Northwestern Technical College

Catalog

2004 | 2006

NORTHWESTERN TECHNICAL COLLEGE
2004-2006 CATALOG

Northwestern Technical College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Ga., 404-679-4501) to award the Associate Degree in Nursing, the Associate of Applied Technology Degree, the Diploma, and the Technical Certificate.

AFFILIATIONS

Accreditation Council for Occupational Therapy Education
Alliance for Community College Innovation
American Association of Medical Assistants, Inc.
American Library Association
American Technical Education Association
Associate Member, American Association of Community Colleges
Liaison Council on Certification of Surgical Technologists
Business Council of Georgia
DTAE Technical Library Council
Electronics Technicians Association
CISCO Local Academy
Georgia Association of Collegiate Registrars and Admissions Officers
Georgia Association of Student Financial Aid Administration
Georgia Board of Examiners of Licensed Practical Nursing
Georgia Industrial Developers Association
Georgia Library Association
Georgia Motor Trucking Association
Microsoft Authorized Academic Training Program College
National Center for Occupational Education
North Georgia Area Library Association
Authorized Prometrics Testing Center
Sun Microsystems

ADDRESS:
NORTHWESTERN TECHNICAL COLLEGE
P.O. BOX 569
265 BICENTENNIAL TRAIL
ROCK SPRING, GA 30739

PHONE:
(706) 764-3510 OR 1-800-735-5726

WEB SITE:
WWW.NORTHWESTERNTECH.EDU

Northwestern Technical College is an operating Unit of the Georgia Department of Technical and Adult Education and is an Equal Educational Opportunity Institution.
This catalog is current as of its printing.

History of Northwestern Technical College

Northwestern Technical College was founded by an Act of the Georgia General Assembly in 1964. The original facility, now the 100 building on the main campus, first housed classes in the fall of 1966. Then known as the Walker County Area Vocational-Technical School, it offered diplomas in eight programs of instruction to 150 students. Governed by the Walker County Board of Education, the school served Walker, Chattooga, Catoosa and Dade Counties.

In 1988, ownership of the college was transferred by the Walker County Board of Education to the Georgia Department of Technical and Adult Education, and the name was changed to Walker Technical Institute.

To meet the needs posed by growing demand in the community, the college earned the authority to grant the academic degree of Associate of Applied Technology in 1992. 1998 brought a change in the college's name to Northwestern Technical Institute, in order to more accurately reflect the service area encompassed by the school.

In the year 2000, there was another name change, this time to Northwestern Technical College. This name is intended to show not only the service area of the college, but also the growing academic opportunities available to its students. Northwestern now offers 19 degree options, along with 23 diplomas and 45 certificates of credit, to over 2,500 students.

Disclaimer/Equal Opportunity Statement

The contents of this catalog do not constitute a contract between Northwestern Technical Catalog and its students on either a collective or individual basis. It represents Northwestern Technical College's best academic, technical, social, and financial planning information at the time the catalog was published. Courses and curriculum changes, modifications of fees, and other changes, plus unforeseen changes in other special aspects of Northwestern Technical College's life sometimes occur after the catalog has been printed, but before the changes can be incorporated in a later edition of the same publication. Because of this, Northwestern Technical College does not assume contractual obligation with students for the contents of this catalog.

Northwestern Technical College is an equal opportunity educational institution and welcomes applications for employment and education programs from all individuals regardless of race, color, religion, sex, disability, age, or national origin. Northwestern Technical College is non-discriminatory on the basis of sex in its educational programs and activities, including employment and admission of students to the college as required by Title IX of the Educational Amendments of 1972 and by rules and regulations based therein and published as 45 CFR part 86.

Northwestern Technical College complies fully with the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 and does not discriminate against individuals with disabilities.

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General Information and Policies

Vision

Northwestern Technical College is a higher education institution of the Georgia Department of Technical and Adult Education and the primary provider of accessible, high quality educational opportunities in Northwest Georgia. It is an integral component of a seamless educational system offering programs of study that result in the student's achievement of career and personal goals. Northwestern provides educational experiences that produce graduates noted for their excellence as employees and as lifelong learners.

Mission

The mission of Northwestern Technical College is to offer accessible and high quality educational opportunities that lead to careers in technology, business, health care, and human services. The college offers both campus-based and distance learning programs that lead to the certificate, the diploma, and the associate degree. The educational programs of the college focus on the development of technical competence and critical thinking skills; social, personal, and intellectual values; and an understanding of society. Northwestern Technical College also provides the community with adult literacy, economic development, and personal enrichment programs. The Office of the President and the offices of Student Services, Administrative Services, Academic Affairs, and Economic Development work cooperatively in support of the college's mission.

Location

Northwestern Technical College is located in Rock Spring, Ga., on U.S. Highway 27, six miles north of LaFayette, Ga. and 10 miles south of Chickamauga, Ga.

Advisory Committees

Advisory committees, composed of outstanding representatives from business and industry, meet with college personnel to make recommendations, offer suggestions, and assist in evaluating programs. They meet at least twice a year.

Bookstore

Northwestern Technical College contracts with Davies Higher Education Services to provide a full service book and supply store for students. The "Campus Shop," located adjacent to the cafeteria, carries textbooks, paperback books, office supplies, and other products.

Health Care

Any student with a health condition such as diabetes, hemophilia, epilepsy, or any other potentially dangerous ailment should inform his or her instructors and register the condition with the Student Services Office. Applicants must be able to attend class regularly and to perform essential class and laboratory functions.

Emergency Closing

The President and the Vice President of Academic Affairs are authorized to take action to close the college if conditions exist that may threaten the health and safety of students and personnel. They are also empowered to delay the beginning of classes and/or release students and personnel before the normal day ends if hazardous conditions exist. Closures or delayed openings will be announced by local radio stations and major Chattanooga area television and radio stations. The college does not announce that it is open.

Main Campus

The main campus consists of six modern buildings providing administrative and faculty offices, classrooms, laboratories, shops, a cafeteria, and the library. The campus has over 100,000 feet of assignable space. As of this catalog's printing, a seventh building of 45,000 square feet is under construction.

Family Educational Rights and Privacy Act of 1974

The Family Educational Rights and Privacy Act of 1974 (FERPA), with which Northwestern complies fully, was designated to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide the guidelines for the correction of inaccurate or misleading data through formal and informal hearings. Students also have the right to file complaints with the FERPA office concerning alleged failures by the college to comply with the Act.

Directory Information

Directory information is treated as public information and is generally available for all students and former students at the college's discretion. Directory information includes a student's: name, address, telephone number, date and place of birth, major field of study, age, schools previously attended, awards applied for and/or received, dates of attendance, degrees, honors, and participation in officially recognized activities and sports.

Any student who does not wish their directory information to be disclosed must file a written request with the Vice President of Student Services. Questions concerning FERPA may be referred to the Registrar's Office.

Photography Policy

Northwestern makes photographs of its students for various purposes, and uses and disseminates said photographs in magazines, brochures, webpages, and newspapers without regard to whether the college is compensated for the photographs. Students agree to release, indemnify, and waive Northwestern Technical College harmless from and against any claims, damages, action, liability, and expense in connection with the use of such photographs. Students who do not wish their photographs used by the college must file a written request with the Director of Public Relations and Marketing.

Statement of Non-Discrimination

Northwestern Technical College is committed to the concept of an open door policy and equal educational opportunity. The college supports the Civil Rights Act of 1964, Executive Order 11246, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 as amended, and the Americans with Disabilities Act of 1990. No person shall, on the basis of age, race, religion, color, sex, national origin, or disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity at Northwestern Technical College.

General Regulations

It is a basic and fundamental responsibility of the college to maintain order through reasonable policies and procedures. The filing of an application shall be regarded as evidence of the applicant's intention to abide by the standards and regulations of Northwestern Technical College. Students forfeit their right to remain at the college if they fail to comply. A Student Conduct Code, including a statement on student rights and responsibilities, may be found in the Student Handbook.

Student Responsibilities

Students are responsible for being informed of all policies and procedures required for continued attendance at Northwestern Technical College. Policies and procedures are generally found in this catalog and in the Student Handbook. Other policies pertaining to specific student rights and responsibilities are found in the college Policies and Procedures Manual located in the library. This document is available for reference at any time. The college's regulations will not be waived because a student pleads ignorance of established policies and procedures. A student who is unsure of any policy or procedure should seek clarification from the Student Services Office.

Change of Name or Address

Students are responsible for notifying the Records Office of any change of name or address. The mailing of notices to the last address on record constitutes official notification.

State Standards

As a higher education institution of the Georgia Department of Technical and Adult Education, Northwestern Technical College adheres to the policies, procedures, and achievement criteria as established and presented in the state curriculum standards documents. The standards serve as a benchmark for providing high quality technical training that meets the needs of business and industry not only today but in the future as the changes in our society continue to alter the nature of the workplace. Standards mean that educational partners in business and industry can rely on our graduates to have the knowledge and technical expertise to perform their jobs to world-class standards.

Guarantee

The Georgia Department of Technical and Adult Education has developed curriculum standards with direct involvement of business and industry. These standards serve as the industry-validated specifications for each occupational program. The standards allow Northwestern Technical College to offer this guarantee: "If one of our graduates who was educated under a standard program and his or her employer agree that the employee is deficient in one or more competencies as defined in the standards, Northwestern Technical College will retrain that employee at no instructional cost to employee or employer." This guarantee applies to any graduate of the college who is employed in the field of his or her training. It is in effect for two years after graduation. To inquire or file a claim under this warranty, please call the Academic Affairs Office.

Drugs and Alcohol

Northwestern Technical College prohibits the unlawful possession, manufacturing, distribution, dispensation, and use of illicit drugs and alcohol on the institutional premises or at college-sponsored events in accordance with the Alcohol and Drug Free Schools and Communities Act Amendments of 1989 (Public Law 101-226).

In compliance with the Federal Drug Free Schools and Communities Act Amendments of 1989, Section 22, the college implements and maintains a drug free program. The Act ensures the prevention of the use of illicit drugs, and abuse of alcohol by students. Students indicted for possession or sale of illegal drugs, alcohol, and/or other altering substances will be suspended from school and forfeit all claim to financial aid.

Campus Security Policies and Crime

Title 11 of Public Law 542 is the Crime Awareness and Campus Security Act of 1990. As a condition of continued participation in the Title IV student financial assistance programs, the Act requires Northwestern Technical College to prepare, publish, and distribute certain policies and information to all current students and employees and to any applicant for enrollment or employment upon request beginning Sept. 1, 1992 and each year thereafter. This includes information on criminal actions or other emergencies occurring on campus and the college's response, current policies concerning security and access to campus facilities, and recent statistics on criminal offense reported to local police agencies. The college makes statements of policy regarding the possession, use, and sale of alcoholic beverages and the possession, use and sale of illegal drugs.

Northwestern Technical College's Campus Security Policy and Crime Statistics Report is distributed to all prospective and current students and employees and is available upon request from the Business Office. Complete statistics are available from the Admissions Office.

Health and Safety

The Northwestern Technical College campus has first aid kits that meet OSHA standards. First aid kits are conveniently located in shops and labs and in public areas in each building. Students are referred to off-campus facilities for treatment of injuries or illnesses. Medical care at off-campus facilities is the student's financial responsibility. The college provides a student accident insurance plan for credit students that is especially designed for students of community and technical colleges. Complete details of the coverage may be obtained from the Registrar's Office.

Sexual Harassment Policy

The Department of Technical and Adult Education does not tolerate sexual harassment. Sexual harassment is a form of discrimination and is a violation of state and federal law. It is the intent of the State Board of Technical and Adult Education to provide an academic and work environment free of any type of harassment, including sexual harassment, for all students and employees. Complete information is available in the Student Handbook.

Conduct

Northwestern Technical College students have an obligation to assist in making the college an effective place for the transmission of knowledge, the pursuit of truth, the development of self, and the improvement of society. As citizens, students enjoy the freedoms that other citizens enjoy and in turn they are responsible for conducting themselves in accordance with the requirements of the law. Students must adhere to all rules, regulations, and policies of the college and must also adhere to student conduct regulations as published in the Student Handbook provided to all students. Students who violate the student conduct regulations are subject to disciplinary proceedings as prescribed in the Student Handbook and other publications for students.

Tobacco Use Policy

In the interest of health and to create a tobacco-free environment, the use of tobacco is expressly prohibited in all buildings. Individuals who wish to use tobacco must do so only in designated smoking areas. Designated areas for the use of tobacco products have been established outside of campus buildings.

Student Parking

The college has designated areas for student parking. All full- and part-time students are required to display a campus parking permit in the lower left- hand portion of the rear window of their vehicle and to park in designated areas. There is no charge for the parking permit. Not properly displaying a parking permit or parking in an unauthorized area may result in the vehicle being towed. Parking permits are distributed at registration.

Weapons Policy

It is unlawful for an individual to bring to, possess, or have under such person's control any explosive compound, firearm, or knife designed for the purpose of offense or defense while at a public gathering (OCGA 16.11.1127). Having a license to carry a pistol is no justification under this policy. It is unlawful for any person to carry, possess, or have under such person's control while withing a school safety zone or at a college building, function, or property, or on a bus or any other transportation provided by the college any weapon or explosive compound.

The term "weapon" means and includes any pistol, revolver, or any weapon designed or intended to propel a missile of any kind, or any dirk, Bowie knife, switchblade knife, ballistic knife, any other knife having a blade of three or more inches, straight-edged razor, spring stick, metal knucks, blackjack, any bat, club, or other bludgeon-type weapon, or any flailing instrument consisting of two or more rigid parts connected in such a manner as to allow them to swing freely, which may be known as a nunchaku, shuriken, or fighting chain, or any disc of whatever configuration, having at least two points or pointed blades which is designed to be thrown or propelled and which may be known as a throwing star, oriental dart, or any other weapon of like kind, any stun gun or laser. "Weapon" does not include any fireworks the possession of which is regulated by Chapter 10 or Title 25 of Georgia Law.

This policy exempts law enforcement officers, judges, magistrates, solicitors, district attorneys, and employees of the department of corrections, or employees of local or federal correctional facilities who are authorized to carry a firearm. Also exempt are persons employed as campus police or security officers who are authorized to carry a weapon in accordance with Chapter 8, Title 20, and private detectives or security agents who hold firearms permits issues by the Georgia Board of Private Detective and Security Agencies. Also exempt is any legal weapon carried in a locked container, locked compartment, or locked gun rack in a privately owned vehicle. Any employee or student found in violation of this policy shall, in addition to any criminal action taken, be subject to dismissal from the college or termination of employment as determined by the President.

Sexually Violent Offenders

Residents of Walker County may obtain information regarding registered sexually violent offenders from the Walker County Sheriff's Office. Residents of surrounding counties may contact their local sheriff's department or visit www.ganet.org/gbi.

Student Services

The Student Services program assists students in developing the attitudes and abilities needed to be successful in the occupations they plan to enter.

Orientation

In order that new students may be fully informed and aware of all phases of college life, a program of orientation is provided at the time of placement testing and at registration. For online students, the orientation program can be downloaded from the college's website. Orientation includes an orientation packet and a video explaining the school rules and policies, as well as a briefing on Student Services. New students, all returning students, and online students who have not attended for one year are required to attend orientation.

Career Exploration

The professional career counseling staff provides personal career counseling, various career interest assessments, computerized career guidance, and program selection. Located in the testing center, the service is free and open to the public. Any adult interested in making a change in career direction should contact the center to make an appointment to receive testing and counseling and take advantage of resources designed to give information and support.

Career Planning

Northwestern Technical College provides career planning for prospective students who need assistance in choosing a program of study and are not sure how to get started. A personal career planner is available to answer questions about programs of study, admissions, financial aid, registration, classes, and job placement. This service is free to the public. Any adult wishing to add value to his or her life through education may contact the Admissions Office to make an appointment with a career planner.

Counseling

Northwestern Technical College provides professional counseling services for students who need assistance with school-related problems.

Services to Students with Disabilities/ADA

A special needs coordinator is available to those students with disabilities who may need individual educational plans, specialized equipment, books, or referral services. It is the student's responsibility to inform the coordinator of their special needs requirements.

Job Placement

The Job Placement Office assists students in selecting appropriate employment upon completion of their program of study. Some assistance may be given for part-time work while attending school. Placement office services are available for all current and former students. The successful placement of graduates is one of the major goals of the college.

Follow-Up

The follow-up program maintains contact with former students in the employment field. The data collected from graduates and their employers assists the college in meeting its training objectives and developing up-to-date curricula for its courses of study.

Services for Special Populations

Northwestern is committed to providing technical education to students with special needs through the special populations assistance program. The two primary purposes of the program are:

1) To improve the educational development of special population students
2) To improve the understanding and support of the campus environment.

Special population students are those students who are academically or economically disadvantaged or are physically or mentally disabled as defined under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, and as defined by Carl Perkins Vocational Applied Technology, who are national origin minority students with limited English skills and non-traditional students.

Students attending Northwestern who have special needs should contact the campus ADA Coordinator for counseling and initiation of intervention strategies. The college provides access to the following services: Disadvantaged/Developmental Services, Disability Services, Gender Equity Services, Single Parent/Displaced Homemaker Services, Financial Aid Services, Fatherhood Program, Community-Based Organization Services, Workforce Investment Act Services, Welfare-to-Work, Limited English Proficiency Services, Vocational Rehabilitation Services, Northwest Georgia Career Depot, VOCARE Program.

Veterans Educational Services

Northwestern Technical College assists armed services veterans and other students eligible for veterans education benefits from the Veterans Administration (VA). The Financial Aid Office coordinates with other campus offices to provide assistance and counseling. The veteran should be prepared to sustain initial school costs since benefits will not begin for several weeks after enrollment. Students receiving VA benefits must adhere strictly to a planned program of study as indicated on their appropriate school and VA forms. Program changes are to be reported promptly on appropriate VA forms through the Financial Aid Office. All dual majors must be preapproved by the VA office; therefore, prior notification is imperative. All students receiving VA educational benefits are also required to report changes in courseload, withdrawals, or interruptions in attendance to the Financial Aid Office to minimize personal liability resulting from over-payment of VA benefits.

Student Organizations and Activities

The following activities are available to Northwestern Technical College students to enhance the college experience:

Baptist Student Union (BSU)

The Baptist Student Union (BSU) is a student-led organization that attempts to meet the spiritual needs of the college community. The BSU hosts a weekly non-denominational luncheon on campus at Northwestern. There are also opportunities for students to be involved in regional activities such as mission projects, retreats, and fellowships throughout the quarter. All students are welcome to attend.

Gaming Club

The Northwestern Technical College Gaming Club invites all students and faculty to participate in the many events that they sponsor. The main focus of the club is to provide a place to relieve the stress of everyday college life, as well as a place to build friendships with other students. The club provides all types of games, including role-playing games, computer-based video games, console games, and other board and card games. Club officers also participate in a student convention each fall. The club is open to new ideas, including ways to get involved in the community.

GOAL Program

The Georgia Occupational Award for Leadership is recognition sponsored jointly at the state level by the Department of Technical and Adult Education and the Business Council of Georgia. At the local level, the program is sponsored by the Walker County Chamber of Commerce, Catoosa County Area Chamber of Commerce, and the Chattooga County Chamber of Commerce, as well as Northwestern Technical College. The purpose of the program is to give proper recognition to the dignity and importance of technical education in today's economy.

In the spring, four local winners are selected by a screening committee. Winners are awarded a cash prize. Of the four local winners, one will be selected to represent Northwestern Technical College in the state contest. Grades, attitude, personal goals, and self-confidence are considered in selecting GOAL winners.

Student Leadership Council (SLC)

The Student Leadership Council is a volunteer organization made up of volunteer representatives from all occupational programs at Northwestern Technical College. The organization works on projects throughout the year to benefit the college and its students, and its officers participate in the student conventions held each fall and winter.

Phi Beta Lambda

Phi Beta Lambda is an organization for students in the Business or Information Technology Divisions. The local chapter is affiliated with the state Phi Beta Lambda organization and participates in their fall convention and spring state competitions each year.

National Technical Honor Society

The purpose of the National Technical Honor Society (NTHS) is to recognize outstanding post-secondary technical students. Students enrolled in a diploma or degree program may become a member if they meet the following requirements:

1) They must have completed 25 or more credit hours at the college.
2) They must have a minimum GPA of 3.5 of higher.
3) They must meet or exceed all expectations on work ethics grades. Students must be nominated by a faculty member to be considered for membership.

Nominations are accepted every quarter. Induction ceremonies are held twice yearly, and officers participate in the student convention each fall.

Allied Health Club

The Allied Health Club invites participants from all of the health-related academic program at Northwestern Technical College.The club sponsors projects throughout the year, such as the college's annual health fair. Officers of the local group also participate in the student convention each fall.

Admission Requirements and Procedures

Admission Policy

The admission policy of Northwestern Technical College ensures that the citizens of Georgia will have equal access to the opportunity to develop the knowledge, skills, and attitudes necessary to secure personally satisfying and socially productive employment.

By design and implementation, the policies and procedures governing admission to Northwestern Technical College will:

1) Be nondiscriminatory to any eligible applicant regardless of race, color, national origin, sex disability, religion, age, or marital status;
2) Increase the prospective student's opportunities;
3) Guide the implementation of all activities related to admission to the college and its programs; to student financial aid; and to the recruitment, placement and retention of students; and
4) Complement the instructional program.

Admission Requirements

General admissions requirements for admission into the certificate, diploma or degree programs are listed below. Specific admission requirements are listed for each program in the curriculum section of this catalog. ***Note: All Nursing and Allied Health programs have additional admission requirements.***

Age: Applicants for admission must be at least 16 years of age. Applicants for Associate Degree Nursing, Central Sterile Processing, Cosmetology, Licensed Practical Nursing, Occupational Therapy Assistant, Patient Care Technician, Pharmacy Assistant, Pharmacy Technology, and Surgical Technology programs must be 17 years of age or older. Applicants for Cardiovascular Technology, Early Childhood Education, Commercial Truck Driving, and Emergency Medical Technician must be at least 18 years of age.

Education: Education requirements vary according to the particular program of study. All Associate of Applied Technology, all business and medical diploma programs and the Criminal Justice programs require a high school diploma or equivalent (GED). Prior to graduation from an industrial technology diploma program and the Cosmetology program, all students must have graduated from a high school or hold a GED.

Placement Scores: Applicants for all degree, diploma, and selected certificate programs must take the placement test or provide official documentation of a course grade of "C" or better in credit-level English and mathematics taken from an accredited college or postsecondary institution; or submit acceptable ASSET, CPE, SAT, ACT, or COMPASS scores, taken within five years of the time of application.

Admission Procedures

1) Applicants should first submit a completed Application for Admission along with a $15 non-refundable application fee. If paying by check or money order, make payable to Northwestern Technical College.

2) Submit an official transcript from an acceptable accredited high school or official GED test scores. Official transcripts must be sent directly from the issuing school or agency to Northwestern Technical College. High school diplomas must have been awarded by a secondary school that is accredited by an agency approved by the United States Department of Education or a recognized accreditation agency accepted by DTAE. Students who complete a secondary program of study that is not approved by the U. S. Department of Education or a recognized accreditation agency accepted by DTAE may be admitted to a Technical College by attaining a GED or through an alternative path. (See

section on Proof of Secondary Education)

3) Students should then submit transcripts for all colleges and technical colleges attended for credit. All official transcripts must be sent directly from the issuing school or agency to Northwestern Technical College.

4) Students must take a placement exam, submit SAT, ACT, CPE, ASSET, or COMPASS scores or transfer college credit from an accredited college or post secondary institution. (See section on Exemption for Placement Testing)

5) Applicants for Associate Degree Nursing, Emergency Medical Technician, Licensed Practical Nursing, Medical Assistant, Occupational Therapy Assistant, and Surgical Technology are required to complete additional admission procedures.

6) An orientation program must be attended by new students and by former students absent from Northwestern Technical College more than one year. The orientation program is designed to acquaint students with college policies, procedures and services.

Please note: Test scores submitted must meet standard program requirements and must have been taken within the previous five years. Scores must meet the program level requirement. If scores are not appropriate, applicants will be required to take a scheduled placement test.

Application Deadlines

Get a jump start on continuing your education! Applicants are encouraged to apply as soon as possible to meet the quarterly application deadlines.

Summer 2004:	**June 9, 2004**	Summer 2005:	**June 9, 2005**
Fall 2004:	**September 10, 2004**	Fall 2005:	**September 13, 2005**
Winter 2005:	**December 8, 2004**	Winter 2006:	**December 9, 2005**
Spring 2005:	**March 16, 2005**	Spring 2006:	**March 15, 2006**

Admission Status

Admission to Northwestern Technical College will be in one of the following categories: Program Ready, Provisional, Developmental, or Special.

Program Ready: All admission requirements have been met. The student is eligible to take all the courses in the curriculum. Regular admission of transfer students is contingent upon their meeting all the regular admission requirements and being in good standing at a regionally accredited diploma or degree granting institution.

Provisional Status: Placement test scores indicate a need for skills development in reading, writing, math and/or algebra. Certain specified occupational courses, as long as class requisites are satisfied, may be taken along with the developmental courses prior to gaining regular admission.

Developmental Status: Placement test scores are below a designated level in reading, writing, math and/or algebra. The student should complete developmental studies courses before taking any occupational courses in his or her program. Applicants who do not have a GED or high school diploma will be referred to the Adult Basic Education program. This program allows students to receive the needed skills at no charge.

Special Status: Applicants not seeking a degree, diploma or certificate but wishing to enroll in a course for personal, consumer, or occupational purposes may take up to 25 credit hours before declaring a major. Specially admitted students must adhere to the specific prerequisite requirements when selecting courses or receive permission from the Assistant Dean of that Division to waive the prerequisite(s). Specially admitted students are not eligible for financial aid.

