normal growth and development in all areas throughout the life span. Selected neuromusculoskeletal conditions commonly treated in physical therapy are described as they apply to infants, children, adolescents, young adults, middle adults, and older adults. Students focus on developing specific treatment interventions for these conditions based on established goals and treatment plans. ***Prerequisites: Admission to the PTA Program; 524-125, 524-130. Corequisites: 524-145, 524-150, 809-197.***

524-145 Physical Therapy Health Care Systems 2 Credits
This course focuses on the role of the Physical Therapist Assistant as a facilitator, assisting the patient to achieve optimum health, mobility, and independence. Principles of social responsibility as related to physical therapy and the Physical Therapist Assistant as an interdisciplinary team member are discussed. Advanced interpersonal communication, healthcare interviewing, the teaching/learning process, and patient adherence are emphasized. Discharge planning includes self-care/home management, community/work reintegration and wheelchair prescription. ***Prerequisites: Admission to the PTA Program; 524-130, 524-125. Corequisites: 524-140, 524-150, 809-197.***

524-150 Physical Therapy Administration 1 Credits
This course discusses physical therapy departmental administration, organization, maintenance, staff supervision, and professional development. The role and utilization of the Physical Therapist Assistant with emphasis on legal, ethical, and practice perspectives. Explores current issues and trends of the profession with related impact on physical therapy services Examines various types of healthcare financing, documentation requirements, quality management, and outcome measurement. Basic job seeking skills are also included. ***Prerequisites: Admission to the PTA Program; 524-125, 524-130. Corequisites: 524-140, 524-145, 809-197.***

806-108 Applied Anatomy & Physiology PTA 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. ***Prerequisites: 806-131, 806-140.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
806-108	Applied Anatomy & Physiology	3 Credits
806-131	Anatomy & Physiology	3 Credits
806-140	General Physics	3 Credits
809-120	Developmental Psychology	3 Credits
809-195	Economics	3 Credits
809-197	Contemporary American Society	3 Credits
809-198	Introduction to Psychology	3 Credits

Radiography describes the process of producing diagnostic (x-ray) radiographic images of the human body.

Part art, part science, the trained radiographer must be knowledgeable and proficient in human anatomy, radiation safety and physics, and radiographic positioning.

Because of the nature of the work, the radiographer must be an individual capable of working with the acutely and chronically ill and injured, as well as patients of every age and background. Patience, compassion, and empathy are essential requirements of any person working in radiography.

The Blackhawk Technical College Associate Degree Radiography Program is a two-year Associate Degree program requiring considerable commitment on the part of the student. Learning is performed in the classroom, laboratory, and in the clinical environment at any number of healthcare facilities affiliated with the radiography program.

A wide range of placement opportunities allows the graduate radiographer many options with respect to full or part-time employment, as well as opportunities in hospitals, clinics, private physician offices, or mobile imaging centers

Program Mission

To prepare the student to practice diagnostic medical radiography.

Program Goal

To fulfill the program mission through the achievement of the following Program Outcomes.

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

- possess the knowledge and academic skills necessary to practice radiography in the clinical setting as well as successfully write the ARRT certification exam in Radiography. **Academic Outcome.**
- practice general diagnostic radiography in any clinical setting. **Clinical Education Outcome.**
- upon completion of the Associate Degree Radiography Program, learners will successfully complete the Certification examination in radiography prepared by the American Registry of Radiologic Technologists (ARRT) within ARRT eligibility requirement at a rate that meets or exceeds National and State averages. **Graduate Certification Outcome.**
- complete the program at a rate of 75% of all students starting the radiography curriculum within 1.5 times of the normal program completion times. **Student Retention/ Attrition Outcome.**
- practice radiation protection and safety techniques in a way that minimizes radiation exposure to self, patients, and all others. **Radiation Safety Outcome.**
- provide patient care and comfort as well as recognize emergency patient conditions and initiate emergency life saving first aid and basic life support. **Patient Care and Safety Outcome.**
- communicate effectively and professionally in the medical environment and function as a team member in the radiology department. **Patient Interaction Outcome.**
- possess the critical thinking and problem solving skills necessary to act appropriately in non-routine and emergency situations. **Critical Thinking and Problem Solving Outcome.**
- participate in professional activities and continuing education, demonstrate an understanding of advanced imaging modalities, and utilize insights gained in general education courses to promote continued professional and personal growth. **Professional Development Outcome.**
- be placed in the workforce as a diagnostic radiographer or continue the educational process in a specialty area of Medical Imaging. **Graduate Placement Outcome.**
- be satisfied with the educational experience with respect to both academic and clinical abilities. **Graduate Satisfaction Outcome.**
- satisfy the needs of employers with respect to content knowledge, affective behaviors, and clinical radiographic skills. Employer Satisfaction Outcome.

The methodology used to evaluate and assess the radiography outcomes is provided in detail to students during the New Student Orientation Session, and is available to applicants of the program upon request.

Prerequisites for program admission

- High school biology or college equivalent ("C" or above)
- High school algebra or college equivalent ("C" or above)
- High school chemistry or physics or college equivalent ("C" or above)
- ACT=composite score of 18 (taken within the past 3 years) or SAT = 900 or above for math and reading scores or COMPASS test scores of: Writing: 75, Reading: 82, Numerical: 49. The COMPASS test is administered at BTC.

Program Prerequisite Requirements

- Participate in clinical observation tour set by Radiography Coordinator
- Attend program orientation session
- Complete physical examination and program health requirements

A Caregiver Background Check is required for the clinical portion of this program. All Radiography Program Core Courses (prefix 526) require program entry for enrollment. Please contact the Student Services department to ensure "program ready" status.

	Course Name	Credits	Lec-Lab
Program Courses			
526-101	Introduction to Radiography	3	3 - 0
526-102	Radiographic Procedures I	4	3 - 2
526-103	Principles of Radiographic Exposure	3	3 - 0
526-104	Radiation Protection and Biology	3	3 - 0
526-105	Applied Clinical Radiography I	2	0 - 16
526-106	Radiographic Procedures II	4	3 - 2
526-108	Applied Clinical Radiography II	2	0 - 16
526-109	Applied Clinical Radiography III	1	0 - 24
526-110	Applied Clinical Radiography IV	2	0 - 24
526-112	Applied Clinical Radiography V	2	0 - 24
526-115	Methods of Patient Care	2	2 - 0
526-116	Special Imaging	3	3 - 0
526-117	Principles of Radiographic Pathology	2	2 - 0
526-118	Radiation Physics	3	3 - 0
526-120	Radiographic Film Evaluation	2	2 - 0
Technical Support Courses			
526-121	Computerized Radiology Systems	3	3 - 0
806-177	General Anatomy and Physiology	4	3 - 2
806-179	Advanced Anatomy and Physiology	4	3 - 2
General Education Courses			
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communication	3	3 - 0
809-193	Introduction to Psychology	3	3 - 0
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
Suggested Electives*			
526-113	Registry Review	3	3 - 0
526-114	Intro. to Cross-Sectional Anatomy	3	3 - 0

*Any six (6) credits of Associate Degree level or higher coursework will meet the elective requirement for graduation.
Curriculum revisions are in progress among all Radiography programs in the Wisconsin Technical College System. New

TOTAL CREDITS ***70***

Electives may be any associate degree level course totaling 6 credits.
[1]Suggested Electives: 526-113 Registry Review (3 credits)
526-114 Introduction to Cross-Sectional Anatomy (3 credits)

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. ***Prerequisites: Admission to the Radiography Program. Corequisites: 526-115.***

526-102 Radiographic Procedures I **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 extremity\ies, 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. ***Prerequisites: 526-101, 526-115. Corequisites: 526-104, 526-105.***

526-103 Principles of 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. ***Prerequisites: 526-102, 526-104, and 526-105. Corequisites: 526-106, 526-108.***

526-104 Radiation Protection and Biology **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. ***Prerequisites: 526-101, 526-115. Corequisites: 526-102, 526-105.***

526-105 Applied Clinical 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. ***Prerequisite: 526-101, 526-115. Corequisites: 526-102, 526-104.***

526-106 Radiographic Procedures II **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. ***Prerequisites: 526-102, 526-104, 526-105. Corequisites: 526-103, 526-108.***

526-108 Applied Clinical 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. ***Prerequisites: 526-102, 526-104, 526-105. Corequisites: 526-103, 526-106.***

526-109 Applied Clinical 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. ***Prerequisites: 526-103, 526-106, 526-108. Corequisite: 526-120.***

526-110 Applied Clinical 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. ***Prerequisites: 526-109, 526-120. Corequisite: 526-118, 526-116.***

526-112 Applied Clinical Radiography V2 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. ***Prerequisites: 526-110, 526-116, 526-118. Corequisite: 526-117, 526-121.***

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. (Suggested elective). ***Prerequisites: 526-110, 526-116, 526-118, or permission of the Radiography Coordinator. Corequisites: 526-112, 526-117, or permission of the Radiography Coordinator.***

526-114 Introduction to Cross-Sectional Anatomy* 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. (Suggested Elective) ***Prerequisites: 806-177, 806-179, (or permission of Radiography Coordinator). Corequisites: 526-110, 526-116, 526-118 (or permission of Radiography Coordinator).***

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. ***Prerequisite: Admission to the Radiography Program. Corequisite: 526-101.***

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. ***Prerequisites: 526-120, 526-109. Corequisite: 526-118, 526-110.***

526-117 Principles of Radiographic Pathology 2 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. ***Prerequisites: 526-110, 526-116, 526-118. Corequisite: 526-112.***

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 electro-magnetism, x-ray tubes, x-ray machine circuitry, and specialized medical imaging equipment. ***Prerequisites: 526-109, 526-120. Corequisites: 526-110, 526-116.***

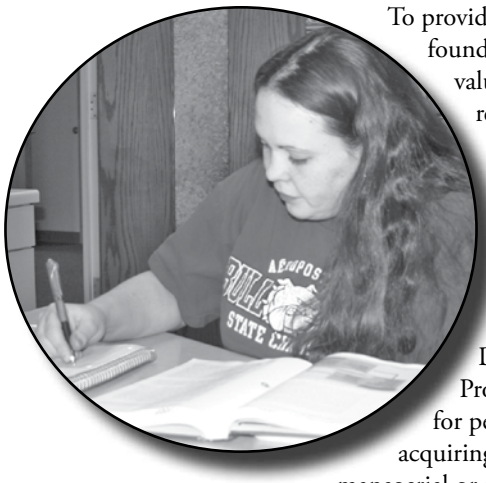
526-120 Radiographic Film Evaluation 2 Credits
In this course, the student learns to critically evaluate radiographic images. A Systematic approach to radiographic evaluation that includes minimum standards for acceptable image quality, as well as thorough critique of photographic and geometric properties, 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. ***Prerequisites: 526-103, 526-106, 526-108. Corequisites: 526-109.***

526-121 Computerized Radiology 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. ***Prerequisites: 526-116, 526-118, 526-110. Corequisites: 526-117, 526-112.***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
806-177	General Anatomy & Physiology	4 Credits
806-179	Advanced Anatomy and Physiology	4 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits



To provide a learning foundation that will be valuable, flexible, and relevant to meet ever changing supervisory and management needs in the business community.

The Management Development Program is designed for people interested in acquiring or improving managerial or supervisory skills. Whether your goal is to be more efficient and effective in your present job or to move in a new career direction, the Management Development Program will give you competitive skills for the future, using the state-of-the-art management tools: Project Management; Leadership; Quality; Managing Diversity and Change; Safety Issues; Problem-Solving; Supervision; and Legal Issues.

The Management Development Program is intended specifically for working adults whose knowledge and expertise are an important part of the learning process. All classes are designed for collaborative learning. Knowledge is immediately applicable to your work environment.

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

- Perform the role and responsibility of an effective supervisor.
- Apply the principles of problem solving and working effectively in teams.
- Demonstrate effective communications techniques relating to interviewing, training, selecting, and evaluating employee performance.
- Demonstrate effective leadership skills.
- Assess organizational structures and behaviors, and focus on the changes and challenges of the organization.
- Analyze and apply the fundamentals of Total Quality Management.
- Demonstrate and evaluate the importance of safety issues in the workplace.
- Apply the concepts of labor relations and legal issues to management and labor.
- Display the ability to create/cope with a changing work environment.
- Perform an effective business presentation in the work environment.
- Demonstrate ability to plan, organize and control a project.

Graduates from this program have found employment as:

- Associate Manager
- Assistant Manager
- Materials Manager
- Team Leader
- Project Coordinator
- Quality Assurance Supervisor
- Club Manager
- Labor Relations Manager
- Human Resources Representative

Helpful High School Courses:

- Computer Skills
- Written/Oral Communications
- Business Education
- DECA or FBLA Membership

	Course Name	Credits	Lec-Lab
Occupation Specific Courses			
196-191	Supervision	3	3 - 0
196-113	Organizational Development	3	3 - 0
196-135	Team Building - Problem Solving	3	3 - 0
196-192	Managing for Quality	3	3 - 0
196-193	Human Resource Management	3	3 - 0
196-190	Leadership Development	3	3 - 0
196-105	Safety in the Workplace	3	3 - 0
196-104	Legal Issues	3	3 - 0
196-166	Managing Diversity and Change	3	3 - 0
196-111	Project Management	3	3 - 0
196-112	Applications of Technology	3	3 - 0
Occupational Support Courses			
101-117	Accounting Fundamentals	3	3 - 0
102-160	Business Law	3	3 - 0
103-106	Introduction to MS Office	3	3 - 0
General Education Courses			
801-195	Written Communication	3	3 - 0
801-196	Oral/Interpersonal Communications	3	3 - 0
804-112	Data Collection, Analysis, & Presentation	3	3 - 0
809-195	Economics	3	3 - 0
809-196	Introduction to Sociology	3	3 - 0
809-198	Introduction to Psychology	3	3 - 0
	Elective	3	3 - 0
	Elective	3	3 - 0
TOTAL CREDITS		***66***	

You can receive an Associate Degree in the following two formats to fit your schedule:

Traditional Management Development

- Classes typically meet once a week during the day or evening and follows the traditional college calendar (August-May).
- Completion of degree usually within 3-4 years.

Accelerated Management Development

- Classes meet for four hours a week, either day or evening, for 6 weeks.
- Classes are not bound by the traditional college calendar.
- Students spend less time in class and more time in independent and group study.
- Students may complete degree in less time (2-3 years), but this format requires more commitment.

Management Development Certificate (18 or 33 credit options)

If you feel stuck in your current position, perhaps you can open some doors by completing a certificate in Management Development. The 33 credit certification can be earned simply by completing up to half of the required courses in the Management Development Associate Degree Program. The 18 credit certificate can be earned by completing five courses from the occupational specific category and one General Education course listed in the AAS curriculum. Every enterprise is a people business and with this certificate, you will better understand and be able to perform the necessary skills in supervision, quality, or leadership.

Course Descriptions

101-117 Accounting Fundamentals **3 Credits**
Accounting fundamentals is a study of accounting from the user's perspective. This course will emphasize the effects of transactions on financial statements, the interrelationship among the financial statements, and the interpretation of financial statement information by taking an analytical and interpretative approach.

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.

103-106 Introduction to MS Office **3 Credits**
Intended for students with little or no prior computer experience. This course will introduce students to the Microsoft Office Suite and overview many of the core competencies of Outlook, Word, Excel, Access, PowerPoint, and Explorer. Students will develop the use of technology for both problem solving and decision-making and will be expected to learn to use the resources available to search for answer to problems.

196-104 Legal Issues **3 Credits**
Students will thoroughly explore the issues surrounding the employee/employer relationship (interviewing, hiring, promotion, discipline, termination) including: discrimination, privacy, wrongful discharge, and organized labor. Student will understand the context of the laws by examining the history of American labor. Student will identify employment issues currently being defined by the court system. Student will apply such knowledge to their workplace as a manager to minimize employer liability.

196-105 Safety in the Workplace **3 Credits**
Identifies the supervisor's responsibility for maintaining a safe, productive workplace. Includes skills used to communicate and enforce rules and procedures, train workers, and represent the interest of both the organization and employees.

196-111 Project Management **3 Credits**
Learners will recognize the role of projects and the importance of project management in the current business environment. Learners will develop successful proposals, plan, schedule, and budget a project. Learner will use computer software to assist them in controlling the progress of the project. Learner will acknowledge firsthand the importance of people skills in managing a project.

196-112 Applications of Technology **3 Credits**
This course focuses on the utilization of multimedia to design, develop, and deliver, effective presentations to the work environment.

196-113 Organizational Development **3 Credits**
Applies the personal leadership qualities identified in the Leadership Development course to the supervisor's role. Focus is placed on: using leadership theories, delegating tasks, leading the group to a vision, managing conflict, influence organizational culture, and related topics that affect the leader's role in the organization.

196-135 Team Building/Problem Solving **3 Credits**
Learner will understand the significance of teams in today's business organizations. Learner will practice facilitation tools and conflict resolution techniques. Problem solving strategies and team building activities will be introduced during an in-class team simulation.

196-166 Managing Diversity and Change 3 Credits
Addresses changes taking place in the workforce and their effect on the supervisor and the organization. Explores a broadened view of diversity, including values, age, disabilities, education and cultural. Provides an action framework for the supervisor to gain advantage by blending and capitalizing on the different skills and perspectives of people and creating an organization where everyone gives his or her best.

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.

196-191 Supervision 3 Credits
Designed to help participants build the skills required to effectively direct the work of others within the structure of organization. Emphasis is placed on the human behavioral aspect of supervision. Focus is on application of managerial process to the daily job of a supervisor.

196-192 Managing for Quality 3 Credits
Examines the role of the supervisor in assisting an organization to produce a quality product or service. The meaning and benefits of quality, the cost of quality systems, how to interact with customers, and data collection tools for continuous improvement will be explored.

196-193 Human Resources 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.

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-195	Written Communication	3 Credits
801-196	Oral/Interpersonal Communication	3 Credits
804-112	Data Collection, Analysis & Presen.	3 Credits
809-195	Economics	3 Credits
809-196	Introduction to Sociology	3 Credits
809-198	Introduction to Psychology	3 Credits

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.

Welding program students advance through each semester in a cohort group. Learning modules progressivel build on what has been accomplished in exercises, practical assignments and exams. For this reason students must take 442-306, 442-307, and 442-308 together during the Fall semester, and 442-309, 442-310, 442-311 and 442-312 together during the Spring semester as part of their learning group.

Welders may perform manual welding, in which the work is entirely controlled by the welder, or semi-automatic welding, in which the welder uses machinery, such as a wire feeder, to perform welding tasks.

Welders develop those manipulative skills, which are necessary to the welding of joints common to all metal industries. They understand and apply the proper theories of welding, cleaning and fabrication to appropriate shop applications. Welders know how to read blueprints; utilize the necessary tools; and perform the mathematical functions essential to the completion of a project.

Welders follow and apply safety practices and procedures as they relate to industrial situations. They are able to understand and communicate technical information related to the profession.

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

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

- Integrate established safety protocol
- Set-up, repair, and maintain tools and equipment using established procedures
- Operate power tools and equipment using established processes and procedures
- Perform welding, cutting, and allied processes using established procedures
- Inspect welded specimens
- Meet time guidelines

Career Outlook:
In construction, wholesale trade, and repair services, employment of welders and cutters will grow more rapidly than most other occupations. The level of construction is expected to expand, as is the number of metal products needing repair, increasing the need for welding and cutting.

Graduates from this program have found employment as:

- Production Line Welder
- Welder Helper
- Welder Tacker
- Fabrication Helper
- Fabricator
- Machine Maintenance Helper

Note: Short-term certificate options are also available.

	Course Name	Credits	Lec-Lab
Semester 1			
420-310	Machine Shop Fundamentals	1	0 - 2
421-380	Blueprint Reading (Welding)	3	2 - 3
442-306	Welding Processes & Safety	4	3 - 5
442-307	Gas Metal Arc Welding (GMAW)[1]	3	1 - 5
442-308	Flux Cored Arc Welding (FCAW)[1]	3	1 - 5
804-306	Shop Math I	2	3 - 0
Semester 2			
442-305	Metal Fabrication[1]	2	1 - 3
442-309	Industrial Welding Procedures, Codes and Specifications	2	1 - 2
442-310	Shielded Metal Arc Welding (Non Low Hydrogen)[1]	3	1 - 5
442-311	Shielded Metal Arc Welding (SMAW) (Low Hydrogen)[1]	3	1 - 5
442-312	Gas Tungsten Arc Welding (GTAW)[1]	3	1 - 5
801-311	Communication	2	3 - 0
804-308	Shop Math II	2	3 - 0
TOTAL CREDITS		***33***	

[1]Courses must be taken concurrently as part of the learning cohort group.

Course Descriptions

420-310 Machine Shop Fundamentals **1 Credit**
This course is designed to acquaint the student with machine shop bench work, drill presses, pedestal grinders, and information on basic power machines. The student will have an opportunity to use and understand tools such as files, hacksaws, measuring devices, band saws, drill press, and grinders.

421-380 Blueprint Reading (Welding) **3 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.

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 and 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. ***Corequisite: (442-307) Gas Metal Arc Welding, and (442-308) Flux Cored Arc Welding.***

442-307 Gas Metal Arc Welding (GMAW) **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 **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. ***Corequisite: (442-306) Welding Processes and Safety, and (442-308) Flux Cored Arc Welding.***

442-308 Flux Cored Arc Welding (FCAW) **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 **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. ***Corequisite: (442-306) Welding Processes and Safety, and (442-307) Gas Metal Arc Welding .***

442-309 Industrial Welding Procedures, Codes and Specifications 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) principals 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. ***Corequisite: (442-310) Shielded Metal Arc Welding (Non Low Hydrogen), (442-311) Shielded Metal Arc Welding (Low Hydrogen), and (442-312) Gas Tungsten Arc Welding.***

442-310 Shielded Metal Arc Welding (SMAW) (Non Low Hydrogen) 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 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. ***Corequisite: (442-309) Industrial Welding Procedures, Codes and Specifications, (442-311) Shielded Metal Arc Welding (Low Hydrogen), and (442-312) Gas Tungsten Arc Welding.***

442-311 Shielded Metal Arc Welding (Low Hydrogen) (SMAW) 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. ***Corequisite: (442-309) Industrial Welding Procedures, Codes and Specifications, (442-311) Shielded Metal Arc Welding (Low Hydrogen), and (442-312) Gas Tungsten Arc Welding.***

442-312 Gas Tungsten Arc Welding (GTAW) 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 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. ***Corequisite: (442-309) Industrial Welding Procedures, Codes and Specifications, (442-310) Shielded Metal Arc Welding (Non Low Hydrogen), and (442-311) Shielded Metal Arc Welding (Low Hydrogen).***

General Education Course Requirements:

(see course descriptions on pages 36-39)

801-311	Communication	2 Credits
804-306	Shop Math I	2 Credits
804-308	Shop Math II	2 Credits

Library research, written assignments and tests, and basic metallurgy and certification preparation are all units of instruction involved in the above area.

Accounting Assistant Certificate (32 cr.)

Students may choose to receive a certificate as an Accounting Assistant upon satisfactory completion of the first two semesters of the Accounting Associate Degree Program. With this certificate, you will be better prepared for entry level positions related to accounts receivable, accounts payable, payroll, bookkeeping, and other related office functions.

Basic Engine Performance & Air Conditioning Certificate (12 cr.)

This certificate prepares the student to perform preventive maintenance, diagnostics, and repairs on automotive vehicles and light trucks. Areas of study include the diagnosis and repair of battery, starter, and charging systems; mechanical and electrical systems; engine ignition systems; and heating and air conditioning systems. Students will learn the necessary technical skills and essential worker traits to secure and retain employment in the automotive service and related fields. The automotive technician program is a NATEF-certified program and is recognized nationally for its excellence.

Brake, Alignment, & Lube Certificate (13 cr.)

This certificate prepares the student to perform preventive maintenance, diagnostics, and repairs on automotive vehicles and light trucks. Areas of study include the diagnosis and repair of: braking systems (except anti-lock brakes), steering and suspension systems, all-wheel alignment, and transmission systems. Students will learn both basic and advanced technical skills and essential worker traits to secure and retain employment in the automotive and related fields.

Business Technology Certificate

The Business Technology one-year certificate is designed to prepare tomorrow's assistants who want to position themselves to become valued members of the workplace team. Students will become respected assistants who are equipped with technology, communication, and professional office skills. This certificate consists of the first-year courses from the Administrative Assistant Associate Degree program. Credits earned in this program may be applied to the 2-year associate degree if desired.

Students will be introduced to the knowledge, skills, and abilities related to important office skills such as filing, customer service, and office procedures. Students will also learn technology skills related to computer operating systems, word processing, spreadsheets, business presentations, email, calendars, and task management. Refer to the Blackhawk Technical College Catalog for the Administrative Assistant Associate Degree program description and courses.

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

- Compose documents
- Conduct research
- Create presentations
- Manage information in electronic and paper formats
- Process incoming and outgoing communications
- Use software applications

Certificate completers may find employment as:

- Office Assistant
- Secretary
- Office Clerk
- Receptionist

Helpful High School Courses:

- Touch keyboarding skill of 40 wpm or higher for 5 minutes with 5 or fewer errors is a pre-requisite for one or more first semester courses in this program. Keyboarding, Skillbuilding and Keyboarding Applications courses are available at BTC for students without these skills.
- English composition
- Business education courses
- Advanced standing may be available for some courses; check with your high school counselor.
- Proficiency testing is available for some courses; check with BTC's Student Services staff.

	Course Name	Credits	Lec-Lab
Semester 1			
106-108	Proofreading and Editing	1	0 - 2
106-131	Keyboarding Applications* OR		
106-133	Document Formatting*	3	1 - 4
106-145	Information Technology Essentials	3	2 - 2
106-157	Administrative Assistant Fundamentals	1	1 - 0
196-107	Professional Profiles	3	3 - 0
801-195	Written Communication	3	3 - 0
804-106	Introduction to College Mathematics	3	3 - 0
804-110	OR Elementary Algebra with Applications		
Semester 2			
101-102	Office Accounting	3	2 - 2
106-129	Business Filing	1	0 - 2
106-146	Word Processing Applications*	3	1 - 4
106-153	Administrative Office Procedures[1]	3	2 - 2
106-159	Business Spreadsheets	3	2 - 2
106-165	Business Presentations	1	0 - 2
801-196	Oral/Interpersonal Communication	3	3 - 0
TOTAL CREDITS (minimum)		***34***	

*Course has recommended keyboarding skills as a prerequisite.

[1]Course has prerequisite.

All courses in this certificate qualify for the Administrative Assistant A.A.S. Degree. This certificate is offered at both Central Campus and the Monroe Campus.

*Interested students should contact a counselor/program advisor to take a keyboarding proficiency assessment prior to registration. Students scoring over 40 wpm (with 5 minutes with 5 or fewer uncorrected errors) should enroll in Document Formatting or Keyboarding Applications. Students scoring 30 – 40 wpm should enroll in Keyboarding Applications. Students scoring below 30 wpm (3 minutes with 3 or fewer uncorrected errors) should begin with Keyboard and/or Skillbuilding courses.

Business Technology 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.

106-108 Proofreading and 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.

106-129 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.

106-131 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. Students can expect to possess keyboarding skills of 40 wpm or higher at the end of this course. Touch keyboarding skill *(30 wpm for 3 minutes with 3 or fewer uncorrected errors)* is assumed at the beginning of this course. This course is not required for students who can demonstrate this competency on a timed test.

106-133 Document Formatting **3 Credits**
Document Formatting further develops computer keyboarding skills and emphasizes the production of a wide range of typical business correspondence, tables, reports, and forms from unarranged and rough-draft sources. This course has a heavy emphasis on producing mailable documents. The ability to format basic letters, memos, reports, and tables using word processing software is expected at the beginning of the course along with touch keyboarding skill *(a minimum of 40 wpm for 5 minutes with 5 or fewer uncorrected errors).*

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. Students completing this course may be ready for 106-131 Keyboarding Applications, or may continue to develop their proficiency and keyboarding abilities in Skillbuilding. This course is not required for students who can demonstrate keyboarding skills of 30 words per minute with 3 or fewer uncorrected errors on a 3 minute timing.

106-143 Skillbuilding **1 Credit**
This elective 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. This course may be taken more than once to further develop skills. Students should know the alphabetic keyboard by touch or have taken 106-140 Keyboarding. Students completing this course may be ready for 106-131 Keyboarding Applications or may continue to develop their proficiency and keyboarding abilities by repeating the course.