Official Documents

Official transcripts, GED transcripts, or other required documents must be sent directly from the issuing school or agency to: Office of Admissions, Northwestern Technical College, and P. O. Box 569, Rock Spring, GA 30739. If brought by the applicant in person, documents must be in an unopened envelope that has been officially sealed by the issuing school or agency.

Proof of Secondary Education

Generally, a transcript from a public high school indicating that the student graduated with an acceptable diploma is proof that the student completed his or her secondary education. A college transcript from an acceptable post secondary education institution is also acceptable in lieu of a high school transcript if the student obtained an associate degree or higher award. Possession of a GED is also acceptable for admission.

Public School Graduates: Graduates of accredited public high schools must have obtained a diploma with a seal indicating that the student has satisfied attendance requirements, Carnegie unit requirements, and the state assessment requirements. High school awards that do not meet the minimum requirements such as certificates of attendance or special education diplomas will not be considered as completion of secondary education.

Private School Graduates: Graduates from private schools must meet accreditation guidelines established and published by the Georgia Department of Technical and Adult Education. Approved accreditation includes:

- The Southern Association of Colleges and Schools (SACS)
- Georgia Accreditation Commission (GAC)
- Accreditation Council for Independent Study (ACIS)
- Georgia Private School Accreditation (GAPSAC)

Home School Graduates: Graduates from a home school program must meet accreditation as specified in the approved list of accreditation agencies above or submit the following documentation:

- Letter from the local school superintendent's office showing:
  1) the parents conformed to the requirements of the Georgia Department of Education;
  2) the parents notified the superintendent of the intent to home school the child prior to initiating home schooling;
  3) the parents submitted the required attendance reports to the superintendent's office on a monthly basis as required by the regulations.
- Submitted final or exit exam scores from an accredited national testing program every three years as specified by the regulations.
- Submitted annual progress reports for the equivalent of the home schooled junior and senior years.

Home schooled students who meet the documentation guidelines above must also submit appropriate SAT or ACT scores and achieve the appropriate minimum placement test scores for the program of choice.

Foreign Secondary Education: Graduates of secondary schools or colleges outside the United States must have their transcripts translated and evaluated for equivalency by an approved evaluation organization or meet accreditation as specified in the approved list of agencies. The cost of the translation and evaluation of the student's transcript is the responsibility of the student. The evaluation report must be received by the Admissions Office directly from the evaluation organization and may not be submitted by the student directly. If a foreign secondary transcript is not attainable, possession of a GED is acceptable.

Placement Test

The purpose of placement testing is to ensure that a student has the academic skills necessary to succeed in the chosen program of study. Minimum test score requirements are established based on statewide standards. Applicants for all degree, diploma and selected certificate programs must take the ASSET or COMPASS placement exam unless they can provide exemption documentation. (See Exemption From Placement Testing) Reasonable accommodations are made during testing for those who have a documented need. The examiner should be notified prior to testing and provided with documentation if special accommodations are needed. Please call the college's Testing Center at 706-764-3581 for more information.

Exemption From Placement Testing

Applicants providing official documentation of acceptable SAT, ACT, CPE or Compass scores, not more than five years old, or with grades of "C" or better in credit-level English and mathematics taken from an accredited college or postsecondary institution may be exempt from testing. SAT, ACT, and CPE scores will not exempt the Elementary Algebra section of the placement test. Minimum test scores are as follows:

Ability-To-Benefit Examination

An applicant who does not possess an acceptable high school diploma or GED and who wishes to apply for federal financial aid may demonstrate eligibility for entry to those programs not requiring a diploma/GED if the applicant achieves acceptable scores on the placement test.

Transient Student Admission Requirements

A student in good standing at another accredited institution may be permitted to enroll as a special student on a space-available basis in order to complete work to be transferred back to the student's parent institution. A transient student will be advised in writing by the parent institution concerning recommended courses. Transient students must do the following:

1) Submit an application for admission to Northwestern Technical College. A transient student will be designated as a special student by Northwestern for reporting purposes.
2) Present a transient letter from the Registrar or Academic Dean of the parent institution verifying that the student is in good standing and noting the specific course(s) to be taken at Northwestern Technical College, is program ready, and is eligible to return to that institution. Please note that the 25-hour credit maximum may be waived for the student upon the recommendation of the parent institution.

Please note: A transient letter is good for one quarter only.

Transfer Student Admissions

Applicants to Northwestern who have previously been enrolled in one or more institutions of higher education and who wish to enroll in a credit program will be considered for transfer admissions. Applicants for transfer admission must meet the following requirements prior to their planned enrollment. Transfer students must submit the following to the college's Admissions Office:

1) A completed application form;
2) A $15 non-refundable application fee;
3) An official high school transcript or GED diploma. If an applicant has an associate or bachelor's degree, a high school transcript is not required.

4) Official transcripts from previous institutions of higher education attended that document coursework for which applicants seek credit with a passing grade of C or better; and
5) Satisfactory scores on the ASSET Placement Test, SAT, ACT, or COMPASS.

A student who has satisfactorily completed, with a C or better, transferable English or mathematics courses may be exempt from taking a placement examination. These courses must be equivalent to the entry-level English and mathematics courses required in the applicant's chosen program of study. A transfer student is admitted to the college:
1) In good standing if the student was in good standing at the former institution;
2) On probation if the student was on probation at the former institution. A student admitted on probation must earn a GPA of at least 2.0 on a minimum of five quarter hours during the first quarter enrolled to continue to the next quarter.

Time Limitation for Program Completion

Northwestern Technical College will accept course credits from regionally and nationally accredited institutions of higher education without time constraints. The institution does not limit the amount of time it will honor coursework taken at the college. However, at the discretion of a student's advisor, students may be required to repeat coursework five years old or older where the course content has changed significantly. There is no minimum amount of time in which a program of study must be completed. Students must take 50 percent of their program at Northwestern, however the typical minimum program length is listed in the Curriculum section of this catalog.

Readmission of Former Students

Students who are absent from Northwestern for one full quarter or more, excluding summer quarter, will be required to complete the following steps:
1) Submit a completed application form to the Admissions Office;
2) Meet the college's general admission requirements at the time of readmission.
3) Submit official transcripts from all institutions of higher education attended since the last period of enrollment at the college.

Senior Citizens

Residents of Georgia who are 62 years of age or older may request a waiver of tuition. This policy applies to regular and institutional credit courses only. It does not apply to continuing education courses, non-credit courses, or seminars. If tuition is waived under this policy, admission will be granted only on a space-available basis. Senior citizens must meet all other admission requirements as specified in the catalog and pay mandatory fees.

Dual and Joint Enrollment

There are programs available to high school students who are interested in taking advantage of dual enrollment at their high school and at Northwestern.

Dual Enrollment

The Dual Enrollment program allows a high school student to take post secondary courses for both high school and college credit. A student enrolled at a Georgia public high school may attend Northwestern Technical College courses taught at the high school or at the college campus. The student may receive high school Carnegie unit credit as well as postsecondary credit hours from Northwestern for the same course. The student must adhere to the following admission regulations:

1) Be at least 16 years of age or classified as a junior or senior.
2) Complete a Northwestern Technical College Application for Admission.
3) Submit an official copy of high school transcript.
4) Meet all testing requirements for Regular Admission status in chosen program.

Please note: Dual Enrolled students are eligible to apply for the HOPE Grant.

Joint Enrollment

A high school student may also take postsecondary courses for college credit only. This is an opportunity to begin a college program while still a high school student. Students must adhere to the following admission requirements:

1) Be at least 16 years of age;
2) Complete a Northwestern Technical College Application for Admission;
3) Submit an official copy of a high school transcript;
4) Achieve program ready or provisional scores of the placement test; and
5) Complete all general admission requirements.

Please note: Joint Enrolled students are eligible to apply for the HOPE Grant.

Tech Prep/Articulated Program

Tech Prep is a collaborative program between the Georgia Department of Education (GDOE) and the Georgia Department of Technical and Adult Education (DTAE) to enhance learning opportunities for secondary and postsecondary students in our state. Local and statewide articulation agreements serve students by facilitating the smooth transition of students from secondary to postsecondary technical college. A high school graduate can transfer Tech Prep articulated courses from high school to Northwestern Technical College if all of the following criteria are met:

1) Graduate continues his or her program of study by enrolling at Northwestern within 18 months of his or her high school graduation.
2) An official high school transcript is provided to Northwestern indicating that the student followed a Tech Prep Program of Study and the transcript lists the articu lated courses.
3) An official completed Documentation of Articulated Credit form is provided to Northwestern from the high school.
4) An 85 percent minimum course grade must be earned by the secondary student to be eligible for postsecondary credit in each of the articulated courses.
5) Complete the Northwestern admission requirements for a program of study.

Out-of-State Students

Out-of-state students will be enrolled only on a space-available basis. Georgia residents are given preference. To be classified as an in-state student for admission purposes, an individual must show that she or he has been a legal resident of Georgia for a period of no less than 12 months immediately preceding the date of registration. Proof of residency can be documented by a voter registration card, an automobile registration, or a house or apartment lease agreement.

Out-of-state students may be charged tuition fees twice that charged for Georgia residents. Northwestern Technical College does not charge out-of-state tuition to students living in out-of-state counties contiguous to the college's service area.

Policy on International Students

It is the policy of the Department of Technical and Adult Education that visa status is not a condition for admission to DTAE technical colleges; however, prospective students must meet the state approved admissions requirements as outlined for all students. While

visa status is not a condition for admission, it is critical information that may be collected for effective student advisement and tuition purposes.

International students seeking admission to Northwestern Technical College must meet the following requirements in addition to the admission procedures for all new students:

1) Furnish an official English translation and evaluation of secondary records and transcripts showing passing scores on native secondary school examinations and completion of the equivalency of a United States secondary school education. If the high school or secondary transcript is unavailable, the student may take the GED test and submit official GED test scores.
2) Provide acceptable SAT or ACT scores. Submit satisfactory scores on the ASSET or Compass test which will, at the minimum, place international students in 097 course levels or above in reading, English, and math. International students will not be admitted to Northwestern Technical College if placement scores are lower than 097 course placement in any one of these three academic areas. Applicant will be referred to the Adult Literacy classes.
3) Submit proficiency in the English language.
4) Pay all cost in full when registering for courses if not eligible for financial aid.
5) Present to the Admissions Office (for photocopying) the original document certifying immigrant or non-immigrant status (resident alien care, Form I-94, refugee care, etc.) for advisement purposes.
6) Foreign students shall be enrolled only on a space available basis and shall not displace an eligible student desiring to enroll who is a resident of Georgia.
7) Foreign students pay four times the tuition required for Georgia residents; this applies to non-immigrant personnel. Foreign immigrants who are permanent residents shall pay the same as citizens of Georgia.

Northwestern Technical College is not authorized to issue an I-20M to anyone for a student visa.

Financial Information

Application Fee

Students applying for admission to any credit course must pay a one-time non-refundable application fee of $15.

Tuition

All credit students will be assessed fees at the rate of $28 per credit hour. A student registering for twelve (12) or more credit hours will be considered a full-time student and will pay $336 for credit programs. ***Please note: Tuition is subject to change.***

Registration Fee

All students pay a quarterly registration fee of $26.

Activity Fee

All students pay a quarterly activity fee of $16.

Late Registration Fee

Students not registering on or before the starting date of the quarter will be charged a $20 late registration fee.

Accident Insurance

Accident insurance costing $4 is included in mandatory fees. Any student taking one or more credit classes is covered by student accident insurance.

Challenge Examination Fee

Student who wish to receive credit by exam will be charged a $25 challenge fee for each class they challenge. For more information, please read the Credit by Examination section under Academic Policies in this catalog.

Books

Textbooks can be purchased in the bookstore. The bookstore buys back used textbooks during finals week each quarter. The buy back price is set by the bookstore management and is based on the condition of the book, the edition, and the need for the book next quarter.

Graduation Fee

There is no graduation fee. Caps and Gowns may be purchased from the bookstore. It is the student's responsibility to submit an application for graduation form to the Registrar.

Replacement Diploma

Replacement diplomas are available from the Registrar's Office. There is a charge for this service.

Refund Policy

Northwestern Technical College can refund 75% of the tuition paid if the student formally withdraws within seven consecutive calendar days, including holidays, from the first day of class. No refunds will be issued after this date. Formal withdrawal prior to the first day of class will result in a 100% refund. Application fees are not refundable. To receive a refund on any fees paid, the student must initiate the refund proceedings by furnishing a receipt and completing and signing the Refund Request form. These forms are available in the Records Office.

Tools

Some programs require that students furnish hand tools. These are areas where a person is expected to have tools upon employment. The required tools may not constitute a complete set but will be adequate to begin work in the field of study.

Transcript Fee

A fee of $2 will be charged for transcripts. To obtain a transcript, a request must be made in writing to the Registrar. Transcripts cannot be requested by telephone.

Senior Citizen Waiver

Qualified senior citizens, 62 years of age and older, pay application, activity, and other fees if applicable. Tuition is waived. Senior citizens will be enrolled on a space-available basis.

Replacement of Student ID

Lost or damaged student identification cards for the current quarter may be replaced at the Registrar's Office at a charge of $2.

Declined Payment of Checks

A check taken in payment of fees which is returned unpaid will cause the assessment of a non-refundable charge of $10. A financial "hold" will be placed on the student's record when a check is returned unpaid and the student will be notified of the hold. Checks may also be subject to a collection fee. Northwestern Technical College will withhold grades and transcripts until the returned check and the charge are collected. Students will be withdrawn from class if the fees are not paid.

Indebtedness

It is expected that every student will discharge any indebtedness to the college as quickly as possible. No degree or diploma will be conferred nor any record or transcript issued to a student who has not made satisfactory settlement with the Business Office for all of his or her indebtedness to the college. A student may be prohibited from attending classes or taking final examinations after the due date of any unpaid obligation.

Financial Aid

Northwestern Technical College recognizes that some students need financial assistance. Students at Northwestern can look to several areas for financial aid: Federal Pell Grants, the Federal Supplemental Educational Opportunity Grant (FSEOG), the Georgia LEAP Program, the HOPE Scholarship Program, Federal Work Study, Northwestern Technical College Foundation Scholarships, and the Workforce Investment Act (WIA).

To be eligible for most financial aid, a student must demonstrate ability to benefit from the course of study or have a high school diploma or equivalent (GED). Students must be accepted into a degree, diploma, or certificate program at the college to be eligible. For most students, the Free Application for Federal Student Aid (FAFSA) and the Northwestern Technical College Financial Aid application must be completed each academic year to be considered for any assistance. The Financial Aid academic year begins Summer Quarter and the applications are available in January (six months prior to the start of the summer term). Students may pick up applications in the Admissions or Financial Aid offices, call the college and request an application by mail, or print one from the college's website.

Students should complete the FAFSA and mail it to the needs analysis processor at least two to three months before the anticipated enrollment date. The FAFSA can also be completed online at www.fafsa.ed.gov. Applications may be filed throughout the year, but returning students who have not completed all paperwork prior to registration will not have funds available at the beginning of the quarter. Students will receive their Student Aid Report (SAR) four to six weeks after mailing the FAFSA. After students complete all other required paperwork, they will receive an award notification letter showing the types and amounts of assistance for which they qualify. Students who are eligible to receive a net check (balance of funds left over after paying all tuition and fees) will be notified when they may pick up a check in the Business Office. Please check with the Financial Aid Office for more details on the application process.

Academic Policies for Financial Aid

Federal and state regulations require the college to establish policies to measure whether students applying for financial aid are in good academic standing and making satisfactory academic progress toward completion of their degree, diploma, or certificate programs.

Satisfactory Academic Progress Policy

A student is required to maintain satisfactory academic progress to remain eligible for financial aid. Northwestern uses the following standards to monitor students progress toward their diploma, degree, or certificate. Satisfactory Progress has two components: **quality** and **quantity**.

Quality: Students must maintain a cumulative grade point average (GPA) of at least 2.0 to remain in good standing. The GPA is monitored at the end of each quarter. A student whose cumulative GPA falls below a 2.0 is placed on financial aid probation for the next quarter of attendance. This will allow one quarter for the student to raise the GPA to the satisfactory level. If, after one quarter, the GPA remains below 2.0, the student will lose financial aid eligibility until the cumulative GPA is again at the 2.0 level or higher.

Quantity: There are a maximum number of hours that students may attempt in pursuing their area of study. These hours are not to exceed 150% of the hours needed for graduation. For example, if a student is pursuing a diploma in Management and Supervision, which requires 84 credit hours for graduation, he or she is allowed to attempt a maximum of 126 hours and still maintain satisfactory progress. In order for students to graduate within this maximum "time frame" of hours, they are expected to have cumulatively completed at least 66% of their attempted credit hours at the end of each quarter. For example, a student who attempts 15 credit hours his or her first quarter would be expected to successfully complete 10 hours for that quarter. If the student took 15 more credit hours the second quarter, he or she would be expected to have successfully completed 20 hours at the end of the second quarter.

A student who, at the end of any quarter, has not successfully completed 66% of her or his cumulative hours attempted, must make up that deficiency the following quarter in addition to the required minimum number of credits for the current quarter. A student who fails to make up the deficiency is no longer considered to be making satisfactory academic progress. Students may reestablish good standing when they have cumulatively completed 66% of their attempted credit hours.

The following grades do not count toward successfully completing a course: Failure, or "F;" Incomplete, or "I;" Withdrawal, or "WF," "WP," or "WD;" and In Progress, or "IP." Financial Aid will pay for repeat courses and the repeated courses will be counted in the GPA as any other class. Any combination of the aforementioned grades in any quarter is grounds for automatic suspension. If a grade changes, the GPA will be recalculated and Financial Aid may be reinstated within the same academic year.

Consequences: *Probation* - If the student fails to meet either the quantitative or qualitative components, the student will be placed on probation for the next quarter of attendance. The student will continue to receive financial aid for his or her next quarter of attendance, but he or she must meet both quality and quantity components by the end of that quarter.

Suspension - If the student does not meet the standards by the end of the probationary term, she or he will be suspended from all financial aid. As stated above, any combination of withdrawal, incompletes, and or failing grades will result in automatic suspension from financial aid.

Policy for Reinstatement of Eligibility for Financial Aid: Students whose GPA is classified as unsatisfactory can reestablish eligibility when the GPA reaches 2.0 and when they have cumulatively completed 66% of their attempted credit hours. It is the responsibility of the student to report to the Financial Aid Office when he or she meets the above requirements.

The above requirements to re-establish financial aid will be made at the student's own expense.

Students will be notified of their failure to make satisfactory academic progress. If the student feels there were circumstances beyond his or her own control that kept her or him from maintaining satisfactory progress, he or she may appeal in writing, using a Satisfactory Progress Appeal form, to a review committee. If the student does not agree with the committee's decision, an appeal can be made to the Vice President of Student Services, whose decision is final. Appeal forms are available from the Financial Aid Office. Students will be notified of the committee's decision within two weeks of submitting the appeal.

Financial Aid Appeal Process

Students failing to meet the requirements set forth in the "Academic Policies for Financial Aid" will be notified in writing by the Financial Aid Office. Any extenuating circumstances that influenced the student's academic performance may be submitted in writing on a Financial Aid Appeal form to the Financial Aid Office for consideration. Appeals for unsatisfactory academic progress will be forwarded to the Financial Aid Satisfactory Progress Committee. All final appeals are forwarded to the Vice President of Student Services. No financial aid will be disbursed until the financial aid appeal is approved. If the appeal is denied, the student will be responsible for payment of tuition and fees until the academic policies are met.

Refund Policy

A few exceptions to the refund policy exist concerning financial aid recipients. Financial aid will be adjusted for classes dropped or added during the first seven days of enrollment. If a student withdraws from the college, the Return of Title IV Funds formula will be used in determining if a refund of federal aid is necessary. If the student has already completed more than 60% of the instructional period, there will be no refund. A copy of the Return of Title IV Funds formula can be obtained in the Financial Aid Office.

Federal Pell Grant (Pell)

Students who demonstrate financial need and are enrolled in an eligible program may be eligible for the Pell Grant. The amount of the grant may range from $400 to $4,050 per academic year, depending on the level of federal funding, cost of education, enrollment status, and the student's Expected Family Contribution, which is taken from the Student Aid Report. Complete eligibility requirements are available from the Financial Aid Office.

HOPE Scholarship and HOPE Grant Programs

The state-funded program is available for most Georgia residents attending the college. The HOPE Scholarship and HOPE Grant pay all tuition and fees for those who qualify. Students pursuing a federal eligible program may complete the Free Application for Federal Student Aid and Northwestern Technical College's Financial Aid Application to apply for all funds. Students who are pursuing a certificate program or students with a bachelor's degree must only complete the Northwestern Technical College Financial Aid Application form. All students who are eligible for the HOPE program will receive a book allowance up to $100.

To continue on the HOPE Scholarship, degree students must maintain a 3.0 GPA. Students' GPA will be checked at the 45th, 90th, and 135 quarter hours. GPA for HOPE Scholarship students will also be checked at the end of each Spring Quarter. Students will lose the HOPE Scholarship if their GPA is less than 3.0 at these checkpoints. There is a 190 hour cap on the HOPE Scholarship.

There will also be a cap on the numbers of hours that students can receive the HOPE Grant. Students will be able to receive the HOPE Grant payment for a total of 95 quarter hours.

Note: The above information is subject to change, pending state legislation.

Federal Work-Study

This program allows students to work in on-campus jobs and earn money to pay their educational expenses. Students will normally be paid the federal Minimum Wage and are paid monthly based on the number of hours worked. Students should apply for federal student aid initially and their eligibility for Federal Work-Study will be determined from their Student Aid Report. Students should contact the Financial Aid Office for more details.

Federal Supplemental Educational Opportunity Grant (FESOG)

The Federal Educational Supplemental Opportunity Grant (FSEOG) is for undergraduates with exceptional financial need, that is, students with the lowest Expected Family Contribution, and priority is given to students who receive Federal Pell Grants. An FSEOG does not have to be paid back. There is no guarantee that every eligible student will be able to receive an FSEOG. Students may be awarded an FSEOG based on the availability of funds.

Rehabilitation Services

Vocational Rehabilitation cooperates with Northwestern Technical College by providing financial assistance to students who have disabilities and who qualify for Vocational Rehabilitation.

Veterans Benefits

Veterans benefits are available to qualified veterans and dependents of deceased or disabled veterans. Applicants should contact the Financial Aid Office of their local or regional Veterans Administration office to obtain applications.

Tuition refunds for students receiving veterans benefits through the Department of Veterans Affairs will be prorated over the length of the course after a $46 fee.

Northwestern Technical College Foundation Scholarships

A limited number of scholarships, funded by the Northwestern Technical College Foundation, are available for students who demonstrate financial need, or who excel in their high school studies. For additional information, students can contact the Financial Aid Office.

Workforce Investment Act (WIA)

The Workforce Investment Act (WIA) is a federal program available to to students who qualify based on federal guidelines. This program pays tuition, books, and supplies for full-time students. There is also a travel, meal, and child-care allowance to those qualifying. All students interested in applying for WIA must first apply for the Federal Pell Grant and/or the HOPE Grant. To apply for WIA, contact the WIA Office at Northwestern Technical College.

Community Services

Career Depot

Employment-related services are available at the Career Depot, a member of the network of One-Stop Workforce Development Centers in Northwest Georgia, including job readiness and job search workshops; resume assistance; video conferencing; career exploration and counseling; career and aptitude assessment; Internet access for state, local, and national job searches; a copier, telephone, and fax machine; as well as referrals to additional social, community and business resources. Caring, friendly, and professional staff are available to assist you with your employment search and training needs.

The Northwestern Career Depot One-Stop is located in room 116 of Building 1 on the college's campus, and is partnered with Rehabilitation Services, New Connections to Work, Georgia Fatherhood Program, Southern Appalachian Educational Opportunity Center, and the Department of Family and Children Services. For more information, please call 706-764-3697.

Georgia Fatherhood Program

The Georgia Fatherhood Program is sponsored by the Child Support Enforcement Agency to place non-custodial parents into jobs or training leading to permanent jobs. There are several path options open through this program. If you or someone you know has an active case with the Child Support Enforcement Office on Highway 27 in Rock Spring, Ga., contact the Lookout Mountain Judicial Court Child Support Enforcement Office for referral or call 706-764-3726 for more information. The Georgia Fatherhood Program's evening hours are Tuesday and Thursday from 4:30 to 6:30 p.m.

Southern Appalachian Educational Opportunity Outreach Center

The Southern Appalachian Educational Opportunity Outreach Center is located in the Career Depot and provides free career and educational guidance, assistance with college admission, and financial aid counseling. Help with GED or high school completion and vocational or technical training is also available. Services are available for Georgia and Tennessee adults who reside in Walker, Chattooga, Catoosa, Dade, Hamilton, and Marion counties. Please call for an appointment: 706-639-2065.

Single Parent/Displaced Homemaker Program: "New Connections to Work"

The New Connections to Work program assists single parents and displaced homemakers with life planning, career, and employment options. New Connections provides a supportive environment where participants develop a personal plan of action leading to educational and employment opportunities that help participants overcome barriers that prevent them from becoming independent and employable. This is accomplished through workshops and small group seminars that include educational and career opportunities, information

on non-traditional opportunities, assessing individual aptitude interests, and work ethics. The program also offers career counseling and the enhancement of coping skills, which include dealing with stress, legal rights, decision-making, study skills, tips for choosing the right day care, assertiveness training, test-taking skills, returning to school, and money/time management. The program has a proven track record of empowering single parents and displaced homemakers by providing updated labor market and training information, comprehensive career exploration, and job readiness and job search activities that prepare its customers for educational programs, interviews, and employment. Program services are free. The New Connections office is located in the Career Depot and can be reached at 706-764-3597.