106-145 Information 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. The pace of this course is based on touch keyboarding speed of 40 words per minute skills.

106-153 Administrative Office Procedures **3 Credits**
This course covers office procedures concepts and practices and includes practical experience in areas such as specialized office equipment, telecommunications, mail processing, telephone techniques, office supplies, ethics, ergonomics, and customer service. Critical-thinking, problem-solving, and job performance skills in a global business environment are also included. It is expected that students have successfully completed 106-145 Information Technology Essentials or equivalent.

106-157 Administrative Assistant Fundamentals **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 guest speakers will be part of this course. Whenever possible, this course should be taken during the student's first semester.

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.

106-165 Business Presentations **1 Credit**
Microsoft PowerPoint software will be used to create dynamic, professional-looking presentations. Students will be able to design an electronic slide show—format text; apply special effects; add graphics, sound, and video; integrate other software; print in a variety of formats and media; and deliver presentations they authored. Students will be prepared to take the Microsoft Office Specialist certification exam. Touch keyboarding and basic word processing skills are necessary.

196-107 Professional Profiles **3 Credits**
The mission of the course is to empower students to enhance performance through personal self-management. The course, which is built around "The Seven Habits of Highly Effective People," provides an opportunity to develop both personally and professionally in effectively dealing with change.

For more information contact:
At Central Campus: **Terese Wash, 608•757•7706;** email: twash@blackhawk.edu; at Monroe Campus: **Cindy Fuerstenberg, 608•328•1660;** email: cfuerstenberg@blackhawk.edu, or **Pat Kempinski,** Associate Dean, Business & Information Technology Division, email to pkempinski@blackhawk.edu.

Community Based Residential Facility (CBRF) Caregiver

This course is a 46-hour video-based course designed to provide instruction in individual community based residential facilities. Course content includes resident rights, client group needs, responding to challenging behaviors, standard precautions, meeting dietary needs, and administering medications. The course focuses on elderly and dementia populations.

There is an annual video rental fee that includes one workbook to be kept on site. There is both written and skills performance testing.

The course meets the requirements of Administrative Code HFS 83 and has been approved by the Wisconsin Department of Health and Family Services.

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	Lec-Lab
Semester 1			
631-100	Microcomputer Fundamentals	3	varies
631-101	Troubleshooting Operating Systems	3	varies
450-315	Customer Service Fundamentals	2	varies
631-102	Microcomputer Hardware Service	3	varies
450-316	Microcomputer Software Service	2	varies
450-317	Troubleshooting Microcomputers	2	varies
TOTAL CREDITS		***15***	

**** Participants must complete BTC's program admission process for certain certificates. Prerequisite: Must be registered in the Computer Service Technician Program***

Criminal Justice–Law Enforcement Academy

This program is the Department of Justice Certified Police Academy. It meets or exceeds ALL requirements set down by the Department of Justice. It gives persons who complete the program certifiability as a law enforcement officer in the state of Wisconsin.

Admission is restricted to those who qualify under the Administrative Rules of the WIsconsin Law Enforcement Standards Board and the Training and Standards Bureau.

Topics include: policing a free society, constitutional law, defense and arrest topics, ethics, fire arms, report writing, professional communications and community policing.

Customer Service Certificate (12 Credits)

This certificate program includes occupational skills needed to be successful in the world of customer service. Business skills, people skills, technology, personal effectiveness and much more will be explored to help the learner establish a solid customer service foundation for any career. Topical areas included in this short-term certificate are:

- Service Professions
- Customer Retention
- Business Skills
- Business Software
- Interpersonal Assessments
- Communication
- Field Study

Entrepreneurship in Small Business Certificate (10 cr.)

Intended for anyone interested in exploring the planning components of a small business start-up and operation. Students will be exposed to real-life situations with hands-on examples dealing with the how to's and what if's of owning their own business. Participants will be connected with various professionals including bankers, attorneys and accountants. Participants will also have opportunities to network with other budding entrepreneurs from the area.

This Certificate is offered in conjunction with Moraine Park Technical College in Fond du Lac. Courses are delivered using instructional television technology. Instructors located in Fond du Lac present course materials to students across Wisconsin. Course sequencing is required; therefore, students must enroll for Fall semester start-up.

Course Descriptions

145-180 Organizing Your Small Business 2 Credits
There's more to starting a business than securing a bank loan and a key to the front door. Students will explore the many components necessary to owning and operating a small business today. You will evaluate your needs and readiness to take the plunge into business ownership as well as begin formulating a plan for your own small business venture.

145-181 Financial Management for Your Small Business 2 Credits
Every small business must operate a fiscally sound business in order to experience financial success. Assessing the components of the three basic financial reports will include preparing a balance sheet, income statement, and cash flow statement.

145-182 Marketing Your Small Business 2 Credits
Marketing is the key to customers which in turn is the essence of any business. Students will evaluate the components for a marketing plan including: marketing research, customer focus, quality, service, pricing, and advertising.

Entrepreneurship in Small Business Certificate Course Descriptions (cont.)

145-183 Entrepreneurial Management 2 Credits
A successful business is one with a strategic plan. Students will begin to focus on their strategic plan for servicing customers with a winning attitude, performance, teamwork, and competition.

145-184 Writing A Business Plan for Your Small Business 2 Credits
You are now ready to assemble your business vision for the financial, technical, organizational, administrative, marketing, and advertising components of a business plan. This important final step is crucial in gaining the financial and moral support needed to open your own business.

Groundskeeping (4 cr.)

Selection and care of appropriate landscaping plants and turf grass for various uses are covered in this program. You will learn diagnosis and control of diseases, weeds, and pests common to Midwestern landscapes. Practical hands-on experience is emphasized.

Industrial Engineering Certificate

The Industrial Engineering certificate is a 13-credit certificate designed to train persons in the field of industrial engineering and manufacturing production.

Industrial Engineering Technicians work on problems involving the efficient use of personnel, materials, and machines in the production of goods and services. They are employed in a variety of businesses and industries, including the manufacture of goods and equipment of all kinds, food processing, health care facilities, and many others.

This program is designed with the working student in mind and is offered as independent study. Access to many books and resource materials is provided by BTC. Use of these materials will require frequent visits to the campus. Some on-campus time for study, testing, and use of videotapes, etc., will also be required.

These courses are offered in a self-paced format. Several of the courses are also available in a classroom setting. Contact the program instructor, John Bergman, at 608•743•4461 for further information.

	Course Name	Credits	Lec-Lab
Semester 1			
623-121	Engineering Drawings and Measurements	3	SP
623-160	Manufacturing Materials & Processes	3	SP
623-165	Facilities Planning	3	SP
623-166	Industry & Quality Control	3	SP
623-196	Standards and Regulations	1	SP
	TOTAL CREDITS	***13***	

Instructional Assistant Certificates

Introduction to the Instructional Assistant Careers Certificate 15 credits
This Advance Technical Certificate (ATC) is designed for anyone with an interest in an introduction to the roles of instructional assistants. This program provides an overview of the variety of duties of assisting teachers in implementing instructional programs for individual or small groups of students. The coursework in this certificate program provides a basic foundation in theory and practical application of how children learn, teaching strategies, and developing positive relationships with students, supporting the classroom teacher with classroom management, and addressing the needs of special need students. This certificate is a partial fulfillment of the NCLB Act.

Preparing for College
The following high school classes will help you prepare for this program: **Art • Child Care • English • Math • Parenting • Psychology • Speech**

	Course Name	Credits	Lec-Lab
522-101	Teamwork in School Settings	3	2 - 1
522-103	Introduction to Educational Practices	3	2 - 1
522-106	Child and Adolescent Development	3	3 - 0
522-107	Overview of Special Education	3	3 - 0
522-111	Guiding and Managing Behavior	3	2 - 1

Course Descriptions

522-101 Teamwork in School Settings 3 Credits
Working together is paramount in helping all children learn. This introductory course in the Instructional Assistant certificate program will include group dynamics, class and school policies, legal including ADA guidelines, ethical and moral responsibilities, liability, and confidentiality as they relate to the role of the Instructional Assistant as a team member.

522-103 Introduction to Educational Practices 3 Credits
This course will address the fundamentals of teaching methodologies, learning styles, factors influencing teaching effectiveness strategies to meet the needs of all learners, questioning techniques, basic assessment practices, and issues and trends affecting our schools today.

522-106 Child and Adolescent Development 3 Credits
This course provides an overview of growth and development birth through adolescence. It acquaints the learner with the fundamental tasks of physical, motor, perceptual, cognitive, social/emotional and language development.

522-107 Overview of Special Education 3 Credits
This course provides training in the classifications of special education, pre-K to grade 12. Studies include causes of special needs and intervention strategies. Students examine key development milestones and how they relate to physical, mental, emotional or social development of children.

522-111 Guiding and Managing Behavior 3 Credits
The focus of this course will be on guiding children's behavior to keep them safe and healthy. Strategies for improving behavior problems at all levels in the inclusive classroom, on the bus, the playground and on field trips will also be included.

Instructional Assistant Certificates

Supporting Children's Learning Certificate 11 Credits

This Advanced Technical Certificate (ATC) is designed to further the professional development needs of anyone preparing for, or already engaged in, an instructional assistant position. The coursework in this certificate program addresses methods for assisting in the instruction, guidance, and classroom management of students by performing a variety of instructional support activities related to grade level curriculum. Integrating current technology into the learning environment is also introduced. This certificate is a partial fulfillment of the NCLB Act.

Preparing for College
The following high school classes will help you prepare for this program: **Art • Child Care • English • Math • Parenting • Psychology • Speech**

	Course Name	Credits	Lec-Lab
522-102	Techniques for Reading and Language Arts	3	1 - 2
522-111	Guiding and Managing Behavior	3	2 - 1
522-112	Techniques for Math and Science	3	1 -2
522-113	Media and Computer Resources	2	0 - 2
	TOTAL CREDITS	***11***	

Course Descriptions

522-102 Techniques for Reading & Language Arts 3 Credits
This course will focus on the Instructional Assistant's role in reading and language arts. The student will gain an understanding of how to work with children individually and in groups through questioning, listening and guiding techniques. Current classroom materials plus enrichment and support activities will be addressed.

522-111 Guiding and Managing Behavior 3 Credits
The focus of this course will be on guiding children's behavior to keep them safe and healthy. Strategies for improving behavior problems at all levels in the inclusive classroom, on the bus, the playground and on field trips will also be included.

522-112 Techniques for Math and Science 3 Credits
This course will address techniques for the Instructional Assistant in assisting the classroom teacher in group and individual tutoring in arithmetic, science, and math. Current classroom support materials and software will be discussed.

522-113 Media and Computer Resources 2 Credits
This course provides training in the operation of VCRs, Elmos, video equipment, overhead projector, tape recorders and computers as it relates to the instructional assistant. The class includes hands on experience with instructional resources such as learning centers, software, and other instructional aids than enhance.

Management Development Certificate (18 or 33 credit options)

If you feel stuck in your current position, perhaps you can open some doors by completing a certificate in Management Development. The 33-credit certificate can be earned simply by completing up to half of the required courses in the Management Development Associate Degree Program. The 18 credit certificate can be earned by completing five courses from the occupational specific category and one General Education course listed in the AAS curriculum. Every enterprise is a people business and with this certificate, you will better understand and be able to perform the necessary skills in supervision, quality, or leadership.

Marketing Certificate (12 credits)

All business must begin with marketing a product or service. Here's your chance to gain valuable skills by enrolling in this focused certificate in Marketing. Satisfactory completion of the following courses within the Marketing Associate Degree Program will earn you the right to add this marketing certificate to your resume today! Courses include: 104-102 Marketing Principles, 104-104 Selling Principles, 104-117 Promotion Principles, 104-160 Marketing Research. See Marketing Associate Degree pages for course descriptions.

Medical Office Specialist Certificate (30 cr.)

Students may elect to receive a Medical Office Specialist Certificate upon satisfactory completion of the first year of this Associate Degree program. Students who choose this option may return to Blackhawk Technical College at a later date (in accordance with the College's credit for prior learning policy) to complete the Medical Administrative Specialist Associate Degree.

Network Support Certificate*

This certificate program provides the extensive hands-on training with computer network hardware through the manipulation of hardware, software, and the operating system. 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 Windows 98, Windows 2000 and Windows XP. Emphasis will be placed on the diagnosis and repair of local and wide area network hardware, network hardware installation, peer-to-peer networks, and server-based networks.

	Course Name	Credits	Lec-Lab
Semester 1			
631-100	Microcomputer Fundamentals	3	varies
631-101	Troubleshooting Operating Systems	3	varies
631-115	LAN/WAN Fundamentals	3	varies
631-116	Troubleshooting Network Oper. Syst.	3	varies
450-315	Customer Service Fundamentals	2	varies
450-319	Microcomputer Peripherals	2	varies
450-320	Troubleshooting Comm. Systems	2	varies
450-321	Troubleshooting Network Hardware	2	varies
	TOTAL CREDITS	***20***	

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

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

Nursing Assistant Refresher Training (Certified)

This course is designed for:

- Nursing Assistants whose certification has lapsed
- Nursing Assistants who are relocating to Wisconsin
- Student nurses who have passed a fundamentals of nursing course within the last two years

This review course consists of 3 video-based modules (total 6 hours). Course content includes:

Infection control; working environment; role, realm and responsibility of nursing assistant; understanding the resident; techniques to improve circulation

Personal care; assisting with activity and rest; vital signs; safety in environment

Assisting with elimination procedure; providing nutrition and fluids; adapting nursing care for conditions of aging and chronic illness; communicating effectively; facing grief and death

The student will be given information about competency testing through Promissor (a national testing company) at the end of the course.

Personal Care Worker

The Personal Care Worker-Home Care course is a 40-hour course that prepares students to assist clients with personal and restorative health care. Basic knowledge and skills include current job duties, client rights, human development, nutrition, safety, communication, supportive and restorative care, and death and dying.

Demonstration of selected skills such as body mechanics, standard precautions, hygiene cares, transfers, and vital signs is necessary to receive a certificate of completion.

Phlebotomy

The Phlebotomy certificate program trains students in all aspects of medical specimen collection and processing. This program is open to anyone who has courses or career training in body structure or function and medical terminology.