Adult Literacy Programs

The Adult Literacy Program is designed specifically for adults with unique academic and skill requirements. A flexible program of study meets the needs of any individual wishing to participate. Day and evening community literacy classes are offered at several locations in Catoosa, Chattooga, Dade, and Walker Counties. All community-based classes are **free**. Ask for the location nearest you when you contact one of the numbers below:

In Catoosa County:	**Catoosa County Adult Learning Center** (706) 965-6155
In Chattooga County:	**Summerville Adult Learning Center** (706) 857-0771
In Dade County:	**Dade County Adult Learning Center** (706) 657-2205
In Walker County:	**Northwestern Technical College Adult Learning** (706) 764-3521

An individualized plan of study is developed based on evaluation of skill levels. Level I includes instruction in the areas of reading readiness, basic arithmetic skills, and basic grammar. Level II includes instruction in the areas of reading comprehension, reading in the content areas, mathematics, and language arts. Level III includes instruction that will enable the student to develop the skills necessary to pass the GED tests. A program for non-readers is available through he Volunteer Tutor Program. The newest service available is the English Language Proficiency (ELP) Program for those adults who need to learn the English language. English language proficiency tests are available for those students who need to learn English to prepare for the citizenship test.

The test of General Educational Development (GED) lets Georgia residents demonstrate the attainment of developed abilities normally acquired through the completion of high school. A GED diploma is issued through the State of Georgia to people who successfully pass a series of 5 tests in the areas of Writing Skills, Social Studies, Science, Literature and the Arts, and Mathematics. Persons who have not graduated from high school in the United States or Canada, nor previously earned a GED and are 18 years old or older, are eligible to take the test. Underage students who are 16 to 17 years of age make take test under

certain conditions. Eighteen year old candidates must provide a high school withdrawal form. Contact the Adult Literacy Director or Director of Counseling and Assessment for application forms and instructions.

Free classes to prepare adults for the GED examination are offered on a year-round basis at several locations in each county served. The GED test itself is administered in the Testing and Counseling Center on the main campus of the college. The fee for the test is $55 and photo identification is required. You must register for a time to take the test in advance. Contact 706-764-3731 for more information.

Youth Success Academy

The Youth Success Academy is specifically designed for out of school youth that wish to attain a GED and a technical education. The participants in the program will be involved in: GED Preparation, Survival Skills for Youth Workshops, Customer Service Workshops, Career Exploration Activities, Community Service Projects, and Reader's Theater.

The WIA Youth Success Academy is sponsored through the Coosa Valley RDC Workforce Investment Act. Those who are eligible may apply for travel and childcare stipends. Referrals may come through any number of sources, including self-referral.

The Youth Success Program is located in the Northwestern Technical College Career Depot in Room 116. The hours of operation are 8:30 am - 4:00 pm. For more information, contact LaRae Eveans, Youth Services Program Assistant, at 706-764-3761, or e-mail her at leveans@nwtcollege.org

Academic Information

Grading System

Grades are issued at the end of each quarter, using the following system:

Grade	Explanation	Grade Points
A	(90-100) Excellent	4.00
B	(80-89) Good	3.00
C	(70-79) Satisfactory	2.00
D	(60-69) Poor	1.00
F	(Below 60) Failing	0.00
AC	Articulation Credit	Not Computed
AU	Audit	Not Computed
EX	Credit by Competency Exam	Not Computed
I	Incomplete	Not Computed
IP	In Progress	Not Computed
S	Satisfactory	Not Computed
TR	Transfer Credit	Not Computed
W	Administrative Withdrawal	Not Computed
WP	Withdrew Passing	Not Computed
WF	Withdrew Failing	Computed as an "F"
U	Unsatisfactory	Not Computed

"AC" Articulation Credit: Course credit awarded for classes in the high school Tech Prep program.

"AU" Audit: A student may choose to audit a class rather than take it for credit. By auditing the class, the student is allowed to attend class without meeting admission requirements, and without receiving a grade or credit. Students who audit a class must pay the regular tuition, admission, and registration fees. Students are not allowed to change from audit to credit status once the term has begun, and neither are students allowed to change from credit to audit status once the term has begun.

"EX" Credit by Competency Exam: Upon request and approval, a competency exam may be administered to a student to determine if the student has already gained mastery of the course competencies (See Credit by Exam under Academic Policies). Such a request should be made to the program course instructor. If the student achieves satisfactory performance on the exam, a grade of "EX" will be recorded. The "EX" grade carries no grade points, but credit hours will be given identical to the number of credit hours normally assigned to that course at the college.

"I" Incomplete: When circumstances beyond the control of a student or an instructor prevent the completion of course requirements during a quarter, an "I" (incomplete) is recorded until the final grade is established. The incomplete is assigned only after the student has made arrangements with the instructor for fulfilling the course requirements. All work must be completed within the first two weeks of the following quarter, or the grade automatically becomes an "F." Extraordinary circumstances may merit an appeal for extension of time. Extensions of time must be requested by the instructor and approved by the Academic Affairs Office.

"IP" In Progress: A grade of "IP" indicates that the course continues beyond the end of its quarter.

"S" Satisfactory: Developmental courses and some credit courses which are held for business and industry may award a grade of "S" for Satisfactory rather than an traditional letter grade. A grade of "S" indicates that the student has successfully mastered all of the course competencies. A grade of "S" carries no quality points, but credit hours for that course will be awarded to the student.

"TR" Transfer Credit: A grade of "TR" indicates that the student has success-

fully completed the course at another postsecondary institution. a grade of "TR" carries no quality points. The student will, however, receive comparable credit hours at the college for the credit hours received at the former institution.

"W" Withdrawal: This grade indicates that a student withdrew from course during the first seven calendar days of the quarter and attended course.

"WP" Withdrew Passing: This grade signifies that a student withdrew from school voluntarily or was administratively withdrawn with a passing grade after the fifth (5th) class day and before the end of the quarter. It is not computed in the GPA.

"WF" Withdrew Failing: This grade signifies that a student withdrew from school voluntarily or was administratively withdrawn with a failing grade after the fifth (5th) class day and before the end of the quarter. It is computed as an "F" in the GPA.

"U" Unsatisfactory: Developmental courses and some credit courses for business and industry may award a grade of "U" for Unsatisfactory rather than an "F." A grade of "U" indicates that the student did not master all of the course competencies. A grade of "U" carries no quality points.

Grade Point Average

The grade point average (GPA) is a way of mathematically computing a student's academic performance by assigning a value to each grade, multiplying the value by the number of credit hours in the course, and dividing the product by the total number of hours attempted. It is a standard measure for retention and grading requirements.

The college uses a four-point grading system, which means that an A grade is assigned a value of four points (sometimes called quality points), a B is assigned three points, a C two points, a D one point, and an F no points. See the table below for an example of how a GPA is computed for one quarter.

GPA Computation Example

Credit Hours	X	Grade (Point Value)	=	Total Points
5		B (3)		15
5		D (1)		5
1		A (4)		4
2		C (2)		4
4		C (2)		8
Total: 17				36

Total Points/Total Credit Hours = GPA
36 Points/17 Hours = 2.11 Quarter GPA

Quarterly Grade Point Average

A student's quarterly GPA is the average of all grades earned in a quarter.

Cumulative Grade Point Average

A student's cumulative GPA is the average of all grades earned at the college. This average is calculated in the same manner as the quarterly GPA (see above), but includes all courses attempted at the college. The cumulative GPA is recorded on the student's permanent record.

Repeated Courses

When a course is repeated, only the last grade received for the course will be calculated in the cumulative GPA. The first grade remains on the transcript.

Work Ethics Grade

A code of ethics is basic to all cultures, groups, and professions. Ethics provide guidelines for living and performing, and they serve as the basis for making difficult decisions. Classroom instruction on ethical work standards is, therefore, provided in each course, and students receive the opportunity to practice these ethics in an educational setting before they enter the workplace.

Each student is evaluated in terms of his or her work ethic twice each quarter, at midterm and at the end of the quarter. This evaluation is reflected in a separate grade on a student's transcript. Attributes measured as a part of work ethic are attendance, character, teamwork, appearance, attitude, productivity, organizational skills, communication, cooperation, and respect. Students in online classes also receive work ethics grades. Attributes measured are those appropriate to online instruction.

Grade Reports

Grade reports are posted to the college website approximately two weeks after the close of a quarter. Students can check their grades at www.northwesterntech.edu. Grades will not be given out by phone.

Grade Appeals

A grade appeal must be made no later than the midterm of the academic quarter following the quarter in which the grade was received. A student wishing to initiate an appeal may obtain a copy of the specific procedure from the Vice President of Academic Affairs.

Satisfactory Academic Progress

Students are considered to be making satisfactory academic progress if they maintain a cumulative GPA of 2.0 or higher. A cumulative GPA of 2.0 or higher is also required for graduation.

Unsatisfactory Academic Progress

Students are considered to be making unsatisfactory academic progress if they have been placed on academic suspension because of their quarterly GPA.

Academic Probation and Suspension

Any student who earns a quarterly GPA of less than 2.0 will be placed on academic probation during the next quarter of registration and enrollment. A student placed on academic probation must meet with her or his advisor to develop intervention strategies. A student will be suspended for one quarter if the quarterly GPA falls below a 2.0 for two consecutive quarters. When a student is suspended, that student is not allowed to enroll in classes for the next term. During the first quarter of enrollment after academic suspension, a student is

placed on academic probation. A student is removed from academic probation by earning a quarterly GPA of 2.0 or higher.

Drop/Add Period

A student may drop or add a course without penalty within the first seven consecutive calendar days, including holidays and weekends, following the beginning date of any quarter. All schedule changes must be approved by the instructor and the student's academic advisor. To drop or add a class, the student must fill out a change of registration form, obtained in the Records Office, and return it to the Records Office with the appropriate signatures. A student may withdraw from a class after the official drop/add period, but before the end of the quarter. Students who withdraw during this time will be assigned a grade of WP or WF. A student who stops attending class but does not officially withdraw will be assigned a grade of WF.

Withdrawal from the College

To officially withdraw from the college, the student must obtain a withdrawal from from the Records Office, complete the form, and return it to that office. Failure to do so may result in a failing grade and/or loss of financial aid.

Merit List

A quarter GPA of 3.5 to 3.79 with a course load of at least 12 credit hours will place a student on the Merit List for that quarter.

President's List

A quarter GPA of 3.8 or higher with a course load of at least 12 credit hours will place a student on the President's list for that quarter.

Graduation

Students are eligible to graduate when the following requirements are met:

1) The diploma or associate degree seeking student has earned a high school diploma or a GED; 2) The required number of credit hours in the student's program of study have been satisfactorily completed and the student has a minimum cumulative GPA of 2.0; 3) An application for graduation has been filed in the Records Office no later than midterm, five weeks into the quarter in which requirements are to be completed; 4) Program area exit examination has been completed; 5) At least 50% of the credit hours required for graduation have been earned at Northwestern. No more than 50% of the credit hours required for graduation may be earned by transfer of credit, credit by examination, or articulation.

Students who re-enroll in the college after an absence of 12 consecutive months or more and who are seeking a certificate, diploma, or degree must meet the graduation requirements as stated in the catalog which is in effect at the time of re-enrollment. Students may meet graduation requirements at the end of each quarter. Formal graduation exercises are held at the end of Spring Quarter and all graduates are encouraged to participate in the ceremony.

Residency Requirement

Transfer students must complete a minimum of 50% of their required coursework at Northwestern before being issued a diploma or degree. No more than 50% of the credit hours required for graduation may be earned by transfer of credit, credit by examination, or articulation. Credit awarded as part of an articulation agreement or awarded based upon corporate/industrial or third party certification must be validated by the credit by examination process in place at the college.

The 50% residency requirement may be reduced to 25% if the student has completed a program for which Georgia Department of Technical and Adult Education standards have been implemented within the system and if the programs of study are of a comparable degree/diploma level.

Full-Time Students

Individuals pursuing 12 credit hours or more during a quarter are considered to be full-time students.

Part-Time Students

Part-time coursework may be undertaken in any program of study. Students who take fewer than 12 credit hours per quarter are considered to be part-time.

Maximum Class Load

The maximum number of credit hours that a student may carry in one quarter without special permission from the Academic Affairs Office is 21.

Academic Advisors

At the time of enrollment, each student will be assigned an academic advisor. The advisor's role is to offer counsel regarding the student's program of study, make referrals to other services, provide academic guidance when transferring to other institutions, and help students monitor their academic progress realistically. Before registering, students are required to meet with their advisor. In order to ensure that students are taking the appropriate courses for their programs of study, all registration forms must by signed by the student's advisor.

With the advent of distance education via the Internet, some students may choose to take one or more classes online and never meet their instructor in person. Online students are still assigned an advisor just as a campus-based student and required to communicate with that advisor before registering for classes. Communication with the advisor can be accomplished in person, by telephone, or online.

The faculty directory section of this catalog contains a list of all full-time faculty with telephone numbers and e-mail addresses. This information is also available at the college's website, www.northwesterntech.edu.

Attendance

Absences seriously disrupt a student's orderly progress in a course and significantly diminish the quality of group interaction in class. Although an occasional absence may be unavoidable, in no way is the student excused from meeting the requirements of the course when they are absent. A student absent from class is still responsible for preparing assignments, for the next class and completing the work missed. When a student must be absent, it is imperative that the absence is handled in a responsible and professional manner. Attendance, therefore, is an important criterion in the work ethic evaluation.

Typically absences in excess of 10% of the instructional time make it very difficult to complete the requirements of the course. When a student has missed 10% of the instructional time in a class, he or she may be contacted by the instructor of that class and counseled as to the available options. Some programs may have a more stringent attendance policy. Instructors will have their specific attendance policy in their syllabus. It is imperative that students read and follow the syllabus information.

Declaring a Major

At Northwestern Technical College, each degree and diploma program requires students to progress through the following instructional course categories in a developmentally valid sequence: 1) General Core Curriculum; 2) Occupational Curriculum.

Students are encouraged to enroll in a combination of general studies courses and major courses. Each degree or diploma program complies with program admission standards and competency prerequisites established in the relevant program-specific standards. Students are required to complete prerequisite courses prior to enrolling in subsequent courses.

General Core Curriculum

The General Core Curriculum includes a common group of courses in composition, speech, natural sciences, mathematics, humanities, social sciences, and basic computer skills that are required for a number of closely related program areas.

Diploma Programs

Each student completing a diploma program at the college is required to satisfactorily complete at least 13 credit hours in general core courses. For the diploma-seeking student, that course of study typically consists of an appropriate course in mathematics, English, psychology, and computer literacy. This requirement is based upon the belief that to be well-trained is not enough. Today's technician must also be competent in the use of written and spoken language, possess adequate computational skills, have good interpersonal skills and be able to use computers to solve problems. The diploma level general education core at the college seeks to achieve this goal.

Associate Degree Programs

Each student seeking an associate degree at the college is required to satisfactorily complete at least 30 hours in general education that include at least one course in mathematics or science, two courses in the arts and humanities, and one course in the social or behavioral sciences. In addition to these three areas, associate degree students are required to complete at least one course in speech and a course in the use of computers. Associate degree students are also strongly encouraged to take at least one general education elective.

These requirements are based on the belief that the successful associate degree graduate must be more than a highly-trained technician. He or she must be comfortable with and competent in the use of the spoken and written word and familiar with its form and structure. The student must have a level of mathematical proficiency that will allow her or him to read and understand mathematical information, solve mathematical problems, and make data-based decisions. The associate degree graduate must have an understanding of the social and psychological self and have a familiarity with and appreciation for the arts and humanities. General education at the college prepares the student for an uncertain future in addition to training him or her in specific skills.

Occupational Curriculum

Occupational courses are those technical courses that form the majority of the student's program of study. The specific content of the major is determined by the curriculum requirements of each program area and includes from 61 to 120 credit hours in associate degree programs.

Elective courses are available for each diploma or degree program and may be included in the requirements for program graduation. Electives are freely chosen by students in order to develop their individual interests and may be selected from non-required courses in the major program, in general education, or from other program areas.

College Transfer

Courses at the college are not specifically designed to transfer into programs leading to the bachelor's degree. The Georgia Board of Regents' official position on courses taken at the college is as follows:

"Although courses form these institutions are not designed for programs leading to the bachelor's degree, credit will be accepted for courses which are determined by the receiving institution, on a case-by-case basis, to be comparable to lower division courses offered at the receiving institution."

Class Cancellation

The college reserves the right to cancel any class with insufficient enrollment; however, all courses will be given the opportunity to meet minimum enrollment according to the schedule listed in the catalog.

Course Prerequisites

Course prerequisites listed in the Catalog must be met before advanced courses may be taken.

Change of Major

In the event a student declares a change of major, the student's placement test scores and previously earned credits will be evaluated in terms of the new major. In some instances a change of major will result in additional general studies course work. The student must meet admission requirements for the new major. Students desiring to change their major should complete a Change of Status form available in the Records Office.

Credit By Examination

Upon petition from a student, credit by examination may be given. If circumstantial evidence indicates the probability of special technical aptitude or knowledge on the part of the petitioning student, a written, oral, and/or performance examination will be developed and administered by an instructor of the course. Permission to take such an examination must be granted by an appropriate instructor. To be eligible for credit by examination, the student must be currently enrolled in the college. There is a nonrefundable $25 fee for each examination. Students who score 75% or higher on all components of the examination will be awarded a grade of "EX" for the course. The "EX" carries no grade points, but the number of credit hours normally assigned to the course will be awarded. A student is eligible to challenge a course only one time. The application and procedure for initiating a request to challenge a course via credit by examination are available in the Office of Academic Affairs.

Course Substitution

The college will permit substitution from the prescribed curricula only under unavoidable or exceptional circumstances. In order to request a deviation from the prescribed course of study, the student should first consult an advisor in that program area. If the student is advised to pursue the course substitution, he or she should obtain a Course Substitution form from the Records Office. On this form, the student will describe the substitutions sought and the reason for making that request. Such course substitution requests must receive approval from the Academic Affairs Office.

Developmental Studies

Because the college is dedicated to helping its students succeed, it places importance on testing, placement, and remediation of students. Developmental courses in English, reading, and mathematics are required for students whose placement scores indicate that they need need remediation in one or more academic areas.

Students lacking the minimum required SAT or ACT scores will be given a placement test at the time of application. This test is used for counseling and

placement purposes only. If the test scores fall below the program ready requirements, the student will be granted either Developmental status, requiring at least one course at the 095 or 096 level, or Provisional status, which requires at least one course at the 097 level.

Students with Developmental Status and those placed in English 095, 096, or 097; Reading 095, 096, or 097; or Math 095 or 096 will be required to take College Life 099.

In order to successfully complete a Developmental Studies course, the student must meet the following criteria: 1) Complete the required exit examination; 2) Score 75% or higher on coursework; and 3) Receive instructor recommendation.

Students with Developmental Status may not take any courses in their program of study. Students with Provisional status may take some courses in their program of study at the suggestion of their advisors, but students are not eligible to graduate if developmental courses have not been completed.

Students with Developmental Status may not be eligible for certain kinds of financial aid. Applicants without a high school diploma or GED will be referred to adult literacy classes for remediation.

Electives

Elective hours allow the student to explore a field of interest or to enhance the program of study in which they are enrolled. Students may select elective hours from any course offered.

Transcripts

The college maintains the position that students' records are their own property. Therefore, this information is released only when a student signs a Student Release form in the Admissions Office. Students may have copies of their transcript sent to any institution or individual they choose. They may also order copies for their own use. The fee is $2 for each transcript.

Notification to Students Regarding Testing As a Degree Requirement

All students will be required to take one or more tests to measure general education achievement, critical thinking skills, and/or achievement in selected major areas as a prerequisite to graduation or for the purpose of evaluation of academic progress. Unless otherwise provided for an individual program, no minimum score or level of achievement is required for graduation. Students may also be asked to participate in one or more satisfaction surveys designed to measure institutional effectiveness. Participation in testing may be required for all students, students in selected programs, and for students selected on a sample basis.

Transcript Evaluation

The college accepts transfer credits only from regionally or nationally accredited colleges. A grade of "C" or better is required in order for the credit to transfer. Transfer credit is only given for courses with an equivalent at Northwestern. In order to receive transfer credit, the student must have official copies of all college transcripts sent to the Admissions Office. Transcripts are generally evaluated within two weeks after receipt.

Academic Dishonesty Policy

Academic dishonesty includes but is not limited to each of the following acts when performed in any type of academic or academically-related matter, exercise or activity:

Cheating: Using or providing others with unauthorized materials, information, study aids, or computer-related information.

Plagiarism: The presenting of words, data, works, ideas, computer programs or output of another as one's own work.

Fabrication: Presenting as genuine any invented or falsified citation or material.

Misrepresentation: Falsifying, altering, or misstating the contents of documents or other materials related to academic matters, including schedules, prerequisites, and transcripts. ***Please Note: In cases where students are charged with misrepresentation by faculty or professional staff, sanctions will be determined by the Office of Academic Affairs and may include dismissal from the institution.***

Students charged with academic dishonesty may receive, at the discretion of the faculty member, a penalty of failing the assignment(s), a penalty of a zero for the assignment(s) or a penalty of failure of the class. Students wishing to refute the charges or contest the penalty, or faculty members who wish to impose greater sanctions, such as dismissal from the institution, shall have a hearing by the Student/Faculty Judicial Commission. The results of the hearing will be administered by the Office of Academic Affairs.

A request for a hearing must be presented in writing to the Office of Academic Affairs in the same quarter that the charge of academic dishonesty was made.

All Health, Science, Human Services and Nursing program students will follow specific rules and regulations set by accreditation agencies, program handbooks, and clinical facilities polices.

Library

The college's library currently houses approximately 11,000 volumes with room for almost 14,000 more, and has seating for 75 people. In addition to the main reading room, which contains most of the collection, the library has a conference room for meetings and multimedia presentations, a multimedia distribution center control room, a photocopier, and a Scantron. The major systems in the library include an online electronic catalog for finding books, videotapes, and CD-ROMs; access to GALILEO for searching periodicals and other data; and 19 workstations for searching the Internet. The college also has resource sharing agreements with the Kresge Memorial Library at Covenant College, The Cherokee Regional Library System, and the Catoosa County County Library System.

Staffing includes two full-time professional librarians, one full-time library technical assistant and work-study library assistants. The operating schedule during academic terms is 8:00 a.m. to 9:00 p.m. Monday through Thursday and 8:00 a.m. to 4:00 p.m. on Friday. When classes are not in session, library operating hours are from 8:00 a.m. to 4:30 p.m. Monday through Thursday, and from 8:00 a.m. to 4:00 p.m. on Friday. The library is open to all students, faculty, and staff of the college, as well as any adult resident of the college's service area.

The library uses the The Library Corporation, which combine with CARL Corporation to provide Library.Solution, a fully integrated turnkey library system servicing more than 1,000 libraries worldwide. This online Library.Solution system of circulation and cataloging enables users to locate, use, and/or check out library holdings relevant to their areas of interest. It also allows library staff to catalog online and produce a current online catalog that is accessible online at www.nwtcollege.org/ntclibrary/library.html.

GALILEO, Georgia Library Learning Online, provides statewide online access to the catalogs of Georgia public, academic, and special libraries. It also provides database searching of keywords, authors, titles, etc. GALILEO is a web-based virtual library providing secured access to various periodical databases and pre-selected and evaluated Internet resources, including the following: 1) EBSCOHost databases (predominantly full-text; 2) ProQuest family of databases (predominantly full-text); 3) Links to reference sites; 4) National Newspapers (27); 5) Internet Resources (Reference sites, Directories - subject category searching, and Search engines - keyword or phrase searching).

The Multimedia Distribution System consists of networked PC terminals located in classrooms, allowing faculty access to videocassettes, DVDs, and cable channels.

Library Support for Distance Learners

The college's library website provides a virtual gateway to the library's resources. Online students may access library resources though the library web page. A password, obtained from the Director of Library Services at (706) 764-3568 or by e-mail at kkwiatko@nwtcollege.org, is required.

Continuing Education

In addition to the regular degree, diploma, and certificate programs, Northwestern Technical College offers ongoing Continuing Education short-term classes and programs. These courses are non-credit and are offered in fine arts, professional development, and personal enrichment.

Each person who satisfactorily completes a Continuing Education class receives a certificate. If requested in writing, a record of Continuing Education courses may be sent to a potential employer.

Students enrolled in Continuing Education classes do not have to take the admission examination and may register for Continuing Education courses by phone, fax, mail, or walk-in procedures. Schedules listing courses are published quarterly and are free upon request.

Economic Development Programs

Northwestern Technical College's Economic Development Division can serve as the customized training resource to business and industry throughout the four county service area of Catoosa, Chattooga, Dade, and Walker Counties. With companies facing workforce challenges, remaining competitive requires constant worker training and retraining. All of a company's training needs from assessment to performance management, from basic to high technology, from productivity enhancement to employee involvement, can be met through Northwestern Technical College. Training can be conducted either on campus or in the participating company's facilities.

Quick Start: Training for New and Expanding Industry. This program is administered through Northwestern Technical College and is designed to provide direct assistance to new industry or industry expansion which requires addition of production personnel and equipment. The intent of Quick Start is to train for initial start-up of a new or expanding industry. This training may include semi-skilled, skilled, technical, basic academic, and supervisory training to ensure success of trainees. Contact the Vice President for Economic Development for more information or to discuss specific industry training needs.

Retraining Tax Credit: Northwestern Technical College is the Georgia Department of Technical and Adult Education unit that approves retraining programs of existing industry seeking State of Georgia income tax credits for the counties of Catoosa, Chattooga, Dade, and Walker. Eligible business enterprises may be granted tax credits equal to one half of the direct costs of retraining, up to $500 per full-time employee per approved retraining program. Involved retraining programs are those that provide job skills for employees otherwise unable to function effectively on the job due to skill deficiencies or who would otherwise be displaced because such skill deficiencies would inhibit their utilization of new technology. New technology includes implementation of new equipment and or new operating systems such as workplace re-engineering, total quality management, ISO 9000 standards, and employee involvement programs. Executive training, management development training, career development, and personal enrichment training are not included.

Academic Calendar 2004-2005

Summer Quarter 2004

Application and Testing Deadline	June 9, 2004
New Student Registration	June 14, 2004
Last Day for Late Registration	June 14, 2004
First Day of Class	July 6, 2004
Last Day to Drop/Add a Class	July 12, 2004
Last Day for 75% Refund	July 12, 2004
Early Registration (for Fall Quarter)	August 9-20, 2004
Mid-Term	August 10, 2004
Holiday	September 6, 2004
Faculty In-Service	September 15, 2004
New Student Registration (for Fall Quarter)	September 16, 2004
Final Examination Period	September 17 and 20, 2004

Fall Quarter 2004

Application and Testing Deadline	September 10, 2004
New Student Registration	September 16, 2004
Last Day for Late Registration	September 16, 2004
First Day of Class	September 30, 2004
Last Day to Drop/Add a Class	October 6, 2004
Last Day for 75% Refund	October 6, 2004
Early Registration (for Winter Quarter)	November 1-12, 2004
Mid-Term	November 4, 2004
Holiday	November 25-26, 2004
New Student Registration (for Winter Quarter)	December 14, 2004
Final Examination Period	December 15 and 16, 2004
College Closed	December 24-31, 2004

Winter Quarter 2005

Application and Testing Deadline	December 8, 2004
New Student Registration	December 14, 2004
Last Day for Late Registration	December 14, 2004
First Day of Class	January 5, 2005
Last Day to Drop/Add a Class	January 11, 2005
Last Day for 75% Refund	January 11, 2005
Holiday	January 17, 2005
Early Registration (for Spring Quarter)	February 7-18, 2005
Mid-Term	February 10, 2005
New Student Registration (for Spring Quarter)	March 21, 2005
Final Examination Period	March 22 and 23, 2005

Spring Quarter 2005

Application and Testing Deadline	March 16, 2005
New Student Registration	March 21, 2005
Last Day for Late Registration	March 21. 2005
First Day of Class	April 4, 2005
Last Day to Drop/Add a Class	April 11, 2005
Last Day for 75% Refund	April 11, 2005
Mid-Term	May 9, 2005
Early Registration (for Summer Quarter)	May 9-20, 2005
Holiday	May 30, 2005
New Student Registration (for Summer Quarter)	June 14, 2005
Final Examination Period	June 15 and 16, 2005
Graduation	June 17, 2005

ACADEMIC CALENDAR 2005-2006

Summer Quarter 2005

Application and Testing Deadline	June 9, 2004
New Student Registration	June 14, 2004
Last Day for Late Registration	June 14, 2004
First Day of Class	July 7, 2004
Last Day to Drop/Add a Class	July 13, 2004
Last Day for 75% Refund	July 13, 2004
Early Registration (for Fall Quarter)	August 8-19, 2004
Mid-Term	August 11, 2004
Holiday	September 5, 2004
Faculty In-Service	September 16, 2004
New Student Registration (for Fall Quarter)	September 19, 2004
Final Examination Period	September 20 and 21, 2004

Fall Quarter 2005

Application and Testing Deadline	September 13, 2004
New Student Registration	September 19, 2004
Last Day for Late Registration	September 19, 2004
First Day of Class	October 3, 2004
Last Day to Drop/Add a Class	October 10, 2004
Last Day for 75% Refund	October 10, 2004
Early Registration (for Winter Quarter)	November 7-18, 2004
Mid-Term	November 7, 2004
Holiday	November 24-25, 2004
New Student Registration (for Winter Quarter)	December 15, 2004
Final Examination Period	December 16-19, 2004
College Closed	December 26, 2005 - January 2, 2006

Winter Quarter 2006

Application and Testing Deadline	December 9, 2005
New Student Registration	December 15, 2005
Last Day for Late Registration	December 15, 2005
First Day of Class	January 5, 2006
Last Day to Drop/Add a Class	January 11, 2006
Last Day for 75% Refund	January 11, 2006
Holiday	January 16, 2006
Early Registration (for Spring Quarter)	February 6-17, 2006
Mid-Term	February 13, 2006
New Student Registration (for Spring Quarter)	March 21, 2006
Final Examination Period	March 22 and 23, 2006

Spring Quarter 2006

Application and Testing Deadline	March 15, 2006
New Student Registration	March 21, 2006
Last Day for Late Registration	March 21. 2006
First Day of Class	April 3, 2006
Last Day to Drop/Add a Class	April 10, 2006
Last Day for 75% Refund	April 10, 2006
Mid-Term	May 8, 2006
Early Registration (for Summer Quarter)	May 8-19, 2006
Holiday	May 29, 2006
New Student Registration (for Summer Quarter)	June 13, 2006
Final Examination Period	June 14 and 15, 2006
Graduation	June 16, 2006

Programs of Study

Degree Programs:

Associate Degree Nursing
Associate of Applied Technology:
- Accounting
- Administrative Office Technology
- Cardiovascular Technology
- Computer Information Systems
  - Computer Programming Option
  - Internet Specialist - Web Site Design Option
  - Microcomputer Specialist Option
  - Networking Specialist Option
- Criminal Justice
- Drafting Technology
- Early Childhood Education
- Electronics Technology
  - Computer Servicing
  - Industrial Control
- Management & Supervisory Development
  - Banking Option
  - Business Option
- Medical Assisting
- Occupational Therapy Assistant
- Pharmacy Technology
- Surgical Technology

Diploma Programs:

- Accounting
- Air Conditioning Technology
- Business & Office Technology
  - Business Office Specialist
  - Legal Office Specialist
  - Medical Office Specialist
- Computer Information Systems
  - Computer Programming Option
  - Internet Specialist - Web Site Design Option
  - Microcomputer Specialist Option
  - Networking Specialist Option
- Cosmetology
- Criminal Justice
- Drafting Technology
- Early Childhood Education
- Electronics Technology
  - Computer Servicing
  - Industrial Control
- Electronics Fundamentals
- Industrial Maintenance (Electrical)
- Licensed Practical Nursing (LPN)
- Machine Tool Technology
- Management & Supervisory Development
- Medical Assisting
- Surgical Technology
- Welding & Joining Technology

Certificate Programs:

- A+ Certification
- Advanced General Machinist
- Bookkeeping Specialist
- CAD Operator
- Central Sterile Processing Technician
- Certified Customer Service Specialist
- Certified Manufacturing Specialist
- Child Development Associate
- CISCO Specialist
- CNC Specialist
- Commercial Truck Driving
- CompTIA Network+
- Criminal Justice Record Technician
- Data Management
- Document Design & Production
- Emergency Medical Technician
- Employee Relations
- Engine Lathe Operator
- Gas Metal Arc Welding
- Gas Tungsten Arc Welding
- Geographic Information Systems
- Help Desk Support Specialist
- Java Programmer
- Leadership Development
- Medical Coding
- Medical Reception
- Medical Transcriptionist
- Microsoft Office User Specialist
- Milling Machine Operator
- Network Security+
- Office Management Specialist
- Office Support Assistant
- Organizational Leadership
- Patient Care Technician
- Pharmacy Assistant
- Phlebotomy Technician
- Programmable Logic Control Specialist
- Residential Design
- Shielded Metal Arc Welding
- Team Leader
- Technical Communication
- Telecommunication Management Specialist
- Web Designer
- Windows 2000
- Word Processing Specialist

BUSINESS AND INFORMATION TECHNOLOGY

PROGRAM DESCRIPTIONS AND REQUIREMENTS

A+ Certification: Certificate

As the computer industry has grown, so has the need for skilled computer repair technicians. The A+ Certification program provides the student with the knowledge, skills, and techniques to become a professionally trained computer repair technician. Students who complete the program are qualified to sit for both the Core Hardware and OS Technologies examinations required for A+ certification. Students may take the exams at Northwestern's Prometric Testing Center and are qualified for entry-level positions as computer repair technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
CIS 103	Operation Systems	6
CIS 122	Micro Installation and Maintenance	7
CIS 286	Preparation for A+ Certification I	7
CIS 287	Preparation for A+ Certification II	5
Total Credit Hours Required for Graduation:		**25**

ACCOUNTING: AAT DEGREE

The Accounting program prepares students for careers in accounting. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes accounting theory and practical applications necessary for successful employment using both manual and computerized accounting systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 72-76**
ACC 101	Principles of Accounting I	6
ACC 102	Principles of Accounting II	6
ACC 103	Principles of Accounting III	6
ACC 104	Computerized Accounting	3
ACC 106	Accounting Spreadsheet Fundamentals	3
	OR	
CIS 2228	Spreadsheet Techniques	6
ACC 150	Cost Accounting	6
ACC 151	Individual Tax Accounting	4
ACC 152	Payroll Accounting	4
ACC 158	Managerial Accounting	6
ACC 160	Advanced Accounting	
	Spreadsheet Applications	4
	OR	
CIS 222	Advanced Excel	3
BUS 101	Beginning Document Processing	5
BUS 108	Word Processing	7
BUS 151	Introduction to Business	5
SCT 100	Introduction to Microcomputers	3
	Electives	5

Total Credit Hours Required for Graduation: **102-106**

ACCOUNTING: DIPLOMA

The Accounting program prepares students for careers in accounting. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes accounting theory and practical applications necessary for successful employment using both manual and computerized accounting systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 4 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Math	5
EMP 100	Interpersonal Relations & Professional Development	3

Occupational Curriculum		**Credit Hours: 55-58**
ACC 101	Principles of Accounting I	6
ACC 102	Principles of Accounting II	6
ACC 103	Principles of Accounting III	6
ACC 104	Computerized Accounting	3
ACC 106	Accounting Spreadsheet Fundamentals	3
	OR	
CIS 2228	Spreadsheet Techniques	6
ACC 152	Payroll Accounting	4
BUS 101	Beginning Document Processing	5
BUS 108	Word Processing	7
SCT 100	Introduction to Microcomputers	3
	Approved Electives (see advisor)	12

Total Credit Hours Required for Graduation: **73-76**

Administrative Office Technology: AAT Degree

The Administrative Office Technology Degree program prepares students for careers in administrative and office professions. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of business and office technology theory and practical application to instill critical thinking, problem solving, human relation skills, and the ability to apply technology to work requirements necessary for successful employment using both manual and computerized business and office technology systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 7 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 72-78**
SCT 100	Introduction to Microcomputers	3
ACC 101	Principles of Accounting I	6
ACC 102	Principles of Accounting II	6
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 103	Advanced Document Processing	5
BUS 105	Database Fundamentals	3
	OR	
CIS 2229	Database Techniques	6
BUS 106	Office Procedures	5
BUS 107	Machine Transcription	3
BUS 108	Word Processing	7
BUS 201	Advanced Word Processing	3
BUS 202	Spreadsheet Fundamentals	3
	OR	
CIS 2228	Spreadsheet Techniques	6
MKT 101	Principles of Management	5
MKT 103	Business Law	5
	Electives	8

Total Credit Hours Required for Graduation: **102-108**

Bookkeeping Specialist: Certificate

The Bookkeeping Specialist Certificate provides an early exit point for accounting students while maintaining their career path to the diploma or associate degree. The skill level provides students the opportunity to gain employment quickly while continuing their education on either a full- or part-time basis.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
ACC 101	Principles of Accounting I	6
ACC 102	Principles of Accounting II	6
ACC 104	Computerized Accounting	3
ACC 152	Payroll Accounting	4
MAT 111	Business Math	5
SCT 100	Introduction to Microcomputers	3
Total Credits Required for Graduation:		**27**

Business and Office Technology:
Diploma with Business Office Specialization

The Business and Office Technology Diploma program prepares students for careers in the secretarial science profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of business and office technology theory and practical application to instill critical thinking, problem solving, human relation skills, and the ability to apply technology to work requirements necessary for successful employment using both manual and computerized business and office technology systems. The Business Office Specialization prepares students to work in business offices.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma with Specialization (Minimum Program Length 4 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 30**
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 103	Advanced Document Processing	5
BUS 106	Office Procedures	5
BUS 108	Word Processing	7
SCT 100	Introduction to Microcomputers	3

Business Office Specialization Curriculum		**Credit Hours: 23-30**
BUS 105	Database Fundamentals	3
	OR	
CIS 2229	Database Techniques	6
BUS 202	Spreadsheet Fundamentals	3
	OR	
CIS 2228	Spreadsheet Techniques	6
BUS 107	Machine Transcription	3
BUS 201	Advanced Word Processing	3
BUS 208	Office Accounting	5
	OR	
ACC 101	Principles of Accounting I	6
	Electives	6

Total Credit Hours Required for Graduation: **71-78**

Business and Office Technology: Diploma with Legal Office Specialization

The Business and Office Technology Diploma program prepares students for careers in the secretarial science profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of business and office technology theory and practical application to instill critical thinking, problem solving, human relation skills, and the ability to apply technology to work requirements necessary for successful employment using both manual and computerized business and office technology systems. The Legal Office Specialization prepares students to work in legal offices.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma with Specialization (Minimum Program Length 4 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 30**
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 103	Advanced Document Processing	5
BUS 106	Office Procedures	5
BUS 108	Word Processing	7
SCT 100	Introduction to Microcomputers	3

Legal Office Specialization Curriculum		**Credit Hours: 23**
BUS 158	Legal Terminology	3
BUS 217	Legal Procedures I	7
BUS 218	Legal Procedures II	7
BUS 227	Legal Document Processing/Transcription	3
	Occupationally Related Electives	3

Total Credit Hours Required for Graduation: **71**

Business and Office Technology:
Diploma with Medical Office Specialization

The Business and Office Technology Diploma program prepares students for careers in the secretarial science profession. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of business and office technology theory and practical application to instill critical thinking, problem solving, human relation skills, and the ability to apply technology to work requirements necessary for successful employment using both manual and computerized business and office technology systems. The Medical Office Specialization prepares students to work in medical offices.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma with Specialization (Minimum Program Length 4 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 25**
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 103	Advanced Document Processing	5
BUS 108	Word Processing	7
SCT 100	Introduction to Microcomputers	3

Medical Office Specialization Curriculum		**Credit Hours: 28-29**
BUS 208	Office Accounting	5
BUS 211	Medical Terminology	4
	OR	
AHS 109	Medical Terminology for Allied Health	3
BUS 212	Anatomy and Terminology	5
	OR	
AHS 101	Anatomy and Physiology	5
BUS 213	Medical Document Processing Transcription	5
BUS 216	Medical Office Procedures	5
BUS 226	Medical Office Billing/ Coding/Insurance	5

Total Credit Hours Required for Graduation: **71-72**

Certified Customer Service Specialist: Certificate

The Certified Customer Service Specialist Certificate program prepares students for positions in the service, hospitality, and retail industries. Students gain insight into basic principles of business and quality service, gain skills to create positive customer relations and to effectively communicate with and assist customers. Students also learn basic personal computer and business skills.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
MKT 161	Service Industry Business Environment	2
MKT 162	Customer Contact Skills	6
MKT 163	Computer Skills for Customer Service	3
MKT 164	Business Skills for the Customer Service Environment	3
MKT 165	Personal Effectiveness in Customer Service	1
Total Credit Hours Required for Graduation:		**15**

Certified Manufacturing Specialist: Certificate

The Certified Manufacturing Specialist Certificate program provides students with a background in training for use in the manufacturing sector. Students are trained in teamwork and communication skills, quality control, computer skills, electrical safety, and production requirements.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
AMF 152	Manufacturing Organizational Principles	2
AMF 154	Manufacturing Workplace Skills	2
AMF 156	Manufacturing Production Requirements	2
AMF 158	Automated Manufacturing Skills	4
AMF 160	Representative Manufacturing Skills	5
Total Credit Hours Required for Graduation:		**15**

CISCO Specialist: Certificate

The CISCO Specialist Certificate program will complement an existing array of training programs in the CIS field. The CISCO curriculum will be taught as a stand-alone certificate and as an option in the AAT program. Completion of the program prepares the student for the CISCO Certified Network Associate Examination (CCNA). The student receives the training needed to design, build, and maintain small to medium sized networks.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
CIS 2321	Introduction to LAN & WAN	6
CIS 2322	Introduction to WANs and Routing	6
CIS 276	Advanced Routers and Switches	6
CIS 277	WAN Design	6
Total Credit Hours Required for Graduation:		**24**

CompTIA Network+: Certificate

The CompTIA Network+ Certificate program is designed to prepare a student for the CompTIA Networking+ Examination. Earning the Networking+ certification means that the candidate possesses the knowledge needed to configure and install the TCP/IP client. The exam covers a wide range of vendor and product neutral networking technologies that can also serve as a prerequisite for vendor-specific IT certifications.

Novell° accepts the Network+ certification exam in place of their Networking Technologies exam for all Certified Novell Engineer (CNE°) candidates.

Microsoft accepts the Network+ certification exam as partial elective credit for MCSA and MCSE candidates.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 106	Computer Concepts	5
CIS 122	Microcomputer Installation and Maintenance	7
CIS 1140	Networking Fundamentals	6
CIS 2321	Introduction to LAN & WAN	6
Total Credit Hours Required for Graduation:		**33**

Computer Programming: AAT Degree

The Computer Programming Specialist program prepares students to work in a variety of positions in the computer field. The program introduces, develops, and reinforces academic, technical, and professional knowledge, skills and attitudes needed for job acquisition, retention, and advancement. In addition to the Computer Information Systems essential occupational curriculum, the program emphasizes computer programming theory and practical application necessary for successful employment. The program provides opportunities to upgrade present knowledge and skills or to retrain in Computer Information Systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 80**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 112	Systems Analysis and Design	6
CIS 214	Database Management	6
	Specific Occupational Guided Language Courses	35 *(see note)*
	Specific Occupational Guided Electives	8

Total Credit Hours Required for Graduation: 110

Note: Completion of a total of 35 credit hours from language electives, including a minimum of 14 hours in the same programming language, is required.

Computer Programming: Diploma

The Computer Programming Specialist program prepares students to work in a variety of positions in the computer field. The program introduces, develops, and reinforces academic, technical, and professional knowledge, skills and attitudes needed for job acquisition, retention, and advancement. In addition to the Computer Information Systems essential occupational curriculum, the program emphasizes computer programming theory and practical application necessary for successful employment. The program provides opportunities to upgrade present knowledge and skills or to retrain in Computer Information Systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 103	Algebraic Concepts	5

Occupational Curriculum		**Credit Hours: 72**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 112	Systems Analysis and Design	6
CIS 214	Database Management	6
	Specific Occupational Guided Language Courses	35 *(see note)*

Total Credit Hours Required for Graduation: **90**

Note: Completion of a total of 35 credit hours from language electives, including a minimum of 14 hours in the same programming language, is required.

DATA MANAGEMENT: CERTIFICATE

The purpose of the Data Management Certificate is to provide instruction in the use of job-specific software. It is intended for individuals whose job requirements demand high skill levels in in the management and manipulation of data, including the storage and retrieval of data. The certificate stresses the mastery of advanced spreadsheet skills, desktop publishing, and database skills.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
BUS 101	Beginning Document Processing	5
BUS 108	Word Processing	7
CIS 155	Microsoft Windows	3
CIS 2228	Spreadsheet Techniques	6
CIS 2229	Database Techniques	6
CIS 222	Advanced Excel	3
Total Credit Hours Required for Graduation:		**33**

Note: The Data Management Certificate is offered on campus and online.

Document Design and Production: Certificate

The Document Design and Production Certificate provides instruction in the use of job-specific software. It is for students whose job requires high skill levels in producing printed documents, from single-page announcements and flyers to multiple-page documents such as annual reports. This certificate stresses advanced word processing, desktop publishing, and graphic design skills.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
BUS 101	Beginning Document Processing	5
SCT 100	Introduction to Microcomputers	3
BUS 108	Word Processing	7
BUS 161	Desktop Publishing I	5
BUS 162	Desktop Publishing II	5
BUS 201	Advanced Word Processing	3
BUS 105	Database Fundamentals	3
	OR	
CIS 2229	Database Techniques	6
BUS 202	Spreadsheet Fundamentals	3
	OR	
CIS 2228	Spreadsheet Techniques	6
CIS 1140	Networking Fundamentals	6
	OR	
CIS 155	Working with Microsoft Windows Software	3
Total Credit Hours Required to Graduate:		**37-46**

Employee Relations: Certificate

The Employee Relations Certificate program is designed for students moving into supervisory positions in the workplace. The program places an emphasis on improving interpersonal relations and developing a broad understanding of employment law.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum:		**Credit Hours:**
ENG 191	English Composition & Rhetoric	5
MSD 101	Interpersonal Employee Relations	5
MSD 102	Legal Environment for Supervisors	5
SCT 100	Introduction to Microcomputers	3
PSY 191	Introductory Psychology	5
	Elective	5
Total Credit Hours Required for Graduation:		**28**

Help Desk Support Specialist: Certificate

The Help Desk Support Specialist certificate prepares students for a challenging technical support role in the information technology field. The computer support occupation is one of the fastest growing fields in today's market, and projections are strong for growth in the help desk support field in the coming decade. Upon completing this program, students will be qualified to provide technical assistance to computer system users. Graduates will be prepared to answer questions or resolve computer problems for clients in person, by telephone, or from remote locations. Help Desk Support Specialists will be trained to provide assistance concerning the use of computer hardware and software, networks, printers, installation, peripherals, word processing, electronic mail, and operating systems. Graduates of this program will be prepared to assist customers, troubleshoot hardware and software problems, and document solutions. Graduates will utilize knowledge of network and server operations and be able to educate users in resolving application and networking difficulties. The Help Desk Support Specialist Certificate will develop a higher level of understanding of the vital communication skills necessary for conflict management and effective user training as well as provide students with a string technical foundation which they may adapt to any business or technical environment.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 2 Quarters):

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 106	Computer Concepts	5
CIS 122	Microcomputer Installation and Maintenance	7
CIS 1140	Networking Fundamentals	6
CIS 1131	Help Desk Concepts	4
CIS XXXX	Customer Service Skills for IT Professionals	4
Total Credit Hours Required for Graduation:		**35**

Internet Specialist - Website Design: AAT Degree

The Internet Specialist - Website Design program prepares students to work in a variety of positions in the computer field. The program introduces, develops, and reinforces academic, technical, and professional knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program emphasizes skills in web design and maintenance concepts and techniques. Students will receive training in multimedia software, database software for e-commerce applications, ad website design software in addition to the Computer Information Systems essential occupational curriculum.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 70**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 2191	Internet Business Fundamentals	5
CIS 2201	HTML Fundamentals	3
CIS 2211	Website Design Tools	6
CIS 2221	Web Graphics & Multimedia	6
CIS 2231	Design Methodology	6
CIS 2261	JavaScript Fundamentals	4
CIS 2271	Fundamentals of CGI Using Perl	4
CIS 2281	Database Connectivity	7
	Occupationally Related Electives	4

Total Credit Hours Required for Graduation: **100**

Internet Specialist - Website Design: Diploma

The Internet Specialist - Website Design program prepares students to work in a variety of positions in the computer field. The program introduces, develops and reinforces academic, technical, and professional knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program emphasizes skills in web design and maintenance concepts and techniques. Students will receive training in multimedia software, database software for e-commerce applications, ad website design software in addition to the Computer Information Systems essential occupational curriculum.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 103	Algebraic Concepts	5

Occupational Curriculum		**Credit Hours: 70**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 2191	Internet Business Fundamentals	5
CIS 2201	HTML Fundamentals	3
CIS 2211	Web Site Design Tools	6
CIS 2221	Web Graphics & Multimedia	6
CIS 2231	Design Methodology	6
CIS 2261	JavaScript Fundamentals	4
CIS 2271	Fundamentals of CGI Using Perl	4
CIS 2281	Database Connectivity	7
	Occupationally Related Electives	4

Total Credit Hours Required for Graduation: **88**

JAVA PROGRAMMER: CERTIFICATE

The JAVA programming language is one of the new programming languages in great demand by the IT industry. The JAVA Programming Certificate provides first-time programmers an excellent choice for learning programming using the JAVA programming language. The certificate will help students understand the significance of the JAVA language. With this knowledge, students will develop programming skills in the areas of object oriented and JAVA technology. This course is designed to teach students the syntax of the JAVA programming language, object oriented programming without the JAVA language, creating graphical interfaces (GUI), exceptions, file input/output (I/O), threads, and networking.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
CIS 252*	Introduction to JAVA Programming	7
CIS 2421	Intermediate JAVA Programming	7
CIS 2431	Advanced JAVA Programming	7
Total Credit Hours Requited for Graduation:		**21**

Note: No Prerequisites are required for CIS 252.