The health care profession continues to change and grow with limitless opportunities for employment. One of the key elements of success in the health profession, as with any career, is the ability to add specific technical skills to your work experience.

The Phlebotomy certificate offers you a flexible short-term training opportunity to build on the skills you already have and increase your value in the job market. More than 90% of program graduates have found employment in their chosen field within six months of completing a program.

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

- Demonstrate knowledge of the health care delivery system and medical terminology
- Demonstrate knowledge of infection control and safety
- Outline the basic anatomy and physiology of body systems and related pathologic conditions
- Demonstrate an understanding of the principles and practice of specimen collection in the patient care system
- Demonstrate knowledge of collection equipment, various types of additives used, special precautions necessary, and substances that can interfere in clinical analysis of blood constituents
- Demonstrate proper techniques to perform venipuncture and capillary puncture
- Demonstrate proper requisitioning, specimen transport and specimen processing
- Apply the basic concepts of communication, sociology, and psychology to patient interaction

	Course Name	Credits	Lec-Lab
513-410	Phlebotomy Procedures (non credit)		2 - 2
513-312	Phlebotomy Practicum	2	varies

Upon successful completion of 513-410, students enroll in the 120-hour practicum, which offers an in-depth clinical experience arranged individually to fit your schedule. Following the successful completion of both portions of the program, students will be awarded a certificate and be eligible to register for a national certification exam.

A Caregiver Background Check is required for the clinical portion of this program.

Promotion Certificate (12 cr.)

Create your own career opportunities by earning this focused certificate in Promotion. The key to sales is proper promotion of your product or service. So regardless of your occupation, satisfactory completion of the following courses within the Marketing Associate Degree Program will help you advance your career. Courses include: 104-102 Marketing Principles, 104-117 Promotion Principles, 104-125 Marketing Media, 104-144 Graphic Applications in Marketing. See Marketing Associate Degree pages for course descriptions.

Sports Turf Management (2 cr.)

This certificate covers the establishment, maintenance, and problem identification associated with sports turf. Emphasis is on golf course, athletic fields and other high use areas. Hands-on field experience will be provided in this specialized area.

Transportation & Logistics Management (21 cr.)

Logistics and transportation management prepares students in all activities involved in the flow of goods from the point of origin to the point of consumption. Specific focus areas include transportation, inventory control materials management, purchasing, global trade, customer service, and logistics management. This certificate is designed for a person seeking introductory positions with a carrier or shipper, or other supply chain related positions. Courses are offered in the accelerated learning format. Prior experience with Word, Excel, and Internet searches is helpful.

Certificate completers will be able to:

- Utilize terminology in the area of transportation
- Apply methodologies and techniques to process the flow of goods.
- Integrate the area of supply chain management for low total cost and improved services.
- Optimize utilization of modes of transportation.
- Utilize computerized applications of logistics.

Course Descriptions:

103-106 Introduction to MS Office **3 Credits**
Intended for students with little or no prior computer experience. This course will introduce students to the Microsoft Office Suite and help them learn many of the core competencies of Outlook, Word, Excel, Access, PowerPoint, and Explorer. Students will develop their use of technology for both problem solving and decision-making, and will be expected to learn to use the resources available to search for answers to problems.

182-102 Computer Applications in Logistics **3 Credits**
This course develops fundamental skills in the use and integration of word processing, spreadsheets and database software for transportation data analysis and related logistics applications. Current industry applications of technology will be explored.

182-109 Introduction to Transportation **3 Credits**
Examine the framework, role, and historical development of transportation; characteristics of railroad, truck, and air transportation, and the pipeline industry.

182-116 Transportation Administration **3 Credits**
Discuss fundamentals of the administrative aspects of transportation operations; hands-on exercises in freight classification, tariffs, carrier pricing schedules, rates, bills of lading, contracts, and freight claims.

182-157 Logistics Management **3 Credits**
Learn basic concepts, management levels, elements of inventory control, transportation, warehousing, packaging, material handling and purchasing, and the role that order processing plays in the distribution cycle.

182-166 Motor Carrier/Commercial **3 Credits**
Explore fundamental understanding of motor carrier transportation: equipment DOT requirements for diver and hours of service, cargo documentation, dispatching, legal limits, fuel tax, licensing, contracting, and hazardous materials.

138-160 Global Supply Chain **3 Credits**
Review the basics of international trade including entering the overseas market, distribution, payment letters of credit, shipping documents, importing, customs house brokers, government requirements, and sources of assistance and information.

Contact the Business & Information Technology Division office for scheduling and registration information. Course schedules are subject to change based on demand, instructor availability, and access to the WTCN network. For more information, **call 608•757•7623.**

Under Vehicle Specialist

Introduces students to fluids servicing and diagnosis, maintenance, and repair of brakes, suspension and steering, and exhaust systems on light, medium and heavy-duty vehicles. Prepares students for jobs in the under vehicle servicing industry.

Welding Fabrication Processes & Application (GMAW/FCAW)*

Welding is the most common way of strike joining metal strike. Heat is applied to the pieces that need to be joined. A filler material is added as the metal fuses together to form a permanent bond. Welders learn a variety of skills and processes through study and practice. Students learn oxygen-fuel cutting (OFC), gas metal arc welding (GMAW), and flux core arc welding (FCAW). Employment opportunities for welders are abundant in construction, industry, and repair-oriented service industries. The need for welders is forecasted to expand over the next several years.

	Course Name	Credits	Lec-Lab
420-310	Machine Shop Fundamentals	1	varies
421-380	Blueprint Reading (Welding)	3	varies
442-306	Welding Processes & Safety	4	varies
442-307	Gas Metal Arc Welding (GMAW)	3	varies
442-308	Flux Core Arc Welding (FCAW)	3	varies
	TOTAL CREDITS	***14***	

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

Prerequisite: Must be registered in the Welding Program.

Welding Fabrication Processes & Application (SMAW/GTAW)*

This certificate program prepares students for Shielded Metal Arc Welding (SMAW) using the E-6011, E-7014, and E-7018 structural steel electrodes. They will also gain hands-on skills in the welding of steel, and aluminum using the Gas Tungsten Arc Welding (GTAW) process. Students will fabricate simple projects or part of a project found on engineering drawings. Welder positions are available in construction, industrial and service/repair sectors.

	Course Name	Credits	Lec-Lab
442-305	Metal Fabrication	2	varies
442-309	Industrial Welding Procedures, Codes & Specifications	2	varies
442-310	Shielded Metal Arc Welding (Non Low Hydrogen)	3	varies
442-311	Shielded Metal Arc Welding (Low Hydrogen)	3	varies
442-312	Gas Tungsten Arc Welding (GTAW)	3	varies
TOTAL CREDITS		***13***	

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

Prerequisite: Must be registered in the Welding Program.

Clinical Laboratory Technician

The Clinical Laboratory Technician program is offered through a contractual agreement with Madison Area Technical College. General education courses may be taken at Blackhawk Technical College. All occupational specific/core courses must be taken through Madison Area Technical College.

Students are encouraged to contact MATC for specific program information.

ABOUT THE PROGRAM

The Clinical Laboratory Technician (CLT) program is approved by the National Accrediting Agency for Clinical Laboratory Science (8410 West Bryn Mawr Avenue, Suite 670, Chicago, IL 60631; 773-714-8880). 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 Madison and surrounding communities. Students should anticipate the possibility of traveling or relocating to complete the clinical experience. A list of laboratories used for the clinical experience is available from the program director. Students are admitted in the fall semester only.

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.

Requirements For Admission:

1. High school graduation, HSED, or GED with a C or better ave.
2. The following high school courses with C or better grades:
   a. Three years of English
   b. One year of chemistry
   c. One year of general biology
   d. Two years of algebra or one year of algebra and one year of geometry (or one semester of each course at the college level with a grade of C or better)
3. Satisfactory score on the ASSET, ACT, or SAT

Program Requirements:

Once admitted to the program, the following requirements must be met in order to continue in the program.

1. Caregiver Background Check (CBC)
2. Physical exam and completed Personal Health History form on file prior to the beginning any clinical experience

PLANNING TO PURSUE A FOUR-YEAR MEDICAL TECHNOLOGY (Clinical Laboratory Science) DEGREE?

Consider the following course substitutions:

1. Anatomy & Physiology 1 & 2 for General Anatomy & Physiology
2. College Chemistry 1 & 2 for Bioorganic Chemistry

(Both Anatomy and Physiology 2 and College Chemistry 2 can be used to meet elective requirements.)

	Course Name	Credits	Lec-Lab
Semester 1			
10-513-110	Basic Lab Skills	1	2
10-513-111	Phlebotomy	2	3
10-513-113	Lab QA/Math	1	2
10-513-115	Basic Immunology Concepts	2	3
20-806-206	General Anatomy and Physiology*	4	5
20-806-201	General, Organic, & Biological Chem.*	5	6
	Elective*	1	E
Semester 2			
10-513-114	Urinalysis	2	3
10-513-120	Basic Hematology	3	4
10-513-121	Coagulation	1	2
10-513-122	Introduction to Blood Bank	2	3
10-513-123	Advanced Blood Bank	2	3
20-806-273	Microbiology*	4	5
20-801-151	Communication Skills 1* OR	3	3
20-801-201	English Composition 1*	(3)	(3)
Summer Session			
10-809-197	Contemporary American Society* OR	3	3
20-809-203	Introduction to Sociology*	(3)	(3)
10-809-199	Psychology of Human Relations* OR	3	3
20-809-231	Introduction to Psychology*	(3)	(3)
Second Year-Semester 1			
10-513-130	Advanced Hematology	2	3
10-513-131	Introduction to Clinical Chemistry Diag.	3	4
10-513-132	Advanced Clinical Chemistry Diag.	2	3
10-513-133	Clinical Microbiology	4	7
20-801-152	Communication Skills 2* OR	3	3
20-801-202	English Composition 2*	(3)	(3)
	Elective*	2	E
Second Year-Semester 2			
10-513-140	Advanced Topics in Microbiology	2	2
10-513-141	Clinical Experience	11	40
TOTAL CREDITS		***42***	

Course Descriptions

10-513-110 Basic Lab Skills **1 Credit**
Explores health career options and fundamental principles and procedures of the clinical laboratory. Incorporates medical terminology, basic laboratory equipment, safety and infection control procedures, and simple laboratory tests. ***Prerequisites: Successful completion of the following high school courses with a grade of C or better: three years of English, one year of chemistry, one year of general biology, two years of algebra or one year algebra and one year of geometry; and a satisfactory score on ACT or compatible substitute.***

10-513-111 Phlebotomy **2 Credits**
Provides opportunities to perform routine venipuncture, capillary puncture, and special collection procedures. ***Prerequisites: 10-513-110.***

10-513-113 Laboratory Quality Assurance & Math 1 Credit
Focuses on mathematical calculations used in the laboratory. Explores concepts of quality control and quality assurance, regulatory compliance requirements, and certification and continuing education programs. ***Prerequisites: Successful completion of the following high school courses with a grade of C or better: three years of English, one year of chemistry, one year of general biology, two years of algebra or one year algebra and one year of geometry; and a satisfactory score on ACT or compatible substitute.***

Clinical Laboratory Technician

10-513-115 Basic Immunology Concepts 2 Credits
Provides an overview of the immune system including testing methods for diagnosis of immune system disorders and viral and bacterial infections. ***Prerequisites: Successful completion of the following high school courses with a grade of C or better: three years of English, one year of chemistry, one year of general biology, two years of algebra or one year algebra and one year of geometry; and a satisfactory score on ACT or compatible substitute.***

10-513-114 Urinalysis 2 Credits
Perform physical, chemical and microscopic analysis of urine. Explore renal physiology and correlate urinalysis results with clinical conditions. ***Prerequisites: Satisfactory completion of all first semester, first year Clinical Laboratory Technician courses.***

10-513-120 Basic Hematology 3 Credits
Covers theory and principles of blood cell production and function. Introduces basic practices and procedures in the hematology laboratory. ***Prerequisites: Satisfactory completion of all first semester, first year Clinical Laboratory Technician courses.***

10-513-121 Coagulation 1 Credit
Introduces theory and principles of coagulation and explores mechanisms involved in coagulation disorders. Emphasis is placed on laboratory techniques used to diagnose disease and monitor treatment. ***Prerequisites: 10-513-120***

10-513-122 Introduction to Blood Bank 2 Credits
Focuses on basic blood banking concepts and procedures including blood typing and compatibility testing. ***Prerequisites: Satisfactory completion of all first semester, first year Clinical Laboratory Technician courses.***

10-513-123 Advanced Blood Bank 2 Credits
Covers advanced blood banking concepts and procedures including workups for adverse reaction to transfusions and disease states. ***Prerequisites: 10-513-122***

10-513-130 Advanced Hematology 2 Credits
Explores mechanisms involved in the development of hematologic disorders. Emphasis is placed on laboratory techniques used to diagnose disorders and monitor treatment. ***Prerequisites: 10-513-120.***

10-513-131 Introduction to Clinical Chemistry Diagnostics 3 Credits
Introduces techniques and procedures for routine analysis using photometric, potentiometric and separation techniques. Covers pathophysiology and methodologies for carbohydrate, lipids, proteins, renal function, and blood gas analysis. ***Prerequisites: Satisfactory completion of all second semester, first year Clinical Laboratory Technician courses and 20-806-201***

10-513-132 Advanced Clinical Chemistry Diagnostics 2 Credits
Covers pathophysiology and methodologies for hepatic, bone, cardiac markers, tumor markers, endocrine function, fetal function, miscellaneous body fluids, and toxicology. Includes techniques and procedures for analysis using sophisticated laboratory instrumentation. ***Prerequisites: 10-513-131.***

10-513-133 Clinical Microbiology 4 Credits
Presents the clinical importance of infectious diseases with emphasis on 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 be discussed. ***Prerequisites: Satisfactory completion of all second semester, first year Clinical Laboratory Technician courses and 20-806-273.***

10-513-140 Advanced Topics in Microbiology Fundamentals 2 Credits
Introduces laboratory methods used in the isolation and initial identification of pathologic microorganisms. ***Prerequisites: 10-513-133***

10-513-141 Clinical Experience 11 Credits
Provides opportunities to practice the principles and procedures of laboratory medicine in a clinical laboratory setting. Learn to operate state of the art instruments and report results on Laboratory Information Systems. ***Prerequisites: Satisfactory completion of all Clinical Laboratory Technician program courses.***

Interpreter Technician

The Interpreter Technician Program is a shared program with Gateway Technical College–Elkhorn Campus, with program classes at the Elkhorn facility.