Management & Supervisory Development: AAT Degree

The Management and Supervisory Development program prepares experienced workers for entry into management or supervisory occupations in businesses and industries. The program introduces, develops, and reinforces academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length: 6 Quarters)

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 46**
SCT 100	Introduction to Microcomputers	3
ACC 101	Principles of Accounting	5
	OR	
MKT 105	Accounting for Marketing Applications	5
MKT 101	Principles of Management	5
MSD 101	Interpersonal Employee Relations	5
MSD 102	Legal Environment for Supervisors	5
	OR	
MKT 103	Business Law	5
MSD 106	Counseling and Disciplinary Actions	5
MSD 107	Training and Performance Evaluation	5
MSD 108	Management and Supervisory Seminar	5
MSD 110	Management and Supervision O.B.I. I	3
MSD 113	Ethical Management	5
	Electives (from outside the area of specialization)	5

Note: Students must select 20 total hours from the following:

Essential Electives		**Credit Hours:**
MSD 103	Leadership & Decision Making	5
MSD 104	Personnel Administration for Supervisors	5
MSD 151	Personal Development for Supervisors	5
MSD 154	Organizational Communication & Information Technology	5
MSD 156	Supervision in a Service Environment	5

Total Credit Hours Required for Graduation: 101

Management and Supervisory Development: AAT Degree, Banking Option

The Banking Option of the Management and Supervisory Development AAT Degree is designed specifically for professionals working in the banking industry. It takes advantage of the existing professional development program offered through the American Institute of Banking by accepting, for transfer credit, specific college-level AIB courses into the Management and Supervisory Development program towards an Associate of Applied Technology degree.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length: 6 Quarters)

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 31**
SCT 100	Introduction to Microcomputers	3
MKT 101	Principles of Management	5
MSD 101	Interpersonal Employee Relations	5
MSD 102	Legal Environment for Supervisors	5
MSD 103	Leadership and Decision Making	5
MSD 107	Training and Performance Evaluation	5
MSD 108	Management and Supervisory Seminar	5
MSD 110	Management and Supervision O.B.I. I	3
MSD 113	Ethical Management	5

Approved AIB Courses for Transfer		**Credit Hours: 30**
1000	Accounting	5
2310	Economics for Bankers	5
7740	Marketing for Bankers	5
1370	Principles of Banking	5
4310	Supervision	5
1350	Money and Banking	5

Total Credit Hours Required for Graduation: 91

Management & Supervisory Development: Diploma

The Management and Supervisory Development program prepares experienced workers for entry into management or supervisory occupations in businesses and industries. The program introduces, develops, and reinforces academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length: 4 Quarters)

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Math	5
EMP 100	Interpersonal Relations & Professional Development	3

Occupational Curriculum		**Credit Hours: 46**
SCT 100	Introduction to Microcomputers	3
ACC 101	Principles of Accounting	5
	OR	
MKT 105	Accounting for Marketing Applications	5
MKT 101	Principles of Management	5
MSD 102	Legal Environment for Supervisors	5
MSD 104	Personnel Administration for Supervisors	5
MSD 106	Counseling and Disciplinary Actions	5
MSD 107	Training and Performance Evaluation	5
MSD 108	Management and Supervisory Seminar	5
MSD 110	Management and Supervision O.B.I. I	3
	Electives (from outside the area of specialization)	5

Note: Students must select a total of 20 hours from the following:

Essential Electives		**Credit Hours:**
MSD 101	Interpersonal Employee Relations	5
MSD 103	Leadership & Decision Making	5
MSD 113	Ethical Management	5
MSD 151	Personal Development for Supervisors	5
MSD 154	Organizational Communication & Information Technology	5
MSD 156	Supervision in a Service Environment	5

Total Credit Hours Required for Graduation: 84

Medical Receptionist: Certificate

The Medical Receptionist Certificate provides an early exit point for students in Office Technology and Medical Assisting programs while maintaining their career path to the diploma or associate degree. Computer skills, medical terminology, and office procedures are learned.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
SCT 100	Introduction to Microcomputers	3
BUS 101	Beginning Document Processing	5
BUS 106	Office Procedures	5
	OR	
BUS 216	Medical Office Procedures	5
BUS 211	Medical Terminology	4
	OR	
AHS 109	Medical Terminology for Allied Health	3
BUS 212	Anatomy & Terminology	5
	OR	
AHS 101	Anatomy & Physiology	5
ENG 111	Business English	5
MAS 114	Medical Administrative Procedures I	3
MAS 115	Medical Administrative Procedures II	3
	OR	
BUS 213	Medical Document Processing	5
Total Credit Hours Required to Graduate:		**33-34**

MEDICAL TRANSCRIPTIONIST: CERTIFICATE

The Medical Transcriptionist Certificate provides entry level training for medical office support in preparation for initial employment with concentration in medical transcription procedures.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Keyboarding skills must be 40 words per minute; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
BUS 102	Intermediate Document Processing	5
BUS 108	Word Processing	7
BUS 211	Medical Terminology	4
	OR	
AHS 109	Medical Terminology for Allied Health	3
BUS 212	Anatomy and Terminology	5
	OR	
AHS 101	Anatomy and Physiology	5
BUS 213	Medical Document Processing/Transcription	5
ENG 111	Business English	5
BUS 216	Medical Office Procedures	5
BUS 201	Advanced Word Processing	3
	OR	
BUS 214	Medical Transcription II	3
Total Credit Hours Required for Graduation:		**38-39**

Note: The Medical Transcriptionist Certificate is offered on campus and online.

Microcomputer Specialist: AAT Degree

The Microcomputer Specialist program prepares students to work in positions using microcomputers, such as end users, systems application developers, operators, technicians, or programmers. They install and maintain microcomputer hardware and software in a variety of settings. Graduates are knowledgeable in application software and trained in evaluating new hardware and software in addition to the Computer Information Systems essential occupational curriculum. Students learn to adapt to a variety of positions in the rapidly changing computer field. Graduates' abilities include critical thinking, problem solving, human relations skills, and the ability to apply technology to work requirements.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 80**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 127	Word Processing and Desktop Techniques	6
CIS 2228	Spreadsheet Techniques	6
CIS 2229	Database Techniques	6
	Language Elective	7
	Occupationally Related Electives	23

Total Credit Hours Required for Graduation: **110**

Microcomputer Specialist: Diploma

The Microcomputer Specialist program prepares students to work in positions using microcomputers, such as end users, systems application developers, operators, technicians, or programmers. They install and maintain microcomputer hardware and software in a variety of settings. Graduates are knowledgeable in application software and trained in evaluating new hardware and software in addition to the Computer Information Systems essential occupational curriculum. Students learn to adapt to a variety of positions in the rapidly changing computer field. Graduates' abilities include critical thinking, problem solving, human relations skills, and the ability to apply technology to work requirements.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 103	Algebraic Concepts	5

Occupational Curriculum		**Credit Hours: 72**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 127	Word Processing and Desktop Techniques	6
CIS 2228	Spreadsheet Techniques	6
CIS 2229	Database Techniques	6
	Language Elective	7
	Occupationally Related Electives	15

Total Credit Hours Required for Graduation: **90**

Microsoft Office User Specialist: Certificate

The Microsoft Office User Specialist Certificate is for end users of the Microsoft office Suite. Students prepare for the Microsoft Office User Specialist Certification examination. Students completing the Product Specialist option and passing the Microsoft examination may be certified in Access, Excel, PowerPoint, or Word. Students may also choose the Office Suite Specialist option which includes certification in all four applications.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Product Specialist Option:

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
CIS 155	Microsoft Windows	3
MAT 111	Business Math	5
ENG 111	Business English	5
CIS 127	Word Processing and Desktop Techniques	6
CIS 2228	Spreadsheet Techniques	6
CIS 2229	Database Techniques	6
CIS 221	Advanced Word	3
	OR	
CIS 222	Advanced Excel	3
	OR	
CIS 223	Advanced Access	3
	OR	
CIS 224	Advanced PowerPoint	3

Total Credit Hours Required for Graduation: 37

Office Suite Specialist Option:

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
CIS 155	Microsoft Windows	3
MAT 111	Business Math	5
ENG 111	Business English	5
CIS 127	Word Processing and Desktop Techniques	6
CIS 2228	Spreadsheet Techniques	6
CIS 2229	Database Techniques	6
CIS 221	Advanced Word	3
CIS 222	Advanced Excel	3
CIS 223	Advanced Access	3
CIS 224	Advanced PowerPoint	3
	Occupationally Related Elective	3

Total Credit Hours Required for Graduation: 49

Note: The Microsoft Office User Specialist Certificate is offered on campus and online.

Microsoft Windows: Certificate

Microsoft Windows is targeted toward medium-to-large organizations with enhanced security, reliability, and manageability. This certificate prepares students for the Microsoft Certified Professional (MCP) certification, and the exams required for the Windows Microsoft Certified Systems Administrator (MCSA) certification.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
CIS 1140	Networking Fundamentals	6
CIS 2149	Implementing Microsoft Windows	6
CIS 2150	Implementing Microsoft Windows Server	6
CIS 2154	Implementing Microsoft Windows Directory Services	6
CIS 2153	Implementing Microsoft Windows Network Infrastructure	6
	Elective	6
Total Credits Required for Graduation:		**36**

Network Security+: Certificate

The Network Security+ Certificate is designed to give students the skills necessary to implement a Windows network in a secure manner and aid in establishing and enforcing company security policies. Some of the topics covered include computer and networking basic configurations, understanding network hardware, installing and securing the client, installing and securing the server, cryptography, firewall basics, hacking exploits and defense, and securing a wireless network. This program of study will prepare the student for the CompTIA Security+ certification exam, which also counts as elective credit toward several Microsoft certifications including MCSA and MCSE.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
CIS 106	Computer Concepts	5
CIS 1140	Networking Fundamentals	6
CIS 2149	Implementing and Supporting Windows Professional	6
CIS 2150	Implementing and Supporting Windows Server	6
CIS 2291	Network Security	6
Total Credit Hours Required for Graduation:		**29**

Networking Specialist: AAT Degree

The Networking Specialist program prepares students to work in the computer networking field. The program introduces, develops, and reinforces academic, technical, and professional knowledge, skills, and attitudes required for for job acquisition, retention, and advancement, emphasizing skills in networking fundamentals and the Computer Information systems essential occupational curriculum. The CISCO option prepares students for the CISCO Certified Networking Associates Exam (CCNA) and the Windows 2000 options prepares students for the Microsoft Certified Systems Administrator certification.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 78**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 127	Word Processing and Desktop Techniques	6
	Language Elective	7
	Occupationally Related Electives	9

Choose one of the following two options:

CISCO Option		
CIS 2321	Introduction to LAN & WAN	6
CIS 2322	Introduction to WANs and Routing	6
CIS 276	Advanced Routers and Switches	6
CIS 277	WAN Design	6

Microsoft Windows Option		
CIS 2149	Implementing MS Windows Professional	6
CIS 2150	Implementing MS Windows Server	6
CIS 2153	Implementing MS Windows Networking Infrastructure	6
CIS 2154	Implementing MS Windows Directory Services	6

Total Credit Hours Required for Graduation: 108

Networking Specialist: Diploma

The Networking Specialist program prepares students to work in the computer networking field. The program introduces, develops, and reinforces academic, technical, and professional knowledge, skills, and attitudes required for for job acquisition, retention, and advancement, emphasizing skills in networking fundamentals and the Computer Information systems essential occupational curriculum. The CISCO option prepares students for the CISCO Certified Networking Associates Exam (CCNA) and the Windows 2000 options prepares students for the Microsoft Certified Systems Administrator certification.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 103	Algebraic Concepts	5

Occupational Curriculum		**Credit Hours: 78**
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 103	Operating Systems Concepts	6
CIS 1140	Networking Fundamentals	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 127	Word Processing and Desktop Techniques	6
	Language Elective	7
	Occupationally Related Electives	9

Choose one of the following two options:

CISCO Option

CIS 2321	Introduction to LAN & WAN	6
CIS 2322	Introduction to WANs and Routing	6
CIS 276	Advanced Routers and Switches	6
CIS 277	WAN Design	6

Microsoft Windows Option

CIS 2149	Implementing MS Windows Professional	6
CIS 2150	Implementing MS Windows Server	6
CIS 2153	Implementing MS Windows Networking Infrastructure	6
CIS 2154	Implementing MS Windows Directory Services	6

Total Credit Hours Required for Graduation: 96

Office Management Assistant: Certificate

The Office Management Assistant Certificate prepares students with the administrative and management skills needed to assist in the management of a wide variety of business offices. Students will complete courses in computer skills, management, interpersonal relation, and accounting. The skills gained can be applied in many different settings including the service and manufacturing industries.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
SCT 100	Introduction to Microcomputers	3
BUS 101	Beginning Document Processing	5
BUS 106	Office Procedures	5
BUS 203	Office Management	5
	OR	
MKT 101	Principles of Management	5
BUS 208	Office Accounting	5
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 111	Business Math	5
EMP 100	Interpersonal Relations and Professional Development	3
Total Credit Hours Required for Graduation:		**41**

Office Support Assistant: Certificate

The Office Support Assistant program gives students the knowledge, skills, and attitudes needed to succeed as an Office Support Assistant.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 107	Machine Transcription	3
BUS 108	Word Processing	7
SCT 100	Introduction to Microcomputers	3
ENG 111	Business English	5
BUS 109	Applied Office Procedures	3
	OR	
BUS 106	Office Procedures	5
Total Credit Hours Required to Graduate:		**31-33**

Organizational Leadership: Certificate

The Organizational Leadership Certificate program is designed for students who are moving into supervisory roles in their workplace. It provides students with skills and knowledge in fields from workplace law to leadership and evaluation processes.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum:		**Credit Hours:**
MKT 101	Principles of Management	5
MSD 102	Legal Environment for Supervisors	5
MSD 103	Leadership and Decision Making	5
MSD 106	Counseling and Disciplinary Actions	5
MSD 107	Training and Performance Evaluations	5
SCT 100	Introduction to Microcomputers	3
Total Credit Hours Required for Graduation:		**28**

TEAM LEADER: CERTIFICATE

The Team Leader Certificate prepares students to assume a first-line supervisory position. The certificate content addresses major issues confronted by the first-line supervisor. This certificate includes 5 hours of elective credit, allowing for significant customization of the curriculum to fit almost any corporate situation.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum:		**Credit Hours:**
MSD 101	Interpersonal Employee Relations	5
MSD 103	Leadership and Decision Making	5
	Elective	5
Total Credit Hours Required for Graduation:		**15**

Technical Communication: Certificate

The certificate is designed to prepare motivated students for jobs requiring written and oral communication skills along with technical proficiency allowing them skills for translating technical knowledge to different audiences.

This type of technical training program is common at many technical colleges in the United States. It encompasses a skill set that is in high demand by employers both in the local service area and nationwide. Although a formal survey has not been administered, anecdotal evidence obtained at the time of advising (four times a year) indicates that students see this program both as a stand-alone career path program and as a supplemental area of expertise that could be developed in concert with their major field of study.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test (Minimum test scores: Reading 41, English 42, Mathematics 39, Elementary Algebra 46) ; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 4 Quarters):

Occupational Curriculum		**Credit Hours**
SCT 100	Introduction to Microcomputers	3
ENG 191	Composition & Rhetoric I	5
	OR	
ENG 193	English Composition II	5
ENG 195	Technical Writing	5
	OR	
ENG 193	English Composition II	5
	OR	
HUM 191	Introduction to Humanities	5
BUS 101	Beginning Document Processing	5
CIS 221	Advanced Microsoft Word	5
BUS 162	Desktop Publishing	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
MAT 191	College Algebra	5
	OR	
MAT 190	Mathematical Modeling	5
MAT 198	Introductory Statistics	5
	OR	
MAT 194	Pre-Calculus	5
	Electives	5
Total Credit Hours Required for Graduation:		**53**

Telecommunications Management: Certificate

The Telecommunications Management Certificate program is designed to teach students how to function as a manager in a technologically diverse work environment.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
ENG 191	English Composition and Rhetoric	5
SCT 100	Introduction to Microcomputers	3
MKT 101	Principles of Management	5
MSD 101	Interpersonal Employee Relations	5
MSD 102	Legal Environment for Supervisors	5
MSD 103	Leadership and Decision Making	5
MSD 106	Counseling and Disciplinary Action	5
TEL xxx	Principles of Applied Telecommunications	5
TEL xxx	Emerging Technologies	5
Total Credit Hours Required for Graduation:		**43**

Web Designer: Certificate

The Web Designer program give students the skills necessary to become web designers. Students will be trained in Web site development and maintenance and will be prepared to administer a web server. This certificate will also prepare students to sit for the Microsoft Certification exams that certify students as "Microsoft Certified Professional+ Internet."

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours:**
SCT 100	Introduction to Microcomputers	3
CIS 1140	Networking Fundamentals	6
CIS 2150	Implementing Microsoft Windows	6
CIS 2191	Internet Business Fundamentals	5
CIS 2221	Web Graphics & Multimedia	6
CIS 2211	Web Site Design Tools	6
CIS 2231	Design Methodology	6
CIS 2261	JavaScript Fundamentals	4
CIS 2201	HTML Fundamentals	3
Total Credit Hours Required for Graduation:		**45**

Word Processing Specialist: Certificate

The Word Processing Specialist Certificate provides students with the skills needed to perform a wide variety of word processing tasks in many different types of organizations. Word processing specialists are utilized to create and maintain a broad range of business documents. Students will learn to use word processing software to prepare business documents and reports, create and manage electronic forms, and will design business stationery, brochures, and other marketing materials.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 2 Quarters):

Occupational Curriculum		**Credit Hours**
SCT 100	Introduction to Microcomputers	3
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 108	Word Processing	7
BUS 201	Advanced Word Processing	3
Total Credit Hours Required for Graduation:		**23**

HEALTH, SCIENCE, HUMAN SERVICES, AND NURSING

PROGRAM DESCRIPTIONS AND REQUIREMENTS

Associate Degree Nursing: ADN Degree

Northwestern Technical College received initial approval from the Georgia Board of Nursing in May 2002 and enrolled its first associate degree nursing class in Fall 2002. Students who meet all of the college's admission requirements may begin taking general education classes at any time. Students who choose to begin taking the general education core curriculum should do so with the full understanding that enrollment in general education classes in no way guarantees admittance to the associate degree nursing program. Presently, preference will be given to Georgia residents for admission into the associate degree nursing program.

General Admission Requirements

The admission policy of the college assures the citizens of Georgia equal access to the opportunity to develop the knowledge, skills, and attitudes necessary to secure personally satisfying and socially productive employment. By design and implementation, the policies and procedures governing admission to the college will:

1) Be nondiscriminatory to any eligible applicant regardless of race, color, national origin, sex, disability, religion, age, or marital status.
2) Increase the prospective student's opportunities.
3) Guide the implementation of all activities related to admission to the college and its programs; to student financial aid; and to the recruitment, placement, and retention of students.
4) Complement the instructional program.

Below are the general requirements and procedures for admission to the college:

1) Be at least 17 years of age.
2) Submit an application for admission to the Office of Admission along with a $15 non-refundable application fee.
3) Submit an official copy of a high school or GED transcript.
4) Take a placement exam or submit SAT, ACT, CPE, ASSET, or COMPASS scores or transfer college credit from an accredited college or postsecondary institution with a grade of "C" or better in credit-level English and mathematics; or submit appropriate ASSET, CPE, SAT, ACT or COMPASS scores. The test must have been taken within the last five years.
5) Attend an orientation program for new students. The orientation program is designed to acquaint students with college policies, procedures, and services.
6) Applicants for Associate Degree Nursing are required to complete additional admission procedures.

Associate Degree Nursing Program Admission Requirements

Admission is competitive and based on a point system consisting of applicants' course grades, residency (preference is given to Georgia residents), and pre-entrance examination composite score. Students are selected each July for admission to the Fall Quarter.

The college's application and all related admission materials must be completed and returned to the Division of Nursing Office no later than February 1 for inclusion in that year's applicant pool. The applicant must be in good academic standing at the time of selection to be considered as a candidate for admission. Admission to the college does not guarantee admission to the associate degree nursing program.

Associate Degree Nursing: ADN Degree (Continued)

Applicants to the Associate Degree Nursing program will be considered for admission based on the following criteria:

1) Achieve proper test scores:
   - ASSET Testing: Writing: 42, Reading: 41, Math: 39, Elementary Algebra: 46; or
   - SAT: Verbal: 480, Math: 440; or
   - ACT: Verbal: 21, Math: 19.
2) Students transferring College Algebra, Introduction to Statistics, Contemporary Math, or Mathematical Modeling with a grade of C or above from an accredited college or university are exempt from the math portion of the ASSET test. **All other applicants are REQUIRED to take the algebra portion of the ASSET test.**
3) Complete ALL developmental coursework as determined by testing.
4) Students transferring English Composition with a grade of C or above from an accredited college or university are exempt from the writing and reading portions of the ASSET test.
5) A cumulative GPA of at least 2.5. Students with higher GPAs will receive preference for admission.
6) Submission of the Division of Nursing Associate Degree Nursing application form to the Division Secretary no later than February 1st of each year.
7) NLN Pre-admission examination score of not less than the 50th percentile (AD composite score)
8) A written statement acknowledging that commission of a felony may prevent or impede the graduate from obtaining RN licensure.

Students selected for admission to the Associate Degree Nursing program must submit the following current official documentation to the Division Secretary AFTER attending the program orientation session and BEFORE November 1st of the same year (Fall Quarter).

1) Copy of basic cardiac life support certification.
2) Copy of student liability insurance receipt.
3) Student's personal health liability.
4) Physician's physical assessment of student.
5) Record of immunization administration and titers.
6) Dentist's dental assessment of student.

Selection for admission to the ADN program is based upon submission of the admission packet and the score obtained on the Entrance Point Criteria Evaluation. Points are awarded for residency, cumulative GPA, completion of core courses, and score on NLN Pre-admission exam. A letter will be sent to inform the applicant of the cost, date, location, and time of the test administration.

It is important that all students are aware of the level of competition for entrance into the ADN program. The ADN program has a limited number of clinical sites and must follow regulations that restrict our enrollment numbers. These limitations ensure the quality of the educational experience for the student, provide safety in the provision of care to the patient, and a mandates by state regulations and nursing program accrediting agencies.

Associate Degree Nursing: ADN Degree (Continued)

Process for Admission

1) Complete all college and ADN admission requirements no later than February 1st.
2) Pay and register for the NLN Pre-Admission Examination (RN) no later than April 15th.
3) Take the NLN Pre-Admission Examination (RN) on the pre-assigned date.
4) Receive official letter of acceptance from the college's Division of Nursing.

Transferring Students

Students will be considered for on an individual basis for advanced placement if:

1) The above requirements for admission to the nursing program have been met.
2) Students were in good standing at their previous institution.
3) A personal reference from the director or faculty of the previously attended nursing school has been submitted.
4) Nursing courses have been completed **within two years** prior to consideration
5) Science courses have been completed **within five years** prior to consideration.
6) Prior school curriculum is comparable
7) Classroom and clinical sites are available.

Retention Policies

1) Students must maintain a cumulative GPA of 2.0 (70) or better. This average, or greater, must be achieved in each course in order to progress to the next quarter of the nursing program. Courses may have special requirements in academic achievement, such as 85% or 90% on drug calculation examinations.
2) Students must attain an overall numerical grade of 75% or better unit test average and an overall 70% or better course average in each nursing course, including clinical rotations, to progress in the program.
3) A student must maintain CPR certification and carry professional liability insurance while enrolled in nursing courses.

Readmission Policies

1) Only one readmission into the nursing program is permitted.
2) After an unsuccessful course, students are required to wait at least one quarter before re-entering that course, or wait until that course is taught again.
3) All current admission requirements must be met before applying.
4) Classroom and clinical sites must be available.
5) Students will undergo a repeat drug screen during the quarter of readmission.
6) Students must continue to be in good standing with the college and the nursing program, i.e., no disciplinary or academic misconduct on record.

Graduation Requirements

All courses in the nursing curriculum must be completed in order to graduate. Only students who have completed coursework and receive their degree are eligible to sit for the NCLEX-RN.

Students will be required to demonstrate attainment of stated program competencies by achieving a predetermined score on the NLN and other diagnostic readiness tests. Students not achieving this score will be required to successfully complete remedial work prior to completion of the program.

Associate Degree Nursing: ADN Degree (Continued)

Clinical Requirements

Working Environment: Works inside well-lighted, ventilated patient care unit, and spends 80-90% of time in private and semi-private patient care rooms. May possibly receive cuts from sharp instruments and infections from contaminated equipment and personnel. May be exposed to communicable diseases. May possibly incur strains due to handling heavy equipment.

OSHA Risk Factor - Category A: A chance of exposure to blood and other body fluids is high and is a condition of enrollment. The position exposes the employee to noxious smell, either toxic or non toxic, exposure to toxic fumes, gases, vapors, mists, or liquids which could, depending on the chemical, cause general or localized disabling conditions as a result of inhalation, ingestion, or action on the skin.

Physical Demands: This position will primarily be medium work requiring the ability to lift up to 50 pounds with frequent lifting and/or carrying of objects weighing up to 25 pounds. The ability to push or pull carts weighing up to 50 pounds is required. Occasional stooping, kneeling, reaching, and dexterity is required. Expressing or exchanging ideas by the spoken word is required. The ability to see and obtain impressions through the eyes of shape, size, distance, motions, or other characteristics of objects is required. This requires a seeing acuity of near 20/20 vision with clarity of vision at 20 inches or less, depth perception, four-way field vision, sharp eye focus, and the ability to identify and distinguish color. The ability to hear is essential. This position requires frequent sitting, standing, and/or walking. Ability to work under mental and physical stress regularly is required.

Licensure Eligibility

The Georgia Board of Nursing has the authority to render a potential candidate ineligible for licensure as a registered nurse based on previous events, such as a misdemeanor and/or felony conviction. It is **the student's responsibility** to determine his/her eligibility for licensure in the State of Georgia.

Administrative Code 43-26-11 of the Georgia Board of Nursing states:

The Board shall have the authority to refuse to grant a license to an applicant, to revoke the license of a licensee, or to discipline a licensee upon a finding by the Board that the applicant or licensee has:

1) Been convicted of any felony, crime involving moral turpitude, or crime involving a federal or state law relating to controlled substances or dangerous drugs in the courts of this state or any other state, territory, or country, or in the courts of the United States, including, but not limited to, a plea of nolo contendere entered to the charge.

2) Displayed an inability to practice nursing as a registered professional nurse or licensed undergraduate nurse with reasonable skill and safety due to illness, use of alcohol, drugs, narcotics, chemicals, or any other type material, or as a result of any mental or physical condition.

Note: The course requirements for the ADN program can be found on the following page.

Associate Degree Nursing: ADN Degree (Continued)

Requirements for the ADN Degree:

Minimum Program Length 3 Quarters/Year x 2 Years = 6 Quarters.

General Core Curriculum		**Credit Hours: 48**
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
BIO 197	Microbiology	5
PSY 191	Introduction to Psychology	5
PSY 291	Human Growth and Development	5
MAT 190	Mathematical Modeling	5
	OR	
MAT 191	College Algebra	5
	OR	
MAT 198	Introduction to Statistics	5
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
SCT 100	Introduction to Microcomputers	3

Nursing Curriculum		**Credit Hours: 62**
NUR 191	Fundamentals of Nursing	6
NUR 192	Dosage Calculations	3
NUR 193	Lifespan Nursing Care I	10
NUR 194	Lifespan Nursing Care II	10
NUR 291	Nursing Care of the Childbearing Family	10
NUR 292	Nursing to Promote Mental Health	10
NUR 293	Lifespan Nursing Care III	10
NUR 294	Nursing Seminar	3

Total Credits Required for Graduation: **110**

Note: The Nursing Division has a prepared program course sequence in which students in the ADN program take the required classes. Please contact the Nursing Division for more information.

Cardiovascular Technology: AAT Degree

The Cardiovascular Technology degree program prepares students to work with physicians to evaluate, diagnose, and treat heart patients. The first year consists of cardiovascular core classes, and the second year is spent in the student technologist's chosen specialty. The degree has been designed to provide an individual the entry level skills required for success in a cardiovascular catheterization lab or an echovascular or vascular area department. Students can choose from among three specializations: Invasive, Noninvasive, and Vascular.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the AAT Degree (Minimum Program Length 8 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
MAT 190	Mathematical Modeling	5
	OR	
MAT 191	College Algebra	5
PSY 191	Introductory Psychology	5
SOC 191	Sociology	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communications	5

Occupational Curriculum		**Credit Hours: 50 - 52**
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
CVT 102	Medical Physics	3
CVT 103	Electrophysiology I	3
CVT 104	Electrophysiology II	3
CVT 107	Cardiovascular I	3
CVT 108	Cardiovascular II	3
CVT 109	Cardiovascular Physiology	3
CVT 110	Noninvasive Cardiovascular Fundamentals	4
CVT 111	Invasive Cardiovascular Fundamentals	4
SCT 100	Introduction to Microcomputers	3
PHY 190	Introductory Physics	5
AHS 102	Drug Calculation and Administration	3
AHS 109	Medical Terminology	3
	OR	
BUS 212	Anatomy and Terminology	5

Note: Students MUST choose from one of the areas of specialization listed on the next page.

Cardiovascular Technology: AAT Degree (Continued)

Invasive Specialization		**Credit Hours: 51**
CVT 120	Cardiac Catheterization I	4
CVT 121	Cardiac Catheterization II	9
CVT 122	Cardiac Catheterization III	9
CVT 123	Cardiac Catheterization Clinical IV	12
CVT 124	Cardiac Cath Clinical I	5
CVT 125	Cardiac Cath Clinical II	3
CVT 126	Cardiac Cath Clinical III	3
DIS 150	Directed Independent Study	2
	Electives	4

Noninvasive Specialization		**Credit Hours: 51**
CVT 131	Echocardiography I	4
CVT 132	Echocardiography Clinical I	5
CVT 133	Echocardiography Clinical II	3
CVT 134	Echocardiography Clinical III	3
CVT 135	Echocardiography II	9
CVT 136	Echocardiography III	9
CVT 137	Echocardiography Clinical IV	12
DIS 150	Directed Independent Study	2
	Electives	4

Vascular Specialization		**Credit Hours: 51**
CVT 140	Vascular I	4
CVT 141	Vascular II	9
CVT 142	Vascular III	9
CVT 143	Vascular Clinical I	5
CVT 144	Vascular Clinical II	3
CVT 145	Vascular Clinical III	3
CVT 146	Vascular Clinical IV	12
DIS 150	Directed Independent Study	2
	Electives	4

Total Credit Hours Required for Graduation: **136 - 142**

Please Note: **OSHA Risk Factor - Category A**

A chance of exposure to blood and other body fluids is high and a condition of employment. The position exposes the employees to noxious smell, either toxic or non-toxic, exposure to toxic fumes, gases, vapors, mists of liquids which could, depending on the chemical, cause general or localized disabling conditions. as a result of inhalation, ingestion, or action on the skin.

Central Sterile Processing Technician: Certificate

The purpose of the central sterile processing technician certificate is to provide entry-level training that will prepare graduates to function in the sterile supply processing and distribution areas of healthcare facilities. The program is based on theory and clinical instruction that will apply scientific principles to the specific work area. Theory classes with laboratory participatory classes will prepare students for clinical application of skills and knowledge in healthcare facilities.

Program Objectives: 1) Students will develop skills necessary to properly decontaminate, process, prepare, store, and issue both sterile and non-sterile medical and surgical supplies and equipment in the healthcare setting. 2) Students will be prepared to operate and monitor sterilizers in healthcare facilities.

OSHA Risk Factor - Category A

A chance of exposure to blood and other body fluids is high and a condition of employment. The position exposes the employees to noxious smell, either toxic or non-toxic, exposure to toxic fumes, gases, vapors, mists of liquids which could, depending on the chemical, cause general or localized disabling conditions. as a result of inhalation, ingestion, or action on the skin.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
BUS 212	Anatomy and Terminology	5
MAT 101	General Mathematics	5
SCT 100	Introduction to Microcomputers	3
CSP 101	Introduction to Central Sterile Processing	9
SUR 108	Surgical Microbiology	3
CSP 102	Central Sterile Processing Practicum	10
Total Credit Hours Required for Graduation:		**35**

Child Development Associate: Certificate

The Chid Development Associate certificate program produces graduates who are prepared for employment as childcare assistants. The certificate is designed to prepare graduates to sit for the CDA credential exam from the Council for Early Childhood Professional Recognition in Washington, D.C. The CDA credential is recognized nationally by Head Start, Georgia State Pre-K programs, and other private and public early care and education settings.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Occupational Curriculum		**Credit Hours: 15**
ECE 101	Introduction to Early Childhood Education	5
ECE 103	Human Growth and Development I	5
ECE 105	Health, Safety, and Nutrition	5
Total Credit Hours Required to Graduate:		**15**

COSMETOLOGY: DIPLOMA

The Cosmetology program prepares students to work as cosmetologists. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in safety, sanitation, hair treatment and manipulation, skin and nail care, color, highlighting, permanent weaving, relaxing, haircutting, styling, reception, sales, and management. The curriculum meets the licensing requirements of the State Board of Cosmetology. Program graduates receive a cosmetology diploma and are employable as a cosmetology salesperson, cosmetologist, salon manager, or salon owner.

Admission requirements: 1) Attainment of 17 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length: 5 Quarters):

General Core Curriculum		**Credit Hours: 16**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3
SCT 100	Introduction to Microcomputers	3

Occupational Curriculum		**Credit Hours: 59**
COS 100	Introduction to Cosmetology Theory	5
COS 101	Introduction to Permanent Waving and Relaxing	2
COS 103	Introduction to Skin, Scalp, and Hair	2
COS 105	Introduction to Shampooing and Styling	4
COS 106	Introduction to Haircutting	3
COS 108	Permanent Waving & Relaxing	3
COS 109	Hair Color	6
COS 110	Skin, Scalp, and Hair	3
COS 111	Styling	3
COS 112	Manicuring and Pedicuring	3
COS 113	Practicum I	4
COS 114	Practicum II	8
COS 115	Practicum/Internship I	4
COS 116	Practicum/Internship II	5
COS 117	Salon/Shop Management	4

Total Credit Hours Required for Graduation: 75

Criminal Justice: AAT Degree

The Criminal Justice Program gives students the knowledge, skills, and attitudes to succeed in the criminal justice field. The program produces graduates who are prepared to pursue opportunities in the criminal justice field in various capacities. The program emphasizes both criminal justice theory and practical applications necessary for successful employment.

Students in the Criminal Justice program who hold state law enforcement certification may be eligible to receive course credit through the Georgia Peace Officer Standards and Training Council.

The degree in Criminal Justice is a sequence of courses that prepares students to become criminal justice professionals. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. Graduates who are currently working in the criminal justice field will enhance their career potential. Persons entering the criminal justice field will be prepared to pursue diverse career opportunities in law enforcement, corrections, security, investigation, and public protection.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Degree (Minimum Program Length: 7 Quarters):

General Core Curriculum		**Credit Hours: 35**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
ECO 191	Principles of Economics	5
MAT 191	College Algebra	5
	OR	
MAT 198	Introduction to Statistics	5

Occupational Curriculum		**Credit Hours: 60**
SCT 100	Introduction to Microcomputers	3
CRJ 101	Introduction to Criminal Justice	5
CRJ 103	Corrections	5
CRJ 104	Principles of Law Enforcement	5
CRJ 105	Criminal Procedure	5
CRJ 202	Constitutional Law	5
CRJ 206	Criminology	5
CRJ 207	Juvenile Justice	5
CRJ 209	Criminal Justice Internship	5
	Electives	17
Total Credit Hours Required for Graduation:		**95**

Criminal Justice: Diploma

The Criminal Justice Program gives students the knowledge, skills, and attitudes to succeed in the criminal justice field. The program produces graduates who are prepared to pursue opportunities in the criminal justice field in various capacities. The program emphasizes both criminal justice theory and practical applications necessary for successful employment.

Students in the Criminal Justice program who hold state law enforcement certification may be eligible to receive course credit through the Georgia Peace Officer Standards and Training Council.

The Diploma in Criminal Justice is a sequence of courses that prepares students to become criminal justice professionals. Learning opportunities develop academic, occupational, and professional knowledge and skills required for job acquisition, retention, and advancement. Graduates who are currently working in the criminal justice field will enhance their career potential. Persons entering the criminal justice field will be prepared to pursue diverse career opportunities in law enforcement, corrections, security, investigation, and public protection.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Degree (Minimum Program Length: 6 Quarters):

General Core Curriculum		**Credit Hours: 15**
ENG 111	Business English	5
PSY 191	Introductory Psychology	5
MAT 101	General Mathematics	5
	OR	
MAT 111	Business Mathematics	5

Occupational Curriculum		**Credit Hours: 55**
SCT 100	Introduction to Microcomputers	3
CRJ 101	Introduction to Criminal Justice	5
CRJ 103	Corrections	5
CRJ 104	Principles of Law Enforcement	5
CRJ 105	Criminal Procedure	5
CRJ 202	Constitutional Law	5
CRJ 206	Criminology	5
CRJ 207	Juvenile Justice	5
CRJ 209	Criminal Justice Internship	5
	Electives	12

Total Credit Hours Required for Graduation:		**95**

Note: The following two courses can be taken as 10 of the 12 required elective hours:

CRJ 154	Police Officer Survival	5
CRJ 162	Methods of Criminal Investigation	5

Criminal Justice Records Technician: Certificate

The Criminal Justice Records Technician program teaches students to work as entry-level records technicians in the law enforcement and corrections fields.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours: 28**
SCT 100	Introduction to Microcomputers	3
CRJ 101	Introduction to Criminal Justice	5
BUS 101	Beginning Document Processing	5
MSD 103	Leadership and Decision Making	5
MSD 156	Supervision in a Service Environment	5
	OR	
MSD 101	Interpersonal Employee Relations	5
MSD 175	Business Spanish	5
	OR	
ENG 111	Business English	
Total Credit Hours Required for Graduation:		**28**

Early Childhood Care and Education: AAT Degree

The Early Childhood Care and Education program is designed to prepare students for success in the field of Early Childhood Education. The program produces graduates who are ready to work as paraprofessionals, lead teachers, or child care program management directors. Early Childhood Care and Education places emphasis on a combination of childhood theory and practical application necessary for job acquisition, retention, and advancement.

Graduates are competent in one of two specializations. Graduates specializing as paraprofessionals are competent in the use of methods and materials in the class room, concepts of professionalism and classroom management and middle childhood growth and development. Graduates specializing in early childhood program management are to be competent in childcare facility management and childcare personnel management.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Degree (Minimum Program Length: 7 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
MAT 191	College Algebra	5
	OR	
MAT 193	Contemporary Mathematics	5

Occupational Curriculum		**Credit Hours: 69-73**
ECE 101	Introduction to Early Childhood Education	5
ECE 103	Human Growth & Development I	5
ECE 105	Health, Safety, and Nutrition	5
ECE 112	Curriculum Development	3
ECE 121	Early Childhood Education Practicum I	3
	OR	
	Program Elective	5
ECE 122	Early Childhood Education Practicum II	3
	OR	
	Program Elective	5
SCT 100	Introduction to Microcomputers	3
ECE 113	Art for Children	3
ECE 114	Music and Movement	3
ECE 115	Language Arts and Literature	5
ECE 116	Math and Science	5
ECE 201	Exceptionalities	5
ECE 202	Social Issues and Families	5
ECE 224	Early Childhood Education Internship	12

Note: This program listing continues on the next page.

Early Childhood Care and Education: AAT Degree (Continued)

In addition to the Occupational Curriculum listed above, students must complete one of the following Specializations:

Specialization I

Paraprofessional Specialization		**Credit Hours: 15**
ECE 203	Human Growth and Development II	5
ECE 211	Methods and Materials	5
ECE 212	Professional Practices	5

Specialization II

Early Childhood Program Management Specialization		**Credit Hours: 15**
ECE 217	Program Administrator	5
ECE 221	Facility Management	5
ECE 222	Personnel Management	5

Total Credit Hours required for Graduation: **110**

Note: Prior to enrolling in a lab course (ECE 112, 121, 122, 224), students must provide the following documentation: 1) A satisfactory criminal record check; 2) Verification of liability insurance; 3) CPR/First Aid certification.

Early Childhood Care and Education: Diploma

The Early Childhood Care and Education program is designed to prepare students for success in the field of Early Childhood Education. The program produces graduates who are ready to work in as paraprofessionals, lead teachers, or child care program management directors. Early Childhood Care and Education places emphasis on a combination of childhood theory and practical application necessary for job acquisition, retention, and advancement.

Program graduates receive a diploma after completing 73 credit hours in Early Childhood Care and Education, or they may continue to advance their education and specialize in paraprofessional education or early childhood program management.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length: 4 Quarters):

General Core Curriculum		**Credit Hours: 13**
ENG 111	Business English	5
EMP 100	Interpersonal Relations and Professional Development	3
MAT 101	General Mathematics	5

Occupational Curriculum		**Credit Hours: 63-67**
ECE 101	Introduction to Early Childhood Education	5
ECE 103	Human Growth & Development I	5
ECE 105	Health, Safety, and Nutrition	5
ECE 112	Curriculum Development	3
ECE 121	Early Childhood Education Practicum I	3
	OR	
	Program Elective	5
ECE 122	Early Childhood Education Practicum II	3
	OR	
	Program Elective	5
SCT 100	Introduction to Microcomputers	3
ECE 113	Art for Children	3
ECE 114	Music and Movement	3
ECE 115	Language Arts and Literature	5
ECE 116	Math and Science	5
SCT 100	Introduction to Microcomputers	3
ECE 202	Social Issues and Families	5
ECE 224	Early Childhood Education Internship	12

Total Credit Hours Required for Graduation: **76-80**

Note: Prior to enrolling in a lab course (ECE 112, 121, 122, 224), students must provide the following documentation: 1) A satisfactory criminal record check; 2) Verification of liability insurance; 3) CPR/First Aid certification.

Emergency Medical Technician: Certificate

The Emergency Medical Technician program prepares students for a career as an Emergency Medical Technician (EMT). The program meets the minimum requirements for the U.S. Department of Transportation National Standard Curriculum for Training of Emergency Medical Technician.

Admission requirements: 1) Attainment of 18 or more years of age; 2) documentation of high school graduation or completion of GED; 3) achievement of program ready scores on the placement test; and 4) completion of general admission.

OSHA Risk Factor: Category A

A chance of exposure to blood and other body fluids is high and is a condition of course completion. The courses expose the student to noxious smell, either toxic or non-toxic; to toxic fumes, gases, vapors, mists, or liquids that could, depending on the chemical, cause general or localized disabling conditions as a result of inhalation, ingestion, or action on the skin.

Emergency Medical Technician Admission Requirements

1) Hold a valid driver's license.
2) Complete EMT program application.
3) Be formally accepted to the EMT program by the EMT Admissions Committee on the basis of an interview and an assessment of student potential.
4) Be physically able to perform the duties of an EMT as verified by a note from a physician.

Note: Due to the physical requirements involved, pregnant women are not eligible for this program of study.

Note: EMT students are required to purchase liability insurance. The cost is $46.50.

Requirements for the Certificate:

Occupational Curriculum		Credit Hours
EMS 120	Emergency Medical Technology I - Basic	8
EMS 121	Emergency Medical Technology II - Basic	7
EMS 122	Emergency Medical Technology - Intermediate	9
Total Credit Hours Required for Graduation:		**24**

Licensed Practical Nursing (LPN): Diploma

The Licensed Practical Nursing (LPN) program prepares students to write the State Board of Examination for license as practical nurses. The program prepares graduates to give competent nursing care. This is done through a selected number of academic and occupational courses providing a variety of techniques and materials necessary to assist the student in acquiring the needed knowledge and skills to give competent care. A variety of clinical experiences are planned so that theory and practice are integrated under the guidance of the clinical instructor. Program graduates receive an LPN diploma and have the qualifications of an entry-level practical nurse.

Admission Requirements for the LPN Diploma:

The Practical Nursing program gives students the knowledge, skills, and attitudes necessary to succeed in practical nursing. The program provides educational opportunities regardless of race, color, national origin, religion, sex, age disability, academic disadvantage, or economic disadvantage. Program graduates are to be competent in communications, math, interpersonal relations, anatomy and physiology, drug calculations, administration of medications. nutrition and diet therapy, nursing ethics, patient care, and wellness and prevention of illness. The LPN program strives to meet the health care needs of the community which it serves, working in conjunction with specific agencies that employ its graduates. The following guidelines have been established in considering applicants for admission to the LPN program. They may be evaluated and revised as necessary by faculty and administration.

All applicants to the LPN program must meet the following requirements:

1) Be 17 or more years of age.
2) Submit application and required fees to the college's admissions office.
3) Take a placement examination and receive the required scores.
   - ASSET Testing: Writing: 35, Reading: 38, Math: 38
   - SAT: Verbal: 430, Math: 400
   - ACT: Verbal: 18, Math: 16

   Note: If the placement test results indicate that the student is not academically prepared to enter the program, the student may be granted developmental or provisional admission status to the college and be placed in one or more developmental classes.
4) Submit official high school and college transcript or GED test results to the college.
5) Submit a student application for the LPN program.
6) Complete developmental coursework as determined by testing (see above).
7) Submit two personal references.
8) Submit an autobiography.
9) Take the nursing entrance examination and score at least 25th percentile or above.
10) Students will be selected when the above requirements have been completed on a "first come, first served" and space available basis.
11) Attend the LPN program orientation after acceptance and prior to the first nursing course.

Students transferring from other regionally accredited nursing programs may receive advance placement if:

1) The above requirements have been met.
2) Students were in good standing at their previous institution.
3) A personal reference from the nursing faculty of the previous institution has been submitted.
4) Nursing courses have been completed within two years prior to application.
5) Science courses have been completed within two years prior to application.

Licensed Practical Nursing (LPN): Diploma (Continued)

Students will submit the following no later than three weeks before clinical rotation in NSG 110:

1) A completed physical examination including drug screen.
2) A dental examination.
3) Payment for liability insurance.
4) CPR certification.
5) Rubella titer, PPD, and chickenpox immunity.

Retention Policies

1) Students must maintain a GPA of 2.0 or better. A "C" must be achieved in each course in order to progress to the next quarter of the nursing program. In all nursing courses and AHS 102, students must attain a 75% unit test average. AHS 102 requires an 80% score on the drug calculation exam.
2) Students must attain an overall numerical grade of 75 or better in each nursing course, including clinical rotations, to progress in the program.
3) A student must maintain CPR certification and carry professional liability insurance while enrolled in nursing courses.

Readmission Policies

1) All current admission requirements must be met before applying for readmission.
2) Students must continue to be in good standing with the college and the nursing program (i.e., no disciplinary or academic misconduct on record).
3) Unsuccessful students will be allowed only one readmission into the nursing course in which they were unsuccessful.
4) After an unsuccessful course, the student is required to wait at least one quarter before re-entering that course.
5) After the second failure, the student will be dropped from the nursing program, and faculty will assist the student in selecting another career path.

Physical Examination

Students must submit a completed physical examination form to the Nursing Office three weeks before clinical rotations begin in the Nursing Fundamentals course. The physical must contain current information (within the past three months). The form must include the results of a TB skin test of chest X-ray, rubella titer chicken pox immunity, drug screen, and evidence of tetanus booster within the last 10 years. A drug screen may be required at any time if student behavior warrants.

Liability Insurance

Students are required to purchase the the liability insurance program. In order for the liability insurance to be effective by the first clinical day, the fee will be due three weeks before the first week of clinical work. The approximate cost is $15.

Graduation Requirements

All courses in the nursing curriculum must be completed in order to graduate. Only students who have completed required coursework and receive the diploma are eligible to sit for the NCLEX-PN examination.

Students must demonstrate attainment of stated program competencies by achieving a predetermined score on the NLN and other diagnostic readiness tests. Students not achieving this score will be required to successfully complete remedial work prior to the completion of the program.

Licensed Practical Nursing (LPN): Diploma (Continued)

LPN Program Essential Skills

1) Meet admission standards.
2) Perform, read, and interpret vital body signs.
3) Administer and evaluate all types of medications following safe procedures.
4) Perform sterile and isolation techniques.
5) Assist in lifting, transferring, and moving patients according to set nursing standards.
6) Perform daily functions for patients, eg. feed, bathe, change bed linen, positioning, elimination, etc.
7) Read and interpret legal documents within the scope of nursing practice.
8) Perform documentation procedures.
9) Move throughout the clinical site in an efficient manner.
10) Communicate verbally and nonverbally with tact and understanding with patients, families, and coworkers.
11) Perform and maintain CPR certification.
12) Demonstrate progressive independence without constant supervision.
13) Demonstrate persistent appropriate personal grooming in class and clinical practice.
14) Follow the policies and procedures of the facility used for clinical practice.

Clinical Requirements Working Environment

Works inside well-lighted, ventilated patient care unit, spends 89-90% of time in private and semi-private patient care rooms. May possibly receive cuts from sharp instruments and infections from sharp instruments and infections from contaminated equipment and personnel. May be exposed to communicable diseases. May possibly incur injuries due to handling heavy equipment.

OSHA Risk Factor - Category A

A chance of exposure to blood and other body fluids is high and a condition of employment. The position exposes the employees to noxious smell, either toxic or non-toxic, exposure to toxic fumes, gases, vapors, mists of liquids which could, depending on the chemical, cause general or localized disabling conditions. as a result of inhalation, ingestion, or action on the skin.

Physical Demands

This position will primarily be medium work requiring the ability to lift up to 50 pounds with frequent lifting and/or carrying objects weighing up to 25 pounds. The ability to push or pull carts weighing up to 50 pounds is required. Occasional stooping, kneeling, reaching, and dexterity are required. Expressing or exchanging ideas by the spoken word is required. The ability to see and obtain impressions of shape, size, distance, motions, or other characteristics of objects is required. This requires a seeing acuity of near 20/20 vision, with clarity of vision at 20 inches or less, depth perception, four-way field vision, sharp eye focus, and the ability to identify and distinguish color. The ability to hear is essential. This position requires frequent sitting, standing, and/or walking. The ability to work under mental and physical stress regularly is required.

Licensed Practical Nursing (LPN): Diploma (Continued)

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 15**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
PSY 191	Introductory Psychology	5 **(Substituted for PSY 101)**

Occupational Curriculum		**Credit Hours: 84**
SCT 100	Introduction to Microcomputers	3
BUS 212	Anatomy and Terminology	5
AHS 101	Anatomy and Physiology	5
AHS 102	Drug Calculation and Administration	5
AHS 103	Nutrition and Diet Therapy I	2
AHS 104	Introduction to Health Care	3
NSG 110	Nursing Fundamentals	10
NSG 112	Medical Surgical Nursing I	9
NSG 113	Medical Surgical Nursing II	9
NSG 212	Pediatric Nursing	5
NSG 213	Obstetrical Nursing	5
NSG 215	Nursing Leadership	2
NPT 112	Medical Surgical I Practicum	7
NPT 113	Medical Surgical Nursing Practicum II	7
NPT 212	Pediatric Nursing Practicum	2
NPT 213	Obstetrical Nursing Practicum	3
NPT 215	Nursing Leadership Practicum	2

Total Credit Hours Required for Graduation: **99**

Medical Assisting: Program Guidelines

The Medical Assisting program develops the knowledge and skills needed to work in a private or group medical practice. After completing the required coursework, students intern as medical assistants. Graduates will receive either a diploma or degree in Medical assisting and are employable in the medical office environment.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.
Note: See below for additional program-specific admission requirements.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Medical Assisting Program Admission Requirements

1) Completion of application and related procedures.
2) Participation in interview with Program Director.
3) Submission of an autobiography.
4) Documentation of physical examination and immunization records three weeks prior to externship.
5) Ability to comply with health-related standards and meet minimum essential skill requirements.
6) Payment of fees for liability insurance.
7) Documentation of current CPR certification.