This program educates the student in the areas of Deaf history, culture, and American Sign Language (ASL). Course work includes an introduction to Deaf culture, psycho-social aspects of Deafness, history of the Deaf community in America, and linguistic aspects of English and ASL, with an emphasis being placed on receptive and expressive ASL skill development.

Program Learning Outcomes

Graduates of the Interpreter Technician Associate Degree Program should be able to:

1. Demonstrate proper expressive ASL structures.
2. Demonstrate competency in receptive ASL skills.
3. Demonstrate a culturally sensitive attitude when involved with Deaf, Hard of Hearing, or hearing groups of people.
4. Differentiate the languages used by deaf/hard of hearing consumers.
5. Use adaptive equipment, e.g., TTYs, closed captioning, the relay service.
6. Follow the Code of Ethics for the sign language interpreter.
7. Identify the laws impacting the Deaf and interpreting communities.
8. Identify the differences between the interpreting and transliterating roles.

Interpreter Technician

Occupations for Associate Degree Graduates:

1. Interpreter for the Deaf-Staff
2. Interpreter for the Deaf-Freelance
3. Deaf Services Coordinator
4. Communication Assistant

Aptitude and Interests: Concentration, organization, patience, attention to detail, understand and interpret information rapidly, communication skills, flexible, able to adapt to changing environments, make decisions as to needs of both Deaf and hearing clients, work will independently, deal with pressure from conflict between cultures in professional manner, friendly, and open-minded.

Physical Requirements: Employers may place physical requirements on various jobs in this career field. Gateway Technical College strongly encourages you to investigate these requirements with employers to determine your employability before you enter into this program.

Helpful High School Courses: English, Psychology, Sociology, Algebra, Accounting, Sciences, Computers, Speech, Marketing.

	Course Name	Credits	Lec-Lab
Occupational Specific			
533-101*	Deafness/Introduction to	3	3 - 0
533-102*	ASL 1	4	3 - 4
533-103*	Practicum I *(Coreq. 533-102)*	3	2 - 4
533-104*	ASL 2 *(Prereq. 533-102, 533-103)*	4	3 - 4
533-105*	Cultural Sensitivity in Interpreting *(Prereq. 533-103)*	2	2 - 0
533-109*	Deaf Culture in America	3	3 - 0
533-106*	ASL Structure and Function *(Prereq. 533-104)*	3	3 - 0
533-107*	ASL 3/Introduction to Interpreting *(Prereq. 533-104)*	4	3 - 4
533-110*	ASL 4/Interpreting *(Prereq. 533-107)*	4	3 - 4
533-111*	Interpreter Practicum II *(Prereq. 533-105)*	3	1 - 8
533-112*	Professional Development for the Interpreter *(Coreq. 533-110)*	2	2 - 0
TOTAL REQUIRED		***35***	
Occupational Support			
804-160 #	College Mathematics *(Prereq. Satisfactory placement test score)*	3	3 - 0
533-108*	Alternative Communication Techniques & Adaptive Equipment for the Deaf	2	1 - 2
105-131 #	Microcomputers, Introduction to	3	2 - 2
533-120*	Interpreting: Sign to Voice *(Coreq. 533-110)*	3	2 - 2
TOTAL REQUIRED		***11***	
General Education Courses			
801-195#	Written Communication *(Prereq. Satisfactory placement test score)*	3	3 - 0
809-198#	Introduction to Psychology	3	3 - 0
801-196#	Oral Interpersonal Communication	3	3 - 0
801-198#	Speech	3	3 - 0
809-197#	Contemp. American Society/Multicultural	3	3 - 0
TOTAL REQUIRED		***15***	
Suggested Electives			
533-113	ASL Skillbuilding 1	1	0 - 2
533-114	ASL Skillbuilding 2	1	0 - 2
533-115	ASL Skillbuilding 3	1	0 - 2
533-116	ASL Skillbuilding 4	1	0 - 2
533-117	ASL Skillbuidling 5 (Prereq. 533-113, 533-114, 533-115, 533-116)	1	0 - 2
533-118	ASL Skillbuilding 6 (Prereq. 533-113, 533-114, 533-115, 533-116)	1	0 - 2
533-119	Interpreting: Oral	3	2 - 2
TOTAL REQUIRED		***6***	
PROGRAM TOTAL REQUIRED		**67**	

Note: Prerequisites can be waived with department approval
Any associate degree program course may be used as an elective.
**** Courses which may be taken prior to entry into program.***

Requirements for Graduation:

- 67 credits with an average of 2.0 or above
- An average of 2.0 ("C") or above for all 533-prefix courses.
- Must obtain Level I in Computer Literacy, meaning the following competencies: hands-on experience with machine operation, data input, screen display control, information updating, and use of disk memory.

Course Descriptions

ASL 1
This course will focus on intensive vocabulary development and basic ASL sentence structure. The students will begin to develop both expressive and receptive ASL skills.

ASL 2
This is a continuation in the development from phrases and simple sentences to complex structures. It will focus on the development of conversational ASL skills.

ASL 3/Introduction to Interpreting
This course will move from conversational ASL to beginning interpretation. Students will advance from complex structures to the appropriate use of ASL and English idioms.

ASL Structure and Function
This course is designed to expose the student to a comparison of the linguistic structure and function of American Sign Language. It will cover the study and use of phonemes and morphemes in ASL.

Cultural Sensitivity in Interpreting
This course will focus on the importance of understanding the cultural norms and values involved in any interpreting assignments. Students will learn how culture impacts the communication process and the importance of producing a culturally accurate interpreted message.

Deaf Culture in America
This course will expose the students to Deaf Culture since its beginnings in the United States. It will discuss famous Deaf Americans and how they have impacted the lives of Deaf and hearing people in America.

Interpreter Practicum I
This course will give the student an opportunity to observe a variety of ASL users in educational and/or social settings.

Occupational Therapist Assistant

The Occupational Therapy Assistant program is offered through a contractual agreement with Madison Area Technical College. General education courses may be taken at Blackhawk Technical College. All occupational specific/core courses must be taken through Madison Area Technical College.

Occupational therapy is a health profession serving persons whose everyday functioning is complicated by developmental disability, physical illness or injury, emotional problems, or aging changes. Occupational therapists use activities designed to:

1. Improve the physical, sensory, cognitive, social and emotional skills needed for daily activities
2. Offer alternative approaches and adaptive devices when such capacities are impaired or lost
3. Ultimately promote a healthy balance and maximum independence in each client's self-care, work and leisure performance This program prepares occupational therapy assistants who collaborate with occupational therapists. OT assistants are employed in community settings providing mental health, residential care and home health services as well as in hospitals and schools. Graduates also serve as activity directors conducting health maintenance activity programs for the elderly in senior centers, day-care centers and nursing homes. Students interested in enrolling in the Occupational Therapy Assistant program should contact the Blackhawk Technical College counseling office for admissions information.

	Course Name	Credits	Lec-Lab
Semester 1			
514-111	Therapeutic Skills I	2	2 - 2
514-148	Minor Media	1	1 - 2
801-151	Communication Skills I	3	3 - 0
806-107	Anatomy & Physiology I	4	3 - 2
809-199	Psychology of Human Relations OR	3	3 - 0
Semester 2			
514-112	Therapeutic Skills II	2	1 - 3
514-115	Developmental Principles	4	3 - 3
514-117	Biological Foundations of Human Perf.	2	1 - 3
514-120	Occupational Theory Process	4	2 - 6
514-149	Minor Media	1	1 - 2
801-152	Communication Skills II	3	3 - 0
809-133	Developmental Psychology	3	3 - 0
Semester 3			
514-105	Field Observation	2	2 - 2
514-125	Community Practice	3	2 - 3
514-130	Physical Rehabilitation Practice	4	2 - 6
514-135	Mental health Practice	4	2 - 6
514-140	Health Care System	2	2 - 0
514-150	Media & Skills	3	3 - 0
Semester 4			
514-160	Fieldwork I	5	0 - 20
514-165	Fieldwork II	5	0 - 20
514-170	Seminar/Practice & Management	2	0 - 4
	Elective	3	
Recommended Electives			
514-101	Introduction To Occupational Therapy	3	3 - 0
514-145	Recreation Practice	3	3 - 0
514-180	Special Problems	3	3 - 0

Course Descriptions

514-101 Introduction to Occupational Therapy **3 Credits**
This course introduces occupational therapy and the OT assistant's role. It includes medical terminology and abbreviations. ***Prerequisite: Occupational Therapy Course Prerequisites plus completion of 806-207 or concurrent enrollment in 514-111 and 514-148.***

514-105 Field Observation **2 Credits**
This course orients students to Level I and II Fieldwork. A 40-hour placement in an OT practice setting provides opportunities to observe and participate. It emphasizes developing basic competencies in professional skills, planning, and documentation. ***Prerequisites: First and second semester occupational therapy courses; concurrent enrollment in 514-130 and 514-135.***

514-111 Therapeutic Skills I **2 Credits**
This class increases self-awareness and develops the skills and attitudes needed for client and co-worker relationships. It emphasizes behavior change processes, interpersonal techniques, interviewing and use of self within dyadic contexts. ***Prerequisites: Occupational Therapy Course prerequisites, plus completion of or concurrent enrollment in 806-207.***

514-112 Therapeutic Skills II **2 Credits**
This class explores therapeutic use of self and group process. It emphasizes skills needed to plan, implement, and evaluate group activities. Group activities and leadership skills are used to meet therapeutic goals. ***Prerequisites: 514-111.***

514-115 Developmental Principles **4 Credits**
This class applies normal human development and related principles to analyze human performance, activities, and environments. It emphasizes specific client conditions and OT interventions related to practice with infants, children, and adolescents. ***Prerequisites: Occupational Therapy Course prerequisites plus completion of 806-207 or concurrent enrollment in 514-111 and 514-148.***

514-117 Biological Foundations of Human Performance **2 Credits**
This class studies anatomical and physiological foundations of sensorimotor and cognitive human performance, effects of dysfunction, and therapeutic interventions to enhance affected human performance. ***Prerequisite: 806-207.***

514-120 Occupational Therapy Process **4 Credits**
This course covers the OT assistant role at each stage of the OT process. It emphasizes screening and evaluation skills and introduces occupational therapy and activities services in geriatric settings as a part of a Level I Fieldwork placement. ***Prerequisite: 806-207.***

514-125 Community Practice **3 Credits**
This class emphasizes program planning, using community resources and developing educational experiences for clients, families, and peers. It includes interventions and resources for serving individuals with developmental disabilities in community, home, work, and institutional settings. ***Prerequisite: 514-115.***

514-130 Physical Rehabilitation Practice **4 Credits**
This class emphasizes OT evaluation and treatment of common medical conditions in physical rehabilitation. It covers prevention, maintenance, and rehabilitation. ***Prerequisites: 514-105 & 514-135.***

Occupational Therapist Assistant

514-135 Mental Health Practice **4 Credits**
This course emphasizes occupational therapy evaluation and therapeutic interventions to meet psychosocial needs and work with individuals affected by mental health conditions. It includes performance skills assessment, treatment planning, and intervention simulations. ***Prerequisites: 809-231 or 809-199, 809-237, 514-111, 514-112, & concurrent enrollment in 514-105 & 514-130.***

514-140 Health Care Systems **2 Credits**
This class examines medical, educational, and social models of service delivery from the perspective of the consumer, client advocate, and OT provider, and how these systems impact OT practice. ***Prerequisites: First semester Occupational Therapy courses and concurrent enrollment in 514-105 is recommended.***

514-145 Recreation Practice **3 Credits**
This class introduces leisure analysis and planning. Students practice organizing and conducting individual and group leisure activities for special populations. ***Prerequisites: 514-111, 514-112, & 514-115; completion of the first and second semester occupational therapy courses is recommended.***

514-148 Minor Media I **1 Credit**
This class develops needle art media skills used as therapeutic activities or leisure pursuits; introduces activity analysis and gradation; and explores various teaching/learning methods. ***Prerequisites: Occupational Therapy Course prerequisites plus completion or concurrent enrollment in 806-207.***

514-149 Minor Media II **1 Credit**
This class develops skills using a variety of craft media as therapeutic activities or leisure pursuits. It emphasizes teaching methods, activity analysis, and facility maintenance. ***Prerequisite: Completion of 514-148.***

514-150 Media and Skills **4 Credits**
This class refines skills used when analyzing, selecting, and performing activities with an emphasis on pediatric and mental health populations. It includes woodworking, leather work, ceramics, music, splinting, electric switch construction, and computer and assistive technology. Prerequisites: Completion of first and second semester occupational therapy courses. ***Students are encouraged to contact MATC for specific program information.***

MATC-BTC Program Equivalents
MATC OTA Requirements/Credits BTC Course
801-151 Communicate. Skills I–3 Cr
806-207 Anatomy & Physiology–4 Cr
809-199 Psych of Human Relations–3 Cr.
801-152 Communication Skills II–3 Cr.
809-237 Abnormal Psychology–4 Cr.
809-197 Contemporary American Society–3 Cr.

Equivalents/Credits
801-195 Written Communicate–3 Cr
806-195 Anatomy & Phys. I–4 Cr.
809-198 Intro to Psychology–3 Cr. OR
809-199 Psych of Human Relate–3 Cr.
801-196 Oral/Interpersonal Communication. .–3 Cr. OR
801-198 Speech–3 Cr.
809-195 Abnormal Psychology–3 Cr.
809-197 Contemporary American Society–3 Cr.