Medical Assisting Program Essential Skills

1) Meet admission standards.
2) Perform, read, and interpret vital body signs.
3) Administer and evaluate all types of medications following safe procedures.
4) Perform sterile and isolation techniques.
5) Assist in lifting , transferring, and moving patients according to safety standards.
6) Perform daily functions for patients, i.e. blood draws, testing, EKGs, assist with physical exams, etc.
7) Read and interpret legal documents within the scope of medical assisting practice.
8) Perform documentation procedures.
9) Move throughout the clinical site in an efficient manner.
10) Communicate verbally and non-verbally with tact and understanding with patients, families, and co-workers.
11) Perform and maintain CPR certification.
12) demonstrate progressive independence without constant supervision.
13) demonstrate persistent appropriate personal grooming in class and clinical work.
14) Follow the policies of the procedure used for clinical practice.

Clinical Requirements: Working Environment

Works inside well-lighted, ventilated patient care areas, spends 89-90% of time in patient care areas. May possibly receive cuts from sharp instruments and infections from sharp instruments and infections from contaminated equipment and personnel. May be exposed to communicable diseases. May possibly incur strains due to handling heavy equipment.

Note: These program guidelines continue on the next page.

Medical Assisting: Program Guidelines (Continued)

OSHA Risk Factor: Category A

A chance of exposure to blood and other body fluids is high and is a condition of course completion. The courses expose the student to noxious smell, either toxic or non-toxic; to toxic fumes, gases, vapors, mists, or liquids that could, depending on the chemical, cause general or localized disabling conditions as a result of inhalation, ingestion, or action on the skin.

Physical Demands: This position will primarily be medium work requiring the ability to lift up to 50 pounds with frequent lifting and/or carrying objects weighing up to 25 pounds. The ability to push or pull carts weighing up to 50 pounds is required. Occasional stooping, kneeling, reaching, and dexterity are required. Expressing or exchanging ideas by the spoken word is required. The ability to see and obtain impressions of shape, size, distance, motions, or other characteristics of objects is required. This requires a seeing acuity of near 20/20 vision, with clarity of vision at 20 inches or less, depth perception, four-way field vision, sharp eye focus, and the ability to identify and distinguish color. The ability to hear is essential. This position requires frequent sitting, standing, and/or walking. Ability to work under mental and physical stress regularly is required.

Retention Policies

1) Students must maintain a GPA of 2.0 or better. A "C" must be achieved in each course in order to progress to the next step in the Medical Assisting program.
2) Students must attain a numerical grade of 70 or better in each Medical Assisting course, including clinical rotations, to progress in the program.
3) A student must maintain CPR certification and carry professional liability insurance while enrolled in Medical Assisting courses.

Note: The course requirements for the Medical Assisting degree and diploma programs can be found on the following pages.

Medical Assisting: AAT Degree

Note: Information on the Medical Assisting program, including admission requirements can be found on the previous pages.

Requirements for the AAT Degree (Minimum Program Length 8 Quarters):

General Core Curriculum		**Credit Hours: 40**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 78-80**
BUS 101	Beginning Document Processing	5
BUS 102	Intermediate Document Processing	5
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
AHS 104	Introduction to Health Care	3
MAS 101	Legal Aspects of the Medical Office	2
MAS 103	Pharmacology	5
MAS 114	Medical Administrative Procedures I	3
	OR	
BUS 213	Medical Document Processing/Transcription	5
MAS 115	Medical Administrative Procedures II	3
MAS 106	Medical Office Procedures	4
MAS 108	Medical Assisting Skills I	5
MAS 109	Medical Assisting Skills II	4
MAS 112	Human Diseases	5
MAS 113	Maternal and Child Care	5
MAS 117	Medical Assisting Externship	8
MAS 118	Medical Assisting Seminar	5
MAS 151	ICD9 Coding I	3
MAS 152	ICD Coding II	3
MAS 153	CPT Coding	2

Total Credit Hours Required for Graduation: **118-120**

Medical Assisting: Diploma

Note: Information on the Medical Assisting program, including admission requirements can be found on the previous pages.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 15**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
PSY 191	Introductory Psychology	5 (Substituted for EMP 100)

Occupational Curriculum		**Credit Hours: 70 - 72**
BUS 101	Beginning Document Processing	5
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
AHS 101	Anatomy and Physiology	5
AHS 104	Introduction to Health Care	3
MAS 101	Legal Aspects of the Medical Office	2
MAS 103	Pharmacology	5
MAS 114	Medical Administrative Procedures I	3
	OR	
BUS 213	Medical Document Processing/Transcription	5
MAS 115	Medical Administrative Procedures II	3
MAS 106	Medical Office Procedures	4
MAS 108	Medical Assisting Skills I	5
MAS 109	Medical Assisting Skills II	4
MAS 112	Human Diseases	5
MAS 113	Maternal and Child Care	5
MAS 117	Medical Assisting Externship	8
MAS 118	Medical Assisting Seminar	5

Total Credit Hours Required for Graduation: **85-87**

Medical Coding: Certificate

The Medical Coding Certificate provides entry-level training in the Medical Coding protocols of ICD9 and CPT4. Other areas of study covered in the program include Anatomy, terminology, and human diseases.

Admission requirements: 1) Attainment of 16 or more years of age; 2) documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
ENG 111	Business English	5
SCT 100	Introduction to Microcomputers	3
BUS 101	Beginning Document Processing	5
BUS 212	Anatomy and Terminology	5
AHS 100	Anatomy **(Online Only)**	5
	OR	
AHS 101	Anatomy and Physiology	5
MAS 112	Human Diseases	5
MAS 151	ICD9 Coding I	3
MAS 152	ICD9 Coding II	3
MAS 153	CPT4 Coding	2
Total Credit Hours Required for Graduation:		**36**

Note: The Medical Coding Certificate is only offered online.

Nail Technician: Certificate

The Nail Technician Certificate Program provides certification of training for persons desiring to become nail technicians. The courses are contained in the Cosmetology program and may be applied toward a diploma in that program.

Admission requirements: 1) Attainment of 16 or more years of age, and 2) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
COS 100	Introduction to Cosmetology	5
COS 112	Manicuring and Pedicuring	3
COS 117	Salon/Shop Management	4
COS 118	Nail Care I	7
COS 119	Nail Care II	6
Total Credit Hours Required for Graduation:		**25**

Occupational Therapy Assistant: AAT Degree

The Occupational Therapy Assistant program prepares students to implement treatment procedures and plans to clients with limitations in occupational performance under the supervision of an occupational therapist, per American Occupational Therapy Association (AOTA) standards and state regulations. Occupational Therapy Assistants (OTAs) use a variety of everyday activities to help people achieve independence. Services are provided to individuals of all ages who have physical, developmental, emotional, and social deficits, and who, because of those deficits, need specialized assistance to lead productive and independent lives. OTAs work as a team to assist the impaired individual in returning to a satisfying life. Other OTA responsibilities include clerical duties, record keeping, and assistance with appropriate evaluation.

The college's OTA program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the AOTA. AOTA's address is 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220, and their phone number is (301) 652-2682. Graduates are able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy. After successful completion of this examination, the individual will be a Certified Occupational Therapy Assistant. Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification examination. A felony conviction may affect a graduate's ability to sit for the NBCOT certification or obtain state licensure.

All Level II fieldwork must be completed within 18 months of of completion of academic preparation.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.
Note: See below for additional program-specific admission requirements.

Occupational Therapy Assistant Program-Specific Admission Requirements

1) Achieve program ready status as demonstrated by ASSET scores.
2) Achieve satisfactory scores on the Health Occupation Aptitude Test.
3) Documentation of 30 to 40 hours of volunteer work in at least two different clinical sites and settings with an OTR or COTS supervision.
4) Submit a student application for the OTA program.
5) Supply a brief autobiography including a description of why the student is interested in occupational therapy.
6) Submit the results of a physical examination one month prior to Level I fieldwork. The physical examination must include a TB skin test or chest X-ray and the results of a drug screen.
7) Documentation of CPR certification prior to Level I fieldwork.
8) Documentation of liability insurance paid through Northwestern prior to Level I fieldwork.
9) Schedule a personal interview with the designated college official upon completion of the above requirements.
10) Student files must be complete with the above requirements by December 31 of the year prior to desired acceptance.
11) Students will be selected when the above requirements have been completed on a "first come, first served" and space available policy.

Occupational Therapy Assistant: AAT Degree(Continued)

Essential Skill Requirements

In order to complete the OTA program at the college, students will be required to meet the essential skill requirements of the program described below:

1) Be able to read and interpret documentation.
2) Be able to follow policies and procedures required in work setting and fieldwork setting.
3) Be aware of personal performance and identify need of supervision.
4) Be physically capable of lifting, transferring, and moving patients, equipment, etc.
5) Demonstrate independent skills without need of constant supervision.
6) Demonstrate and maintain professional behavior.
7) Demonstrate warmth and patience to ensure trust and respect from patients, colleagues, etc.
8) Be able to use imagination and ingenuity in adapting to meet the environmental needs of others.
9) Be flexible and willing to change as necessary to meet the environmental needs of others.

Physical and Clinical Requirements

Students will be involved in field work experiences in various settings including hospitals, long term care facilities, rehabilitation centers, home health, school systems, and mental health settings. Students may be exposed to communicable diseases and incur strains due to lifting, transferring, and moving patients. Students may also be exposed to body fluids and blood. Due to the nature of occupational therapy practice, the work is considered medium work requiring the ability to lift up to 50 pounds, with frequent carrying and lifting objects weighing up to 25 pounds. The ability to push/pull carts, wheel chairs, etc. weighing 50 pounds in required. The job can be tiring due to frequent stooping, kneeling, reaching, standing, sitting, and/or walking. Manual dexterity is needed for manipulation of treatment equipment. The ability to communicate and express ideas by spoken words and written expression is required. There may be added mental and physical stress in this allied health field.

Transfer Students

Students transferring from regionally accredited colleges must meet all of Northwestern's general and OTA program-specific admission requirements. In addition:

1) Transfer students must be in good standing at their previous institution.
2) Transfer students must submit a letter of recommendation from a professor at their previous institution.
3) Transfer students maybe required to document proficiency or repeat occupational therapy courses taken more than three years prior to admission to the OTA program.
4) Transfer students maybe required to document proficiency or repeat science courses taken more than three years prior to admission to the OTA program.
5) Only courses with a grade of "C" or better will be acceptable.

Retention

1) OTA students must maintain a cumulative GPA of 2.0 to remain in the program.
2) OTA students must maintain a "C" (70 or higher) grade in each course including fieldwork in order to progress to the next quarter of the OTA program.
3) OTA students must maintain CPR certification.
4) OTA students must maintain liability insurance.

Occupational Therapy Assistant: AAT Degree(Continued)

Readmission

1) Students withdrawing or failing a class after admission into the OTA program will be allowed to return to the program one time when the class is next offered.
2) Students withdrawing or failing a second time must be readmitted to the program and repeat all coursework.
3) Students seeking readmission must meet all current admission requirements.
4) Students seeking readmission must be in good standing with the college.

Graduation

All coursework in the OTA program must be satisfactorily completed in order to graduate. Only students who have completed the required coursework and received the AAT degree will be eligible to sit for the National Board of Certification in Occupational Therapy examination. Graduates will be eligible to apply for licensure, which is required in the state of Georgia. Licensure is contingent upon examination results.

Requirements for the AAT Degree (Minimum Program Length 8 Quarters):

General Core Curriculum		**Credit Hours: 45**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
PSY 201	Abnormal Psychology	5
SOC 191	Introduction to Sociology	5
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 82**
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
OTA 101	Introduction to Occupational Therapy	3
OTA 102	Growth and Development	5
OTA 103	Developmental Tasks	3
OTA 104	Conditions in Occupational Therapy	5
OTA 105	Analysis of Human Movement	6
OTA 201	Psychosocial Dysfunction	7
OTA 202	Psychosocial Dysfunction Treatment Methods	3
OTA 204	Pediatric Issues	5
OTA 206	Physical Dysfunction	7
OTA 207	Physical Dys function Treatment Methods	3
OTA 209	Geriatric Issues	5
OTA 212	Occupational Therapy Trends and Issues	3
OTA 213	Therapeutic Adaptations	5
OTA 221	Level II - Fieldwork A	12
OTA 222	Level II - Fieldwork B	12

Total Credit Hours Required for Graduation: 137

Patient Care Technician: Certificate

The Patient Care Technician program, in partnership with Hutcheson Medical Center, provides a quick point of entry into the job market at Hutcheson. While employed at Hutcheson, the student will continue his or her education in one of the several health programs offered at Northwestern.

Admission requirements: 1) Attainment of 17 or more years of age; 2) documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

OSHA Risk Factor: Category A

A chance of exposure to blood and other body fluids is high and is a condition of course completion. The courses expose the student to noxious smell, either toxic or nontoxic; to toxic fumes, gases, vapors, mists, or liquids that could, depending on the chemical, cause general or localized disabling conditions as a result of inhalation, ingestion, or action on the skin.

Physical Demands: This position will primarily be medium work requiring the ability to lift up to 50 pounds with frequent lifting and/or carrying objects weighing up to 25 pounds. The ability to push or pull carts weighing up to 50 pounds is required. Occasional stooping, kneeling, reaching, and dexterity are required. Expressing or exchanging ideas by the spoken word is required. The ability to see and obtain impressions of shape, size, distance, motions, or other characteristics of objects is required. This requires a seeing acuity of near 20/20 vision, with clarity of vision at 20 inches or less, depth perception, four-way field vision, sharp eye focus, and the ability to identify and distinguish color. The ability to hear is essential. This position requires frequent sitting, standing, and/or walking. Ability to work under mental and physical stress regularly is required.

Occupational Curriculum		**Credit Hours**
NSG 110	Nursing Fundamentals	10
BUS 212	Anatomy and Terminology	5
AHS 104	Introduction to Allied Health	3
Total Credit Hours Required for Graduation:		**18**

Pharmacy Assistant: Certificate

The Pharmacy Assistant Certificate program gives students the knowledge, skills, and attitudes needed to succeed in the pharmaceutical field. Program graduates will be competent in the following areas: mathematics, microcomputer application, anatomy and physiology, fundamental concepts and principles in the pharmaceutical field, drug calculation and administrative principles of receiving, storing, and dispensing medications, and skills applications.

Admission requirements: 1) Attainment of 17 or more years of age; 2) documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Occupational Curriculum		**Credit Hours**
MAT 101	General Mathematics	5
AHS 101	Anatomy and Physiology	5
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
PHR 101	Pharmacy Technology Fundamentals	5
AHS 102	Drug Calculation and Administration	3
PHR 102	Principles of Dispensing Medicines	6
DIS 150	Directed Independent Study	3
Total Credit Hours Required for Graduation:		**35**

Please Note: DIS 150 may require some clinical hours during the daytime.

Pharmacy Technology: AAT Degree

The Pharmacy Technology degree is designed to provide an individual with the entry level skills required for success in a retail pharmacy or a hospital-based pharmacy department. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and replacement. Graduates are prepared to function as pharmacy technicians in positions requiring preparations of medications according to prescription under the supervision of a pharmacist.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the AAT Degree (Minimum Program Length 7 Quarters):

General Core Curriculum		**Credit Hours: 30**
ECO 191	Principles of Economics	5
	OR	
ECO 193	Macroeconomics	5
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
PSY 191	Introductory Psychology	5
SPC 191	Fundamentals of Speech	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 62 - 64**
AHS 105	Basic Inorganic Chemistry	4
AHS 109	Medical Terminology for Allied Health	3
	OR	
BUS 212	Anatomy and Terminology	5
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
PHR 100	Pharmaceutical Calculations	5
PHR 101	Pharmacy Technology Fundamentals	5
PHR 102	Principles of Dispensing Medications	5
PHR 103	Principles of Sterile Medication Preparation	5
PHR 105	Pharmacy Technology Practicum	7
PHR 106	Advanced Pharmacy Technology Principles	5
PHR 107	Advanced Pharmacy Technology Practicum	7
SCT 100	Introduction to Microcomputers	3

Total Credit Hours Required for Graduation: 92 - 94

Phlebotomy Technician: Certificate

The Phlebotomy Technician program trains students to draw and process blood specimens. Phlebotomy technicians typically work in concert with medical lab technicians in hospitals or other healthcare organizations. Topics covered include human anatomy, anatomical terminology, venipuncture, and clinical practice.

Admission requirements: 1) Attainment of 16 or more years of age; 2) documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

OSHA Risk Factor: Category A

A chance of exposure to blood and other body fluids is high and is a condition of course completion. The courses expose the student to noxious smell, either toxic or nontoxic; to toxic fumes, gases, vapors, mists, or liquids that could, depending on the chemical, cause general or localized disabling conditions as a result of inhalation, ingestion, or action on the skin.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
AHS 101	Anatomy and Physiology	5
BUS 212	Anatomy and Terminology	5
PHL 103	Introduction to Venipuncture	4
PHL 105	Clinical Practice	8
Total Credit Hours Required for Graduation:		**22**

Please Note: PHL 105 may require some clinical hours during the daytime.

Surgical Technology: Program Guidelines

The Surgical Technology program prepares students to work with nurses and surgeons to help provide the best possible care of surgical patients. They function as a part of the operating room team responsible for the cleanliness, safety, and efficiency of the operating room that leads to good patient care. Their experience with aseptic surgical techniques qualifies them to prepare materials for use at the operating table and to assist in the use of those materials.

Admission requirements: 1) Attainment of 18 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Surgical Technology Admission Requirements

1) Completion of application and related procedures.
2) Submission of an autobiography.
3) Documentation of a physical examination and immunization records.
4) Ability to comply with health related standards and meet essential skill requirements.
5) Liability insurance payment.
6) CPR certification.

Essential Skill Requirements

1) Perform, read, and interpret vital body signs.
2) Perform sterile and isolation techniques.
3) Assist in lifting, moving, and transferring patients according to safety procedures.
4) Perform documentation procedures.
5) Perform and maintain CPR certification.
6) Demonstrate progressive independence without constant supervision.
7) Demonstrate persistent appropriate personal grooming in class and clinical practice
8) Follow the policies and procedures of the facility for clinical use.
9) Manual dexterity is needed for manipulation of treatment equipment.
10) The ability to communicate and express ideas by spoken words and written expression is required.

There may be added mental and physical strain in this field. Students maybe exposed to communicable diseases and incur strains due to lifting, transferring, and moving patients. Students may also be exposed to body fluids and blood.

Retention Policies

1) Students must maintain a GPA of 2.0 or better. A "C" must be achieved in each course in order to progress to the next quarter of the program.
2) Students must attain a numerical grade of 70 or better in each Surgical Technology lecture course and 80 in clinical rotations to progress in the program.
3) A student must maintain CPR certification and carry professional liability insurance while enrolled in Surgical Technology courses.

OSHA Risk Factor - Category A

A chance of exposure to blood and other body fluids is high and a condition of employment. The position exposes the employees to noxious smell, either toxic or non-toxic, exposure to toxic fumes, gases, vapors, mists of liquids which could, depending on the chemical, cause general or localized disabling conditions. as a result of inhalation, ingestion, or action on the skin.

Note: The course requirements for the Surgical Technology degree and diploma programs can be found on the following pages.

Surgical Technology: AAT Degree

Note: Information on the Surgical Technology program, including admission requirements, can be found on the previous pages.

Requirements for the AAT Degree (Minimum Program Length 8 Quarters):

General Core Curriculum		**Credit Hours: 45**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
BIO 193	Anatomy and Physiology I	5
BIO 194	Anatomy and Physiology II	5
BIO 197	Microbiology	5
MAT 191	College Algebra	5

Occupational Curriculum		**Credit Hours: 66**
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
AHS 104	Introduction to Health Care	3
SUR 101	Introduction to Surgical Technology	6
SUR 102	Principles of Surgical Technology	5
SUR 109	Surgical Patient Care	3
SUR 110	Surgical Pharmacology	3
SUR 112	Introduction to Surgical Practicum	7
SUR 203	Surgical Procedures I	6
SUR 204	Surgical Procedures II	6
SUR 213	Specialty Surgical Practicum	8
SUR 214	Advanced Specialty Surgical Practicum	8
SUR 224	Seminar in Surgical Technology	3

Total Credit Hours Required for Graduation: 111

Surgical Technology: Diploma

Note: Information on the Surgical Technology program, including admission requirements can be found on the previous pages.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 15**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
PSY 191	Introductory Psychology	5

Occupational Curriculum		**Credit Hours: 74**
BUS 212	Anatomy and Terminology	5
SCT 100	Introduction to Microcomputers	3
AHS 101	Anatomy & Physiology	5
AHS 104	Introduction to Health Care	3
SUR 101	Introduction to Surgical Technology	6
SUR 102	Principles of Surgical Technology	5
SUR 108	Surgical Microbiology	3
SUR 109	Surgical Patient Care	3
SUR 110	Surgical Pharmacology	3
SUR 112	Introduction to Surgical Practicum	7
SUR 203	Surgical Procedures I	6
SUR 204	Surgical Procedures II	6
SUR 213	Specialty Surgical Practicum	8
SUR 214	Advanced Specialty Surgical Practicum	8
SUR 224	Seminar in Surgical Technology	3

Total Credit Hours Required for Graduation: **89**

INDUSTRIAL TECHNOLOGY

PROGRAM DESCRIPTIONS AND REQUIREMENTS

Advanced General Machinist: Certificate

The Advanced General Machinist Certificate provides advanced training as a machinist. To enroll in the Advanced General Machinist Certificate, a student must have graduated from the Basic Machine Tool Technology Diploma program or have five or more years of industry experience as a machinist.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Note: Students must have five years industry experience as a machinist.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
MCH 109	Lathe Operations I	6
MCH 110	Lathe Operations II	6
MCH 112	Surface Grinding	3
MCH 115	Mill Operations I	6
MCH 116	Mill Operations II	6
MCA 201	Advanced Milling I	7
MCA 203	Advanced Milling II	6
MCA 205	Advanced Lathe Operation I	7
MCA 207	Advanced Lathe Operation II	6
MCA 208	Advanced Grinding I	4
MCA 209	Advanced Grinding II	3
Total Credit Hours Required for Graduation:		**60**

Advanced Mechanical Drafting: Certificate

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the Certificate (Minimum Program Length 4 Quarters):

Occupational Curriculum		**Credit Hours**
DDS 201	Strength of Materials	5
DDS 225	Principles of Metallurgy	4
	OR	
DDS 226	Manufacturing Processes	4
DDS 227	Jig, Fixture, and Die Drawing	6
DDS 229	Gears and Cams	6
DDS 230	Mechanisms I	7
DDS 232	Mechanical Power Transmission	6
Total Credit Hours Required for Graduation:		**34**

Air Conditioning Technology: Diploma

The Air Conditioning Technology Program prepares students for careers in the air conditioning field. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of air conditioning technology theory and practical application necessary for successful employment using both manual and computerized air conditioning technology systems. Graduates will receive an Air Conditioning Technology Diploma that qualifies them as entry-level Conditioned Air Technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 13**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 72**
ACT 100	Refrigeration Fundamentals	4
ACT 101	Principles and Practices of Refrigeration	7
ACT 102	Refrigeration Components	7
ACT 103	Electrical Fundamentals	7
ACT 104	Electric Motor Controls	4
ACT 105	Electric Components	5
ACT 106	Electric Control Systems and Installation	4
ACT 107	Air Conditioning Principles	8
ACT 108	Air Conditioning Systems and Installation	3
ACT 109	Troubleshooting Air Conditioning Systems	7
ACT 110	Gas Heating Systems	5
ACT 111	Heating Pumps and Related Systems	6
IFC 100	Industrial Safety Precautions	2
SCT 100	Introduction to Microcomputers	3

Total Credit Hours Required for Graduation: 85

CAD Operator: Certificate

The CAD Operator Training Program prepares students to specialize in the drawing field. The program emphasizes a combination of computer aided drafting (CAD) theory and practical applications necessary for successful employment. The program is designed primarily for entry-level drafters to continue training after employment.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours:**
MAT 101	General Mathematics	5
DDF 107	CAD Fundamentals	6
DDF 102	Size and Shape Description I	5
DDF 103	Size and Shape Description II	5
DDF 104	Pictorial Drawing	3
DDF 106	Fasteners	6
DDF 105	Auxiliary Views	3
DDF 109	Assembly Drawing I	5
Total Credit Hours Required for Graduation:		**38**

Commercial Truck Driving: Certificate

The Commercial Truck Driving program provides basic training in the principles and skills of commercial truck operations. The program is based on the definition of a truck driver as one who operates commercial motor vehicles of different types and sizes on all types of roads. The truck driver maintains proper documentation on the load and the vehicle and is responsible for ensuring that the vehicle is in safe operating condition. In doing this, the driver must comply with all federal, state, and local laws and regulations.

Admission Requirements: 1) Attainment of 18 or more years of age; 2) Obtaining an appropriate license; 3) Have no more than eight points or four moving violations on the Georgia violator scale; 4) Have no DUI in the last seven years; 5) Obtain MVR report for the last three years; 6) Achieve a program ready score on the placement exam; 7) Pass DOT physical examination and drug test fulfilling requirements of the Motor Carrier Safety regulations, current within 30 days; and 8) Completion of general admission.