Business & Information Technology

- **Accounting** *(Associate Degree)**
- **Administrative Assistant** *(Associate Degree)**
- **IT-Micro Programmer Specialist** *(Associate Degree)*
- **IT-Network Specialist** *(Associate Degree)*
- **IT-Computer & Information Systems Security Specialist** *(Associate Degree)*
- **Legal Secretary** *(Associate Degree)*
- **Marketing** *(Associate Degree)**
- **Medical Administrative Specialist** *(Associate Degree)**
- **Supervisory Management** *(Associate Degree)**

*-short-term certificates available in these programs

Others--Certificate/Special Programs

- **Accounting Assistant Certificate**
- **Business Technology Certificate**
- **Customer Service Certificate**
- **Entrepreneurship in Small Business Certificate**
- **Management Development Certificate** *(18 or 33 credit options)*
- **Marketing Certificate**
- **Medical Office Specialist Certificate**
- **Promotion Certificate**
- **Transportation and Logistics Management Certificate**

Monroe Campus Programs

Accounting Assistant Certificate

- **Accounting** *(Associate Degree)*
- **Business Technology Certificate**
- **Childcare certification courses**
- **Computer Service Technician**
- **Emergency Medical Technician**
- **Industrial Engineering Certificate**
- **Management Development Certificate** *(18 & 33 credits)*
- **Medical Coding Certificate** *(One year technical diploma)*
- **Nursing** *(Associate Degree)*
- **Personal Care Worker**
- **Phlebotomy Certificate**
- **Skilled Nursing Assistant**
- **Supervisory Management** *(Associate Degree)*

Health, Human & Protective Services

- **Criminal Justice** *(Associate Degree)*
- **Culinary Arts** *(Associate Degree)*
- **Dental Hygiene** *(Associate Degree)*
- **Dental Assistant** *(One-Year Technical Diploma)*
- **Early Childhood Education** *(Associate Degree)*
- **Fire Science** *(Associate Degree)*
- **Medical Assistant** *(One-Year Technical Diploma)*
- **Nursing (RN)** *(Associate Degree)*
- **Physical Therapist Assistant** *(Associate Degree)*
- **Radiography** *(Associate Degree)*

Others--Certificate/Special Programs

- **Basic Police Recruit School**
- **Community Based Residential Facility** *(CBRF)* **Caregiver**
- **Emergency Medical Technician**
- **Food Service Aide**
- **Health Unit Coordinator**
- **Instructional Assistant**
- **Nursing Assistant**
- **Personal Care Worker**
- **Phlebotomy**

Offered in cooperation with Waukesha County Technical College (WCTC) /MATC-Madison/(GTC) Gateway:

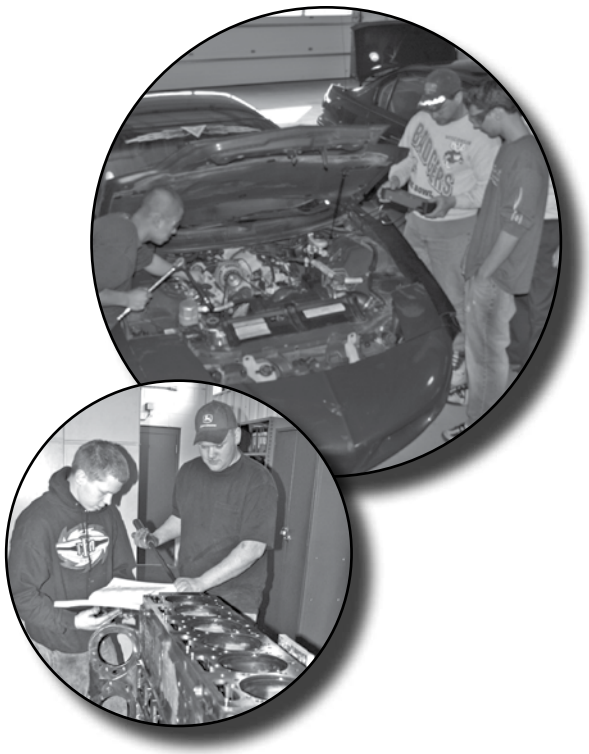
- **Clinical Laboratory Technician & Occupational Therapist Assistant** *(MATC)*
- **Dental Hygiene** *(WCTC)*
- **Physical Therapist Assistant** *(WCTC & MATC)*
- **Interpreter Technican** *(GTC)*

Manufacturing, Construction & Aviation

- **Air Conditioning, Heating & Refrigeration Technology** *(Associate Degree)*
- **Airframe & Powerplant Mechanics** *(Two-Year Technical Diploma)*
- **CNC Technician** *(Two-Year Technical Diploma)*
- **Computer Service Technician** *(One-Year Technical Diploma)*
- **Electric Power Distribution** *(One-Year Technical Diploma)*
- **Electro-Mechanical Technology** *(Associate Degree)*
- **Industrial Engineering Technician** *(Associate Degree)*
- **Industrial Mechanic** *(One-Year Technical Diploma)*
- **Mechanical Design Technology** *(Associate Degree)*
- **Welding** *(One-Year Technical Diploma)*

Transportation, Agriculture & Apprenticeship

- **Apprenticeship** *(Special Certification)*
- **Automotive Technician** *(Two-Year Technical Diploma)*
- **Diesel & Heavy Equipment Technician** *(Two-Year Technical Diploma)*
- **Farm Business and Production Management** *(Diploma Program)*
- **Landscape & Turf Services** *(Diploma Program)*
- **Technical Studies-Journeyworker** *(Associate Degree)*



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Diane Witkowski, Children's Learning Center Manager

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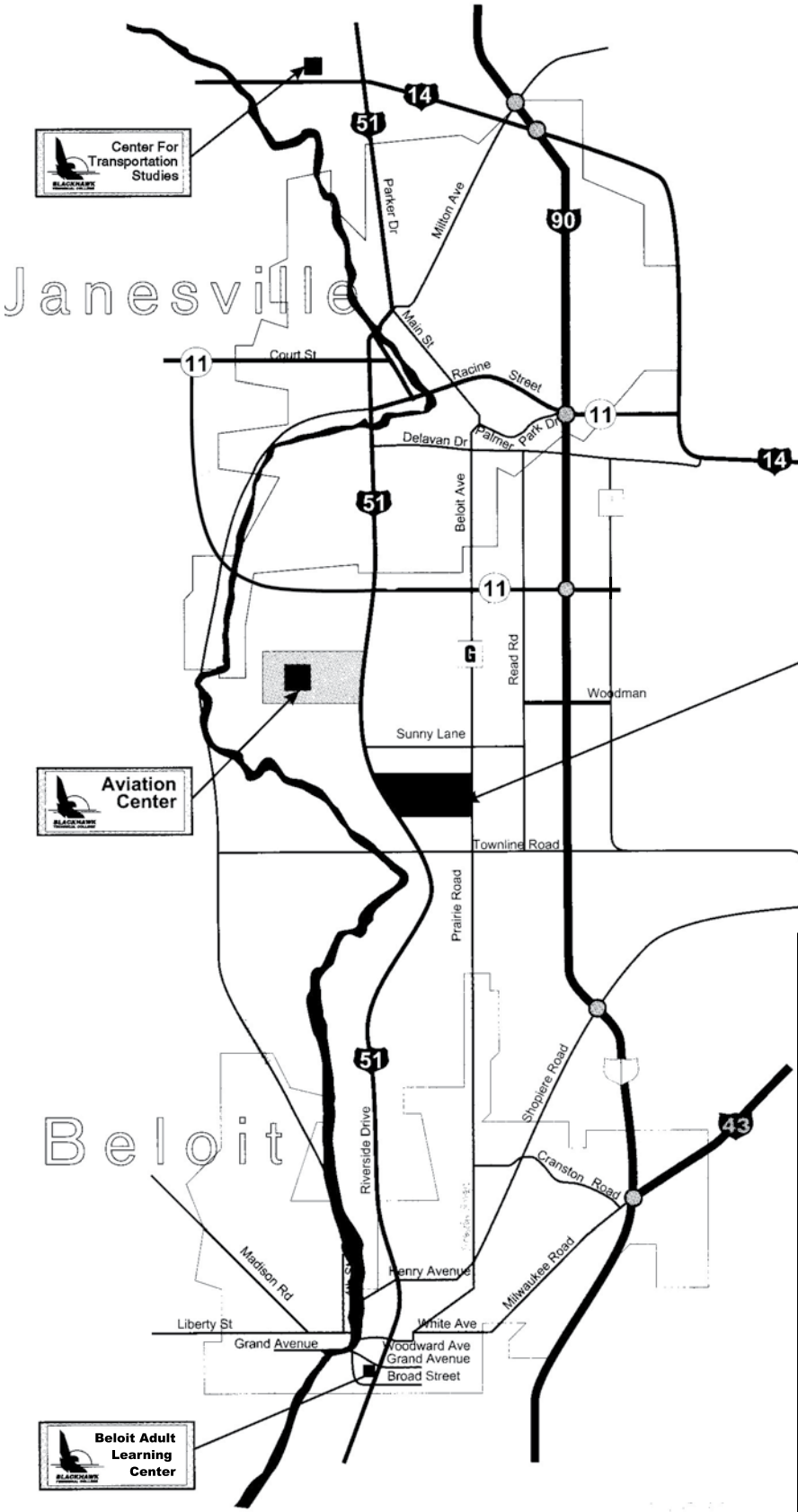
Michael Zawlocki, Automotive Technician Instructor–B.S., MS.Ed., Northern Illinois University

Hal Zenisek, Dean, Business & Information Technology–B.A., Illinois Wesleyan University; M.S., Northern Illinois University

Al Zimmerman, Diesel & Heavy Equipment Mechanics Instructor

James Zyla, Microcomputer Specialist Instructor



Central Campus
6004 Prairie Road
County Trunk G
Janesville

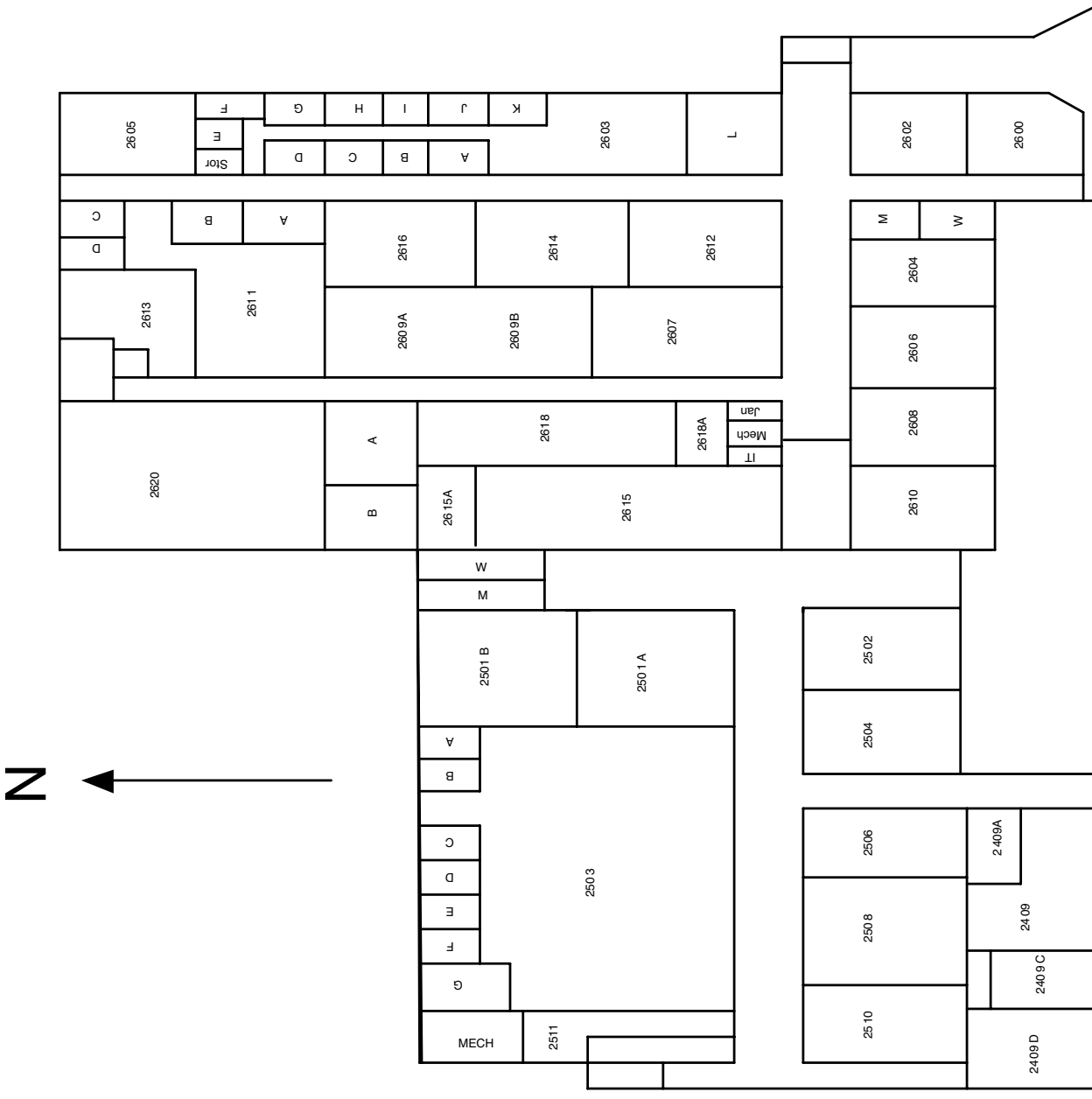
Aviation Center Southern WI Regional Airport
4618 South Columbia Drive
Janesville

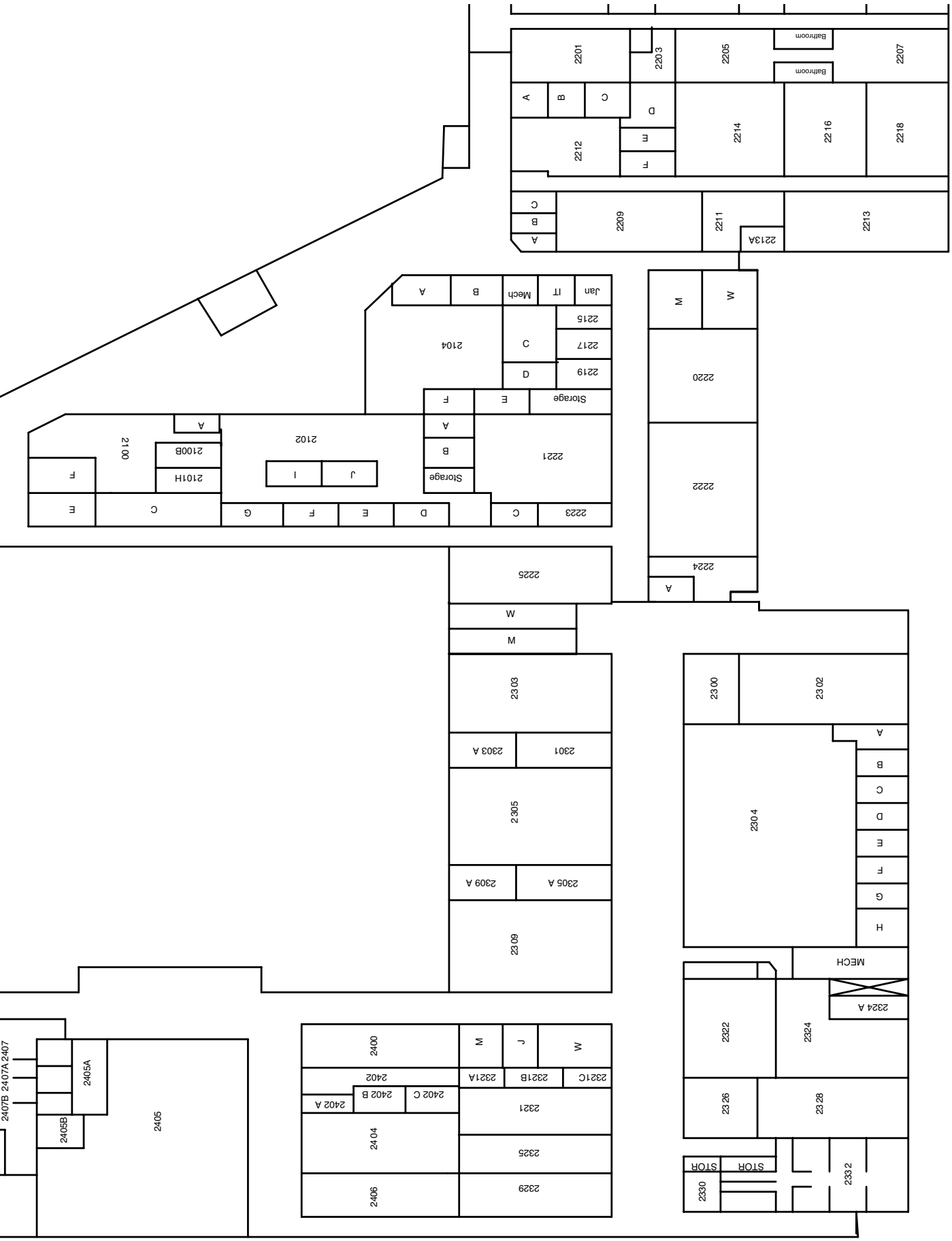
Center For Transportation Studies
1740 Highway 14 West
Janesville

Beloit Adult Learning Center
444 East Grand Ave.
(Lower Level)
Beloit

BLACKHAWK TECHNICAL COLLEGE

Central Campus Upper Level

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BLACKHAWK TECHNICAL COLLEGE

Central Campus Lower Level

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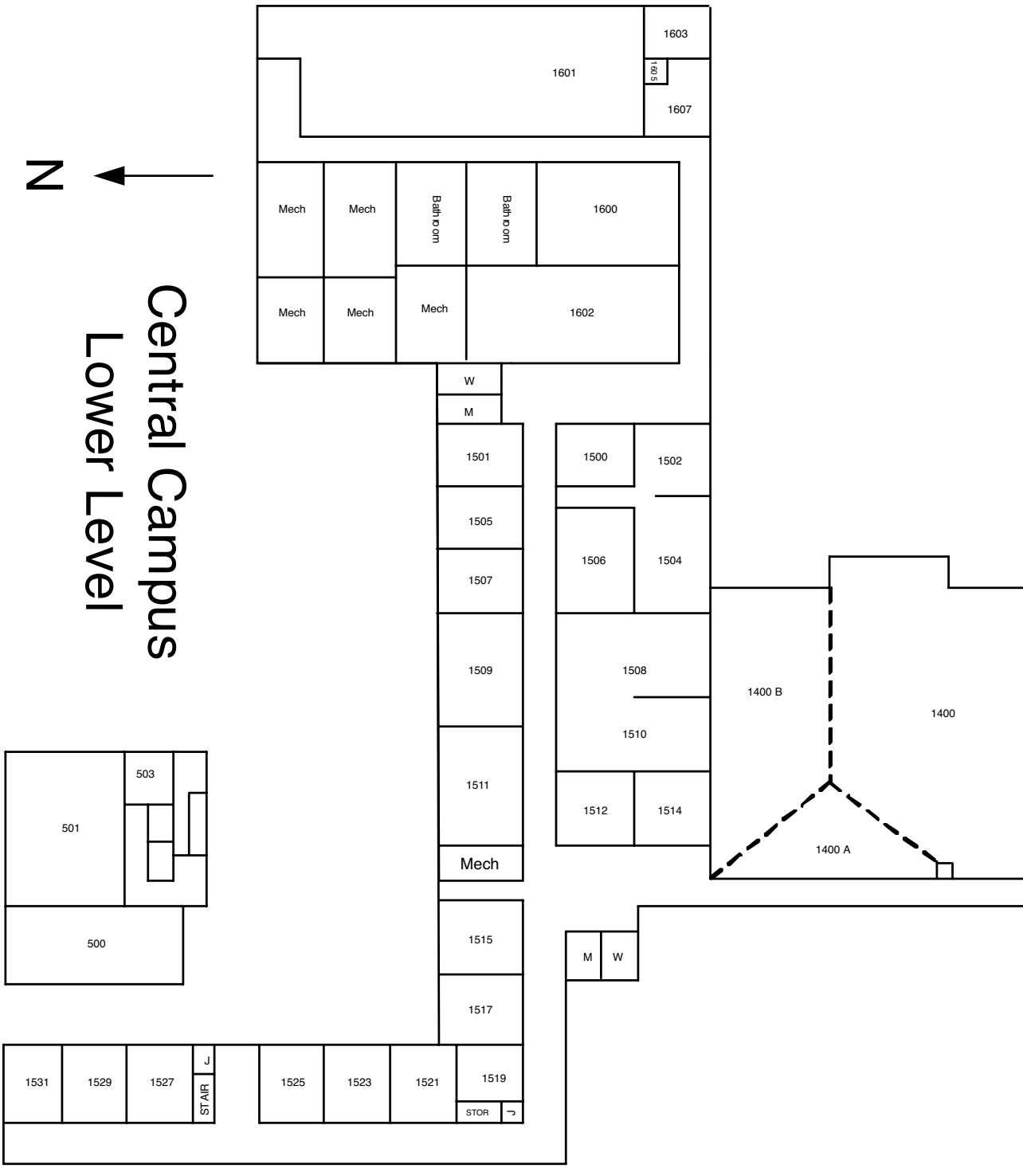


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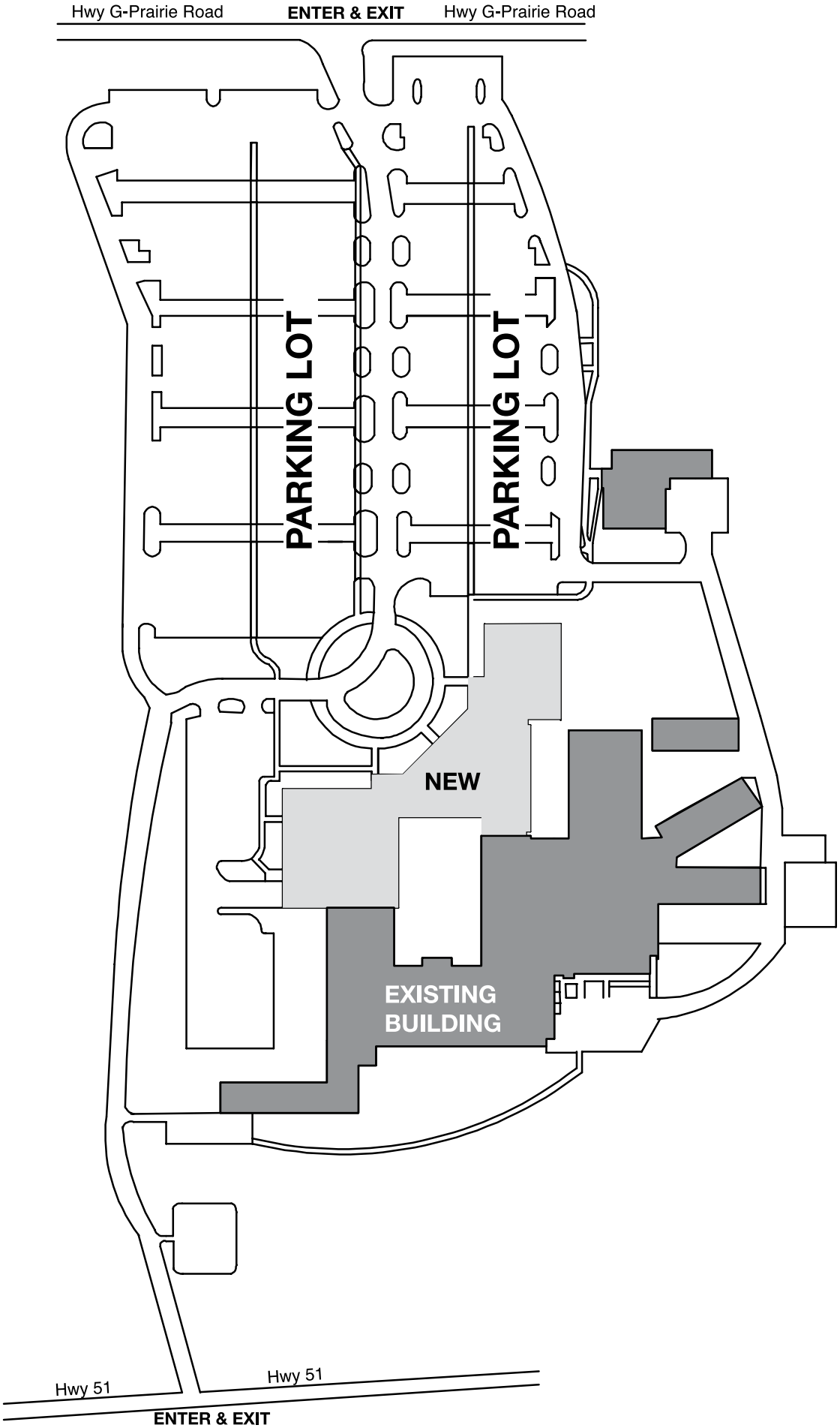
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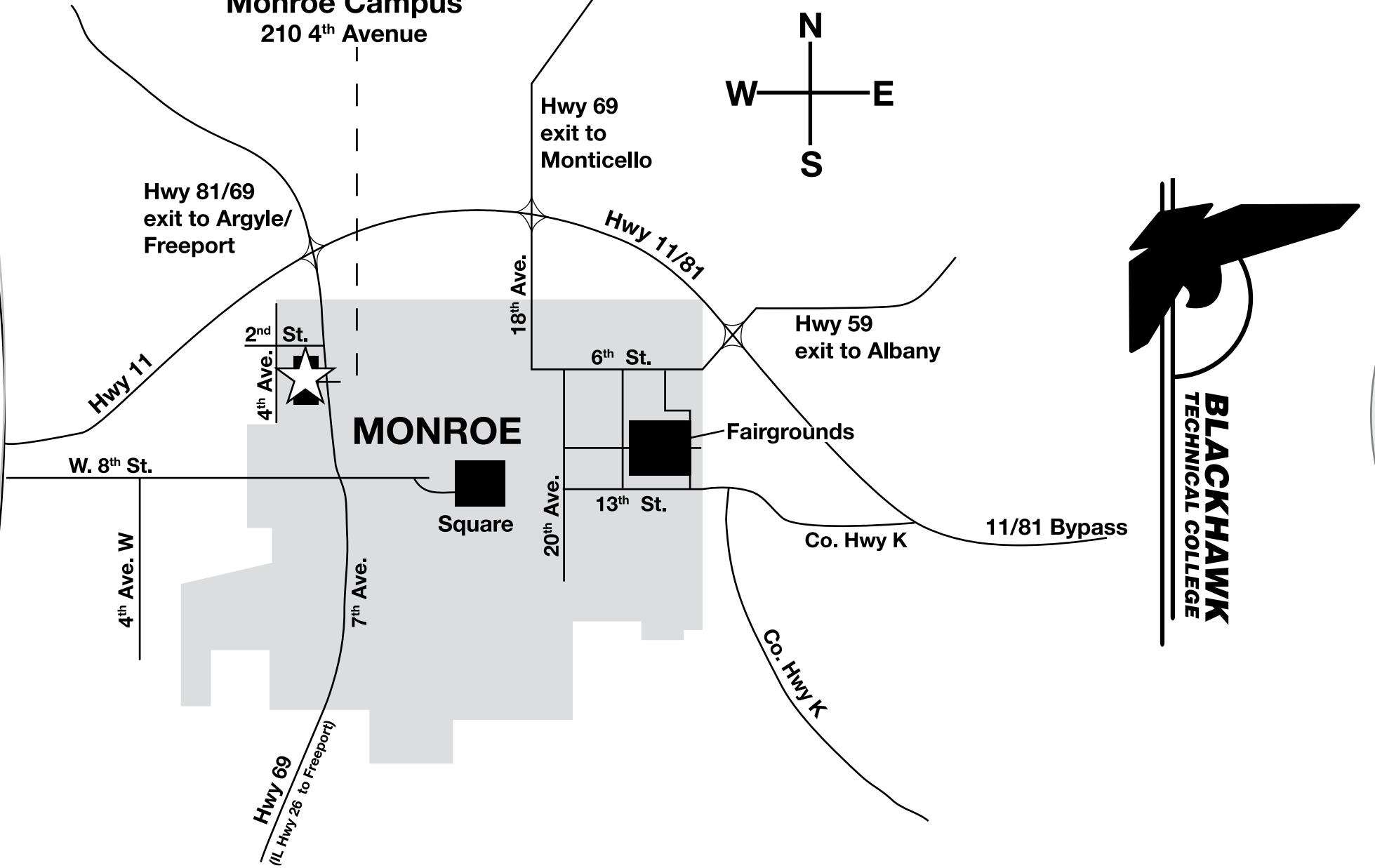
PARKING LOT
NEW
EXISTING BUILDING
Hwy 51
Hwy 51
ENTER & EXIT