The items above are minimum requirements for program entrance. A person must be 21 years of age or older to drive for a company involved in interstate commerce, and some companies require beginning drivers to be 25 years of age and pass a drug test.

Course Outline

The standard curriculum for the Commercial Truck Driving program is an eight-week, 240 hour program. The program is predicated on a student-to-equipment ratio of three-to-one and an student-to-instructor ratio of six-to-one. Each student should receive approximately 750 miles of driving on various public roads. The four courses making up the course follow:

Note: Some students may be required to take developmental classes if a need is indicated by placement testing. For companies interested in developing a cooperative agreement with the college, CTD 104 - Internship can replace CTD 103 - Advanced Operations

Occupational Curriculum		**Credit Hours:**
CTD 101	Fundamentals of Commercial Truck Driving	5
CTD 102	Basic Operation	5
CTD 103	Advanced Operation	5
	OR	
CTD 104	Internship	5
Total Credit Hours Required for Graduation:		**15**

CNC Specialist: Certificate

The CNC Specialist Certificate provides training in computer numerically controlled (CNC) equipment. To enroll in the CNC Specialist Certificate, a student must have graduated from the Basic Machine Tool Technology Diploma program or have five or more years of industry experience as a machinist.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Note: Students must have five years industry experience as a machinist.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
MCA 211	CNC Fundamentals	7
MCA 213	CNC Mill Manual Programming	8
MCA 215	CNC Lathe Manual Programming	8
MCA 217	CNC Practical Applications	6
MCA 219	CAD/CAM Programming	7
MCH 116	Mill Operations II	6 **(Elective)**
Total Credit Hours Required for Graduation:		**42**

Drafting - Residential Design: Certificate

The Residential Design Certificate program is designed for those students interested in residential design drawing. This 15-hour program combines theory with "hands-on" training to develop the skills, attitudes, and knowledge necessary to succeed as an entry-level CAD operator with an emphasis on residential drawing.

Admission requirements: 1) Attainment of 16 or more years of age; 2) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 2 Quarters):

Occupational Curriculum		**Credit Hours:**
DDS 205	Residential Architectural Drawing I	6
DDS 206	Mechanical Systems for Architecture	3
DDS 208	Residential Architectural Drawing II	6
Total Credit Hours Required for Graduation:		**15**

Drafting Technology: AAT Degree

The Drafting Technology program prepares students for employment in a variety of positions in the field of drafting. The program introduces, develops, and reinforces academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program also provides opportunities to upgrade present knowledge or to retrain in drafting.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 7 Quarters):

General Core Curriculum		**Credit Hours: 35**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
ENG 195	Technical Communications	5
	OR	
SPC 191	Fundamentals of Speech	5
MAT 191	College Algebra	5
MAT 194	Pre-Calculus	5
PSY 191	Introduction to Psychology	5
DDS 201	Strength of Materials	5

Occupational Curriculum		**Credit Hours: 32**
DDF 100	Drafting Fundamentals	6
	OR	
DDF 101	Introduction to Drafting	6
DDF 102	Size and Shape Description I	5
DDF 107	CAD Fundamentals	6
DDF 111	Intermediate CAD	6
DDF 112	3D Drawing and Modeling	6
SCT 100	Introduction to Microcomputers	3

Choose one of the following areas of specialization:

Mechanical Drafting Specialization		**Credit Hours: 29**
DDF 103	Size and Shape Description II	5
DDF 105	Auxiliary Views	3
DDF 106	Fasteners	6
DDF 108	Intersections and Developments	5
DDF 109	Assembly Drawings I	5
	Electives	5

Architectural Drafting Specialization		**Credit Hours: 29**
DDS 203	Surveying I	3
	OR	
DDS 204	Estimating	3
DDS 205	Residential Architectural Drawing I	6
DDS 207	Mechanical Systems for Architecture	3
DDS 208	Residential Architectural Drawing II	6
	Electives	11

Total Credit Hours Required for Graduation: 96

Drafting Technology: Diploma

The Drafting Technology program prepares students for employment in a variety of positions in the field of drafting. The program introduces, develops, and reinforces academic and technical knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program also provides opportunities to upgrade present knowledge and skills or to retrain in drafting.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
EMP 100	Interpersonal Relationships and Professional Development	3
ENG 101	English	5
MAT 103	Algebraic Concepts	5
MAT 104	Geometry and Trigonometry	5

Occupational Curriculum		**Credit Hours: 32**
DDF 100	Drafting Fundamentals	6
	OR	
DDF 101	Introduction to Drafting	6
DDF 102	Size and Shape Description I	5
DDF 107	CAD Fundamentals	6
DDF 111	Intermediate CAD	6
DDF 112	3D Drawing and Modeling	6
SCT 100	Introduction to Microcomputers	3

Choose one of the following areas of specialization:

Mechanical Drafting Specialization		**Credit Hours: 27**
DDF 103	Size and Shape Description II	5
DDF 105	Auxiliary Views	3
DDF 106	Fasteners	6
DDF 108	Intersections and Developments	5
DDF 109	Assembly Drawings I	5
	Electives	3

Architectural Drafting Specialization		**Credit Hours: 27**
DDS 203	Surveying I	3
	OR	
DDS 204	Estimating	3
DDS 205	Residential Architectural Drawing I	6
DDS 207	Mechanical Systems for Architecture	3
DDS 208	Residential Architectural Drawing II	6
	Electives	9

Total Credit Hours Required for Graduation: **77**

Electrical Control Systems: Diploma

The Electrical Control Systems program is a sequence of courses designed to prepare students in the field of electrical control systems. Learning opportunities develop academic and professional knowledge, along with the skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in Programmable Logic Controllers (PLCs), electrical controls, and instrumentation. Graduates of the program receive a Diploma that qualifies them for employment as industrial electricians or industrial control technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 13**
ENG 101	English	5
	OR	
ENG 111	Business English	5
MAT 103	Algebraic Concepts	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 65-68**
SCT 100	Introduction to Microcomputers	3
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4
IDS 101	Industrial Computer Applications	5
IDS 103	Industrial Wiring	6
IDS 105	DC and AC Motors	3
IDS 110	Fundamentals of Motor Controls	3
IDS 113	Magnetic Starters and Braking	3
IDS 115	Two-Wire Control Circuits	2
IDS 121	Advanced Motor Controls	2
IDS 131	Variable Speed Motor Control	3
	OR	
ELC 212	Motor Controls	6
IDS 141	Basic Industrial PLCs	6
IDS 142	Industrial PLCs	6
IDS 209	Industrial Instrumentation	6
	OR	
ELC 211	Process Control	6
	Elective	3

Total Credit Hours Required for Graduation	**78-81**

Electrical Control Systems, PLC Specialist: Certificate

The Programmable Logic Controller (PLC) Specialist Certificate Program prepares industrial maintenance personnel to install, operate, and troubleshoot programmable logic controllers applicable to a specific industry.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Certificate (Minimum Program Length 3 Quarters):

Occupational Curriculum		**Credit Hours**
IDS 141	Basic Industrial PLCs	6
IMT 119	Fundamentals of Motor Controls	3
IMT 120	Magnetic Starters and Braking	3
IDS 142	Industrial PLCs	6
	Electives	4
Total Credit Hours Required for Graduation:		**22**

Electronics Fundamentals: Diploma

The Electronics Fundamentals Diploma Program prepares students for entry-level positions in electronics technology professions. Learning opportunities develop academic, technical, and professional knowledge as well as the skills required for job acquisition, retention, and advancement. The program emphasizes a combination of electronics technology theory and practical application necessary for successful employment using both manual and computerized electronic systems.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 103	Algebraic Concepts	5
MAT 104	Geometry and Trigonometry	5
EMP 100	Interpersonal Relations & Professional Development	3

Occupational Curriculum		**Credit Hours: 47**
SCT 100	Introduction to Microcomputers	3
ELC 104	Soldering Technology	2
ELC 108	Direct Current Circuits II	4
ELC 110	Alternating Current II	4
ELC 115	Solid State Devices II	4
ELC 117	Linear Integrated Circuits	4
ELC 118	Digital Electronics I	4
ELC 119	Digital Electronics II	4
ELC 120	Microprocessors I	4
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4

Total Credit Hours Required for Graduation: 65

Electronics Technology, Computer Servicing: AAT Degree

The Computer Servicing Specialization prepares students to work in the computer service industry. Learning opportunities develop academic, technical, and professional knowledge, as well as the skills required for job acquisition, retention, and advancement. The program emphasizes a combination of electronics technology theory and practical applications necessary for successful employment as computer service and repair technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the AAT Degree (Minimum Program Length 7 Quarters):

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communication	5
MAT 191	College Algebra	5
MAT 194	Precalculus	5
PSY 191	Introductory Psychology	5
	OR	
ECO 191	Principles of Economics	5

Occupational Curriculum		**Credit Hours: 47**
SCT 100	Introduction to Microcomputers	3
ELC 104	Soldering Technology	2
ELC 108	Direct Current Circuits II	4
ELC 110	Alternating Current II	4
ELC 115	Solid State Devices II	4
ELC 117	Linear Integrated Circuits	4
ELC 118	Digital Electronics I	4
ELC 119	Digital Electronics II	4
ELC 120	Microprocessors I	4
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4

Computer Servicing Specialization		**Credit Hours: 24-27**
ELC 217	Computer Hardware	7
	OR	
CIS 122	Installation and Maintenance	7
ELC 219	Networking I	4
	OR	
CIS 1140	Networking Fundamentals	6
ELC 218	Operating Systems Technology	7
	OR	
CIS 103	Operating Systems	6
ELC 286 or CIS 286	CompTIA A+ Certification	5
	Technically Related Electives	2
Total Credit Hours Required for Graduation:		**101-104**

Electronics Technology, Computer Servicing: Diploma

The Computer Servicing Specialization prepares students to work in the computer service industry. Learning opportunities develop academic, technical, and professional knowledge, as well as the skills required for job acquisition, retention, and advancement. The program emphasizes a combination of electronics technology theory and practical applications necessary for successful employment as computer service and repair technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 103	Algebraic Concepts	5
MAT 104	Geometry and Trigonometry	5
EMP 100	Interpersonal Relations & Prof. Development	3

Occupational Curriculum		**Credit Hours: 47**
SCT 100	Introduction to Microcomputers	3
ELC 104	Soldering Technology	2
ELC 108	Direct Current Circuits II	4
ELC 110	Alternating Current II	4
ELC 115	Solid State Devices II	4
ELC 117	Linear Integrated Circuits	4
ELC 118	Digital Electronics I	4
ELC 119	Digital Electronics II	4
ELC 120	Microprocessors I	4
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4

Computer Servicing Specialization		**Credit Hours: 24-27**
ELC 217	Computer Hardware	7
	OR	
CIS 122	Installation and Maintenance	7
ELC 219	Networking I	4
	OR	
CIS 1140	Networking Fundamentals	6
ELC 218	Operating Systems Technology	7
	OR	
CIS 103	Operating Systems	6
ELC 286 or CIS 286	CompTIA A+ Certification	5
	Technically Related Electives	2

Total Credit Hours Required for Graduation: **89-92**

Electronics Technology, Industrial Control: AAT Degree

The Industrial Control Specialization prepares students to work in industrial electronics. Learning opportunities develop academic, technical, and professional knowledge, as well as the skills required for job acquisition, retention, and advancement. The program emphasizes both electronics technology theory and practical applications in the industrial electronics field.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

General Core Curriculum		**Credit Hours: 30**
ENG 191	Composition and Rhetoric I	5
ENG 193	Composition and Rhetoric II	5
	OR	
HUM 191	Introduction to Humanities	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communication	5
MAT 191	College Algebra	5
MAT 194	Precalculus	5
PSY 191	Introductory Psychology	5
	OR	
ECO 191	Principles of Economics	5

Occupational Curriculum		**Credit Hours: 47**
SCT 100	Introduction to Microcomputers	3
ELC 104	Soldering Technology	2
ELC 108	Direct Current Circuits II	4
ELC 110	Alternating Current II	4
ELC 115	Solid State Devices II	4
ELC 117	Linear Integrated Circuits	4
ELC 118	Digital Electronics I	4
ELC 119	Digital Electronics II	4
ELC 120	Microprocessors I	4
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4

Industrial Control Specialization		**Credit Hours: 24-29**
ELC 211	Process Control	6
ELC 212	Motor Controls	6
ELC 216	Robotics	2
	OR	
IDS 141	Basic Industrial PLCs	6
ELC 213	Programmable Logic Control II	5
	OR	
IDS 142	Industrial PLCs	6
ELC 214	Mechanical Devices	3
	OR	
IDS 115	Two-Wire Control Circuits	2
ELC 215	Fluid Power	3
	OR	
IDS 110	Fundamentals of Motor Control	3

Total Credit Hours Required for Graduation:	**101-106**

Electronics Technology, Industrial Control: Diploma

The Industrial Control Specialization prepares students to work in industrial electronics. Learning opportunities develop academic, technical, and professional knowledge, as well as the skills required for job acquisition, retention, and advancement. The program emphasizes both electronics technology theory and practical applications in the industrial electronics field.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 6 Quarters):

General Core Curriculum		**Credit Hours: 18**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 103	Algebraic Concepts	5
MAT 104	Geometry and Trigonometry	5
EMP 100	Interpersonal Relations & Prof. Development	3

Occupational Curriculum		**Credit Hours: 47**
SCT 100	Introduction to Microcomputers	3
ELC 104	Soldering Technology	2
ELC 108	Direct Current Circuits II	4
ELC 110	Alternating Current II	4
ELC 115	Solid State Devices II	4
ELC 117	Linear Integrated Circuits	4
ELC 118	Digital Electronics I	4
ELC 119	Digital Electronics II	4
ELC 120	Microprocessors I	4
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
IFC 103	Solid State Devices I	4

Industrial Control Specialization		**Credit Hours: 24-29**
ELC 211	Process Control	6
ELC 212	Motor Controls	6
ELC 216	Robotics	2
	OR	
IDS 141	Basic Industrial PLCs	6
ELC 213	Programmable Logic Control II	5
IDS 142	Industrial PLCs	6
ELC 214	Mechanical Devices	3
	OR	
IDS 115	Two-Wire Control Circuits	2
ELC 215	Fluid Power	3
	OR	
IDS 110	Fundamentals of Motor Control	3

Total Credit Hours Required for Graduation: **89-94**

Engine Lathe Operator: Certificate

The Engine Lathe Operator Certificate teaches students to effectively operate the metal lathe. Students become proficient in blueprint reading, general mathematics, and the characteristics of metal/heat treatment processes.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
MAT 101	General Math	5
MCH 101	Introduction to Machine Tool	6
MCH 102	Blueprint Reading I	5
MCH 107	Characteristics of Metal/Heat Treatment	4
MCH 109	Lathe Operation I	6
MCH 110	Lathe Operation II	6
	Elective	4
Total Credit Hours Required for Graduation:		**36**

Machine Tool Technology: Diploma

The Machine Tool Technology Diploma program prepares students to work as machinists. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of machine tool technology theory and practical applications necessary for successful employment using both manual and computerized machine tool technology systems. Graduates receive a Machine Tool Technology Diploma to work as a qualified Machine Tool Technician.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Note: Students must be able to lift 50 pounds.

Transfer students must meet the regular admission requirements and be in good standing at a regionally accredited diploma or degree granting institution.

Requirements for the Diploma (Minimum Program Length 5 Quarters):

General Core Curriculum		**Credit Hours: 13**
ENG 111	Business English	5
	OR	
ENG 101	English	5
MAT 101	General Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 72**
MCH 101	Introduction to Machine Tools	6
MCH 102	Blueprint Reading I	5
MCH 104	Machine Tool Math I	5
MCH 105	Machine Tool Math II	5
MCH 107	Characteristics of Metal/Heat Treatment	4
MCH 109	Lathe Operations I	6
MCH 110	Lathe Operations II	6
MCH 112	Surface Grinding Operations	3
MCH 114	Blueprint Reading II	5
MCH 115	Mill Operations I	6
MCH 116	Mill Operations II	6
MCH 211	CNC Fundamentals	7
SCT 100	Introduction to Microcomputers	3
	Electives	5

Total Credit Hours Required for Graduation: **85**

Milling Machine Operator: Certificate

The Milling Machine Operator Certificate teaches students to effectively operate milling machines. Students become proficient in blueprint reading, general mathematics, and the necessary skills and knowledge to obtain employment as a milling machine operator.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the Certificate:

Occupational Curriculum		**Credit Hours**
MAT 101	General Math	5
MCH 101	Introduction to Machine Tool	6
MCH 102	Blueprint Reading I	5
MCH 107	Characteristics of Metal/Heat Treatment	4
MCH 115	Milling Operation I	6
MCH 116	Milling Operation II	6
	Elective	4
Total Credit Hours Required for Graduation:		**36**

Welding and Joining Technology: Diploma

The Welding and Joining Technology Diploma program prepares students to work as welders. The program emphasizes a combination of welding and joining technology theory and practical applications necessary for successful employment using both manual and computerized welding and joining technology systems. Program graduates receive a diploma qualifying them as Welding and Joining Technicians.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Requirements for the Diploma (Minimum Program Length 4 Quarters):

General Core Curriculum		**Credit Hours: 11-13**
ENG 111	Business English	5
	OR	
ENG 101	English	5
	OR	
ENG 100	English	5
MAT 101	General Mathematics	5
	OR	
MAT 100	Basic Mathematics	3
EMP 100	Interpersonal Relations and Professional Development	3

Occupational Curriculum		**Credit Hours: 62**
SCT 100	Introduction to Microcomputers	3
WLD 100	Introduction to Welding Technology	6
WLD 101	Oxyfuel Cutting	4
WLD 103	Blueprint Reading I	3
WLD 104	Shielded Metal Arc Welding I	6
WLD 105	Shielded Metal Arc Welding II	6
WLD 106	Shielded Metal Arc Welding III	6
WLD 107	Shielded Metal Arc Welding IV	6
WLD 108	Blueprint Reading II	3
WLD 109	Gas Metal Arc Welding	6
WLD 110	Gas Tungsten Arc Welding	4
WLD 112	Preparation for Industrial Qualification	4
WLD 152	Pipe Welding	5
	OR	
WLD 160	Welding & Joining Half-Time Internship	5
	OR	
	Program Elective	5

Total Credit Hours Required for Graduation: **73-75**

Welding and Joining Technology: Certificates

There are three certificate programs offered in Welding and Joining Technology. The Gas Metal Arc Welding Certificate provides learning opportunities for individuals who need job-specific training in Gas Metal Arc Welding. The Gas Tungsten Arc Welding Certificate provides learning opportunities for individuals who need job-specific training in Gas Tungsten Arc Welding. The Shielded Metal Arc Welding Certificate provides learning opportunities for individuals who need job-specific training in Shielded Metal Arc Welding.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Gas Metal Arc Welding Certificate:

Occupational Curriculum		Credit Hours
WLD 100	Introduction to Welding Technology	6
WLD 101	Oxyfuel Cutting	4
WLD 109	Gas Metal Arc Welding	6
Total Credit Hours Required for Graduation:		**16**

Gas Tungsten Arc Welding Certificate:

Occupational Curriculum		Credit Hours
MAT 101	General Mathematics	5
WLD 100	Introduction to Welding Technology	6
WLD 103	Blueprint Reading I	3
WLD 108	Blueprint Reading II	3
WLD 110	Gas Tungsten Arc Welding	4
WLD 150	Advanced Gas Tungsten Arc Welding	5
Total Credit Hours Required for Graduation:		**26**

Shielded Metal Arc Welding Certificate:

Occupational Curriculum		Credit Hours
MAT 101	General Mathematics	5
WLD 100	Introduction to Welding Technology	6
WLD 103	Blueprint Reading I	3
WLD 104	Shielded Metal Arc Welding I	6
WLD 105	Shielded Metal Arc Welding II	6
WLD 106	Shielded Metal Arc Welding III	6
WLD 107	Shielded Metal Arc Welding IV	6
WLD 108	Blueprint Reading II	3
Total Credit Hours Required for Graduation:		**41**

COURSE DESCRIPTIONS

Course Descriptions

ACC 101 - Principles of Accounting I - Credit Hours: 6
Prerequisite: Program ready status in math and reading
Introduces the basic concepts of the complete accounting cycle and provides the student with the necessary skills to maintain a set of books for a sole proprietorship. Topics include: accounting vocabulary and concepts, the accounting cycle and accounting for a personal service business, the accounting cycle and accounting for a merchandising enterprise, and cash control. Laboratory work demonstrates theory presented in class. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

ACC 102 - Principles of Accounting II - Credit Hours: 6
Prerequisite: Grade of "C" or better in ACC 101
Applies the basic principles of accounting to specific account classifications and subsidiary record accounting. Topics include receivables, inventory, plant assets, payroll, payables, partnerships, and sales tax returns. Laboratory work demonstrates theory presented in class. *(Winter, Summer for Day Classes; Winter for Evening Classes)*

ACC 103 - Principles of Accounting III - Credit Hours: 6
Prerequisite: Grade of "C" or better in ACC 102
Emphasizes a fundamental understanding of corporate and cost accounting. Topics include accounting for a corporation, statement of cash flows, cost accounting, budgeting, and long term liabilities. Laboratory work demonstrates theory presented in class. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

ACC 104 - Computerized Accounting - Credit Hours: 3
Prerequisite: SCT 100, Corequisite: ACC 102
Emphasizes operation of computerized accounting systems from manual input forms. Topics include: equipment use, general ledger, accounts receivable and payable, payroll, cash management, and financial reports. Laboratory work includes theoretical and technical applications. *(Winter, Summer for Day Classes; Winter for Evening Classes)*

ACC 106 - Accounting Spreadsheet Fundamentals - Credit Hours: 3
Prerequisite: SCT 100
Provides instruction in the use of electronic spreadsheet software packages for program related spreadsheet applications. Students become proficient in creation, modification, and combination of spreadsheets. Topics include creation of spreadsheets; editing and deleting entries; introduction to macros; computations through the use of formula and/or logic functions; and program related spreadsheet applications. Laboratory work includes theoretical and technical applications. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

ACC 150 - Cost Accounting - Credit Hours: 6
Prerequisite: Grade of "C" or better in ACC 103
Emphasizes a thorough understanding of cost concepts, cost behavior, and cost accounting techniques as they are applied to manufacturing cost systems. Topics include job order cost accounting, process cost accounting, and standard cost accounting. *(Winter, Summer for Day Classes; Fall for Evening Classes)*

ACC 152 - Payroll Accounting - Credit Hours: 4
Prerequisite: ACC 101
Provides students with an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers, and analyzing and journalizing payroll transactions. *(Winter, Summer for Day Classes; Fall for Evening Classes)*

ACC 151 - Individual Tax Accounting - Credit Hours: 4
Prerequisite: ACC 101
Provides instruction for preparation of both state and federal income tax. Topics include taxable income, income adjustments, schedules, standard deductions, itemized deductions, exemptions, tax credits, and tax calculations. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

ACC 158 - Managerial Accounting - Credit Hours: 6
Prerequisite: Grade of "C" or better in ACC 103
Emphasizes the interpretation of data used by management in planning and controlling business activities. Topics include budgeting, capital investment decisions, price level and foreign exchange, analysis of financial statements, and internal reporting. *(Winter, Summer for Day Classes; Summer for Evening Classes)*

ACC 160 - Advanced Accounting Spreadsheet Applications - Credit Hours: 4
Prerequisite: ACC 106
Provides students with laboratory based theoretical and technical advanced spreadsheet applications. Emphasis is placed on developing an understanding of scope and application of advanced spreadsheet software. Topics include advanced computational functions, advanced data management functions, advanced file management, advanced data manipulation, advanced spreadsheet printing options, advanced spreadsheet macros, advanced spreadsheet command language, advanced graph generation, and advanced accounting and financial applications. *(Winter, Summer for Day Classes; Summer for Evening Classes)*

ACT 100 - Refrigeration Fundamentals - Credit Hours: 4
Introduces basic concepts and theories of refrigeration. Topics include the laws of thermodynamics, pressure and temperature relationships, heat transfer, the refrigeration cycle, and safety. *(Fall for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 101 - Principles and Practices of Refrigeration - Credit Hours: 7
Prerequisite/Corequisite: ACT 100
Introduces the use of refrigeration tools, materials, and procedures needed to install, repair, and service refrigeration systems. Topics include refrigeration tools, piping practices, service valves, leak testing, refrigerants, evacuation, charging, and safety. *(Fall for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 102 - Refrigeration Systems Components - Credit Hours: 7
Prerequisites/Corequisites: ACT 100, ACT 101
Provides the student with the skills and knowledge to install, test, and service major components of a refrigeration system. Topics include compressors, condensers, evaporators, metering devices, service procedures, refrigeration systems, and safety. *(Fall for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 103 - Electrical Fundamentals - Credit Hours: 5
Introduction to fundamental electrical concepts and theories as applied to the air conditioning industry. Topics include AC and DC theory, electric meters, electric diagrams, distribution systems, electrical panels, voltage circuits, code requirements, and safety. *(Winter for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 104 - Electric Motors - Credit Hours: 3
Prerequisite/Corequisite: ACT 103
Continues the development of skills and knowledge necessary for application and service of electric motors commonly used by the refrigeration and air conditioning industry. Topics include diagnostic techniques, capacitors, installation procedures, types of electric motors, electric motor service, and safety. *(Spring for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 105 - Electrical Components - Credit Hours: 5
Prerequisites/Corequisites: ACT 103, ACT 104
Provides instruction in identifying, installing, and testing commonly used electrical components in an air conditioning system. Topics