Blackhawk Technical College

Monroe Campus

210 4th Avenue



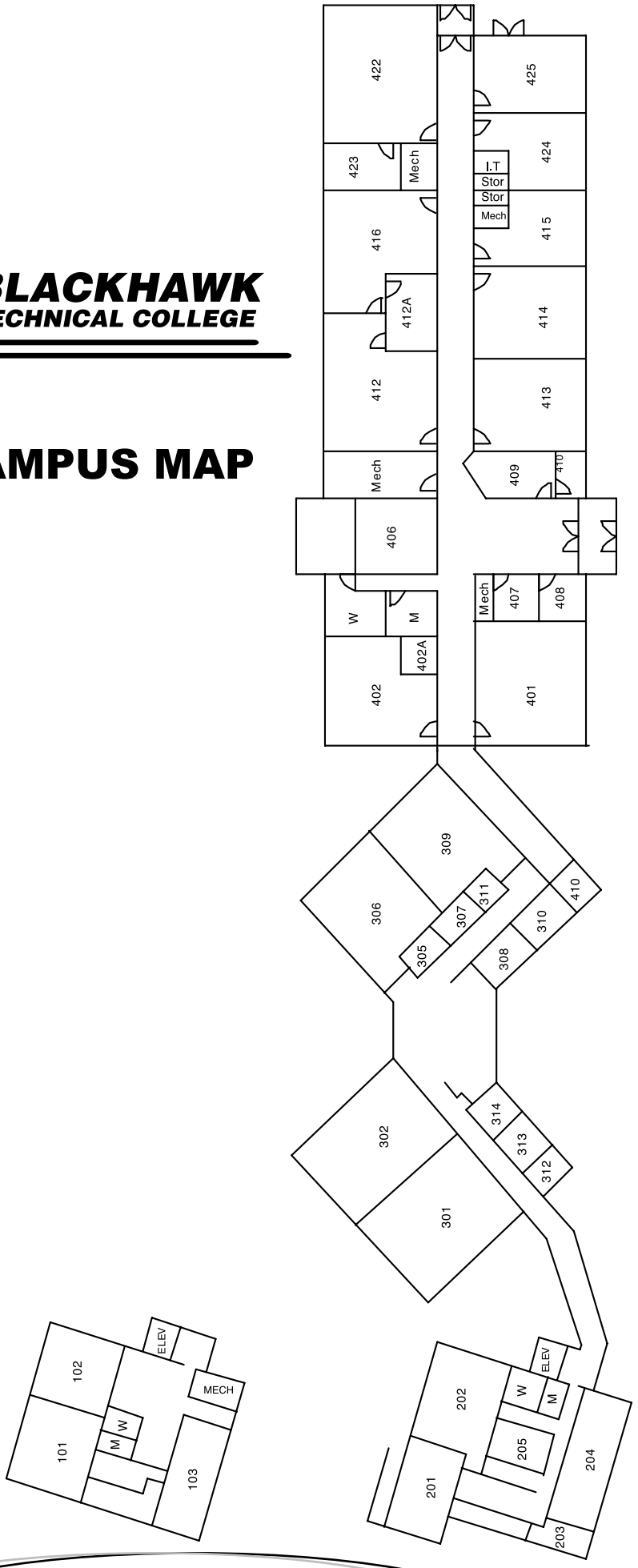
BLACKHAWK TECHNICAL COLLEGE

Visit us on the web at: www.blackhawk.edu

CAMPUS MAPS

BLACKHAWK TECHNICAL COLLEGE

MONROE CAMPUS MAP



NEW AND RENOVATED FACILITIES AT BTC'S CENTRAL CAMPUS & MONROE CAMPUS

The construction and renovation project at Blackhawk Technical College's **Central Campus is scheduled for completion in early August, 2005,** in time for classes which start on August 22, 2005. Students and staff will welcome a beautiful functional facility that will lend itself very nicely to a learning environment.

yet

Central Campus

With BTC's **Monroe Campus** project having been completed and ready for classes in January, 2005, most of the College's facilities have been improved over the past three to four years, including the Center for Transportation Studies (CTS Campus, formerly titled the North Rock County Center), and the Beloit Adult Learning Center. BTC's Monroe Campus project just about doubled the space available at that facility, and the Central Campus project adds about 90,000 square feet to the already-existing campus.

The building and renovation at the Monroe Campus has allowed the College to offer a full nursing program at that site, along with a computer service technician program plus additional classes and services such as a Learning Resources Center.

The new construction at the Central Campus has allowed BTC to increase its offerings in health occupations, protective services such as criminal justice and EMT, and the consolidation of program areas, a children's learning center, and the offering of expanded services and potential new services in the future, such as a Medical Diagnostic Sonography program, Police Recruit School, and more.

An **Open House** has been set for the **Central Campus on Saturday, September 17** between **1 and 4 p.m.** ***All are invited out to see this wonderful new facility!***

Monroe Campus

BLACKHAWK
TECHNICAL COLLEGE

307-115	Early Childhood Practicum II	76
307-116	Building Partnerships in Early Childhood Education	76
307-117	Children With Special Needs	76
307-118	Child Guidance	76
307-119	Early Childhood Practicum III	76
307-122	Diversity in Early Childhood	76
307-123	Administration of Early Childhood Programs	76
316-103	Food Service Industry & Menu Design	66
316-104	Orientation to Quantity Food Prep.	66
316-108	Food Science I	66
316-109	Quantity Production of Soups, Sauces, Salads & Dressings	66
316-114	Quantity Production of Entrees, Vegetables	66
316-115	Nutrition	66
316-119	Baking for Chefs	66
316-125	Beverage Management	66
316-131	Management of Short Order Service	66
316-136	Catering/Special Events/Contract Food Service	66
316-142	Ice Sculpturing/Decorative Food Display	66
316-159	Food Purchasing, Inventory & Cost Control	67
316-160	Gourmet Stocks Sauces	67
316-165	Gourmet Foods	67
316-166	Specialized Foods	67
402-305	Aviation Basic Science I	50
402-306	Aviation Basic Electricity	50
402-307	Materials and Processes I	51
402-308	Aircraft Metal Structures	51
402-309	Basic Turbine Engines	51
402-334	Aviation Basic Science II	51
402-335	Aircraft Systems I	51
402-336	Aircraft Electrical Distribution Systems	51
402-337	Materials and Processes II	51
402-338	Nondestructive Inspection Techniques	51
402-339	Turbine Engine System	51
402-344	Aircraft Assembly and Rigging	51
402-345	Aircraft Propellers	51
402-347	Aircraft Non-metal Structures	51
402-348	Basic Reciprocating Engines	51
402-349	Advanced Turbine Engines	51
402-390	Aircraft Landing Gear	52
402-391	Aircraft Systems II	52
402-392	Aircraft Electronics	52
402-393	Reciprocating Engine Systems	52
402-394	Advanced Reciprocating Engines	52
402-395	Aircraft Inspection	52
404-338	Service Fundamentals	54
404-339	Engine Service	54
404-341	Engine Performance Testing I	54
404-342	Heating and Air Conditioning Service	55
404-343	Automotive Machine Shop	55
404-344	Electrical Service I	55
404-345	Brake Service	55
404-346	Steering and Suspension Service	55
404-347	Drive Train Service I	55
404-348	Service Simulation	55
404-349	Service Management	55
404-350	ASE Certification Review	55
404-351	Electronic Engine Control Fund.	55
404-352	Computerized Fuel Systems Service	55
404-353	Emission Control Service & Cert.	55
404-354	Engine Performance Testing II	55
404-355	Drive Train/Transaxle Service II	55
404-356	Electrical Service II	55
404-357	Electronic Engine Control Diagnosis	55
404-358	Service Internship	55
412-304	Diesel Fuel Systems	74
412-310	Brake Service	74
412-311	Steering and Suspension	74
412-342	Electrical Systems Troubleshooting	74
412-344	Hydraulic Systems Troubleshooting	74
412-347	Inspection and Maintenance Proced.	74
412-349	Equipment Welding	74
412-350	Diesel Engine Overhaul	74
413-301	Electric Power Distribution I	77
413-302	Electric Power Distribution II	77
413-303	Industrial Electricity for Line Technicians	77
413-304	Safety Procedures 1-Line Technician	77
413-305	Safety Procedures II – Line Technicians	77
420-109	Basic Machining	109
420-310	Machine Shop Fundamentals	130
421-380	Blueprint Reading (Welding)	130
421-385	Blueprint Reading	57
421-390	Blueprint Reading - Maintenance	89
422-100	Metallurgy	88
442-305	Metal Fabrication	130
442-306	Welding Processes and Safety	130
442-307	Gas Metal Arc Welding (GMAW)	130
442-308	Flux Cored Arc Welding (FCAW)	130
442-309	Industrial Welding Procedures, Codes and Specifications	131
442-310	Shielded Metal Arc Welding (SMAW) (Non Low Hydrogen)	131
442-311	Shielded Metal Arc Welding (Low Hydrogen) (SMAW)	131
442-312	Gas Tungsten Arc Welding (GTAW)	131
444-300	Shop Computing	57
444-301	Metrology	57
444-302	Semi-Precision Machining	57
444-303	Turning Fundamentals	57
444-304	GD&T Interpretations	57
444-305	Milling Fundamentals	57
444-306	Turning Applications	57
444-307	Manufacturing Support Systems	57
444-308	Milling Applications	57
444-309	CNC Fundamentals	58
444-310	Grinding & Gear Techniques	58
444-311	CNC Turning - Operations	58

444-312	CNC Turning-Operations & Programming 1	58
444-313	Tooling and Workholding	58
444-314	CMM Techniques	58
444-315	CNC Milling - Operations	58
444-316	CNC Milling - Operations & Programming 1	58
444-318	CNC Milling - Operations and Programming 2	59
444-319	CNC Turning - Operations & Programming 2	59
444-320	CNC Milling - Operations and Programming 3	59
444-321	Basic CAD/CAM	59
444-324	Intermediate CAD/CAM	59
444-325	CNC Technician Internship	59
450-315	Customer Service Fundamentals	61
450-315	Customer Service Fundamentals	55
450-316	Microcomputer Software Service	61
450-317	Troubleshooting Microcomputer	61
450-319	Microcomputer Peripherals	61
450-320	Troubleshooting Communications Systems	61
450-321	Troubleshooting Network Hardware	61
450-322	Service Support Techniques	61
462-300	Electricity for Industrial Maintenance	89
462-305	Maintenance Welding	90
462-310	CNC Machining for Industrial Maintenance	90
462-315	Industrial Maintenance Hydraulics	90
462-320	Advanced Manufacturing - Drives & Linkages	90
462-325	Machine Rigging	90
462-330	Motors and Controls	90
462-335	Refrigeration Fundamentals for Maintenance	90
501-101	Medical Terminology	85, 114
501-101	Medical Terminology	115
501-104	Principles of Customer Service in Health Care	85
501-107	Introduction to Computing for Healthcare	114
501-107	Introduction to Computing for Health Care	85
503-108	Building Construction & Fire Ordinances	83
503-109	Chemistry of Hazardous Materials	83
503-113	Supervisory Techniques-Fire Science	83
503-115	Handling Hazardous Materials	83
503-117	Fire Prevention Systems	84
503-118	Fire Suppression	84
503-122	Fire Service Hydraulics	84
503-126	Fire Department Administration	84
503-135	Fire/Arson Investigation	84
503-144	Directed Independent Research I	84
503-146	Directed Independent Research II	84
503-148	Tactical Problems & Disaster Planning	84
503-150	Personnel Management for Fire Service	84
504-102	Police Issues and Functions	63
504-112	Criminal Investigation Theory	63
504-118	Procedures in Interviewing	84
504-118	Professional Police Communications	63
504-119	Introduction to Probation and Parole	63
504-121	Criminal Law	64
504-122	Juvenile Law	64
504-124	Police Organization and Administration	64
504-136	Constitutional Law	64
504-136	Rules of Evidence	84
504-137	Introduction to Corrections	64
504-141	Report Writing	64
504-142	Advanced Report Writing	64
504-165	Community Policing Strategies	64
504-170	Criminal Justice Internship	64
504-176	Criminal Justice Module	64
508-101	Dental Health Safety	68, 71
508-102	Oral Anatomy, Embryology, & Histology	71
508-103	Dental Radiography	69, 71
508-105	Dental Hygiene Process I	71
508-106	Dental Hygiene Process II	71
508-107	Dental Hygiene Ethics & Professionalism	71
508-108	Periodontology	71
508-109	Cariology	71
508-110	Nutrition and Oral Health	71
508-111	General and Oral Pathology	72
508-112	Dental Hygiene Process III	72
508-113	Dental Materials	68, 72
508-114	Dental Pharmacology	72
508-115	Community Dental Health	72
508-116	Dental Pain Management	72
508-117	Dental Hygiene Process IV	72
508-120	Dental Office Management	69
508-302	Dental Chairside	68
508-304	Dental and General Anatomy	68
508-306	Dental Assistant Clinical	69
508-307	Dental Assistant Professionalism	69
508-308	Dental Chairside-Advanced	69
508-309	Dental Lab Procedures	69
508-310	Dental Radiography-Advanced	69
508-311	Dental Assistant Clinical-Advanced	69
509-301	Medical Assistant Administrative Procedures	114
509-302	Human Body in Health and Disease	114
509-303	Medical Assistant Laboratory Procedures 1	114
509-304	Medical Assistant Clinical Procedures 1	114
509-305	Medical Assistant Laboratory Procedures 2	114
509-306	Medical Assistant Clinical Procedures 2	114
509-307	Medical Office Insurance and Finance	114
509-308	Pharmacology for Allied Health	114
509-309	Medical Law, Ethics and Professionalism	114
509-310	Medical Assistant Externship	114
510-301	Health Unit Coordinator Procedures I	85
510-302	Health Unit Coordinator Procedures II	85
510-303	Health Unit Coordinator Clinical	85
513-110	Basic Lab Skills	140
513-111	Phlebotomy	140
513-113	Laboratory Quality Assurance & Math	140
513-114	Urinalysis	141
513-115	Basic Immunology Concepts	141
513-120	Basic Hematology	141
513-121	Coagulation	141
513-122	Introduction to Blood Bank	141
513-123	Advanced Blood Bank	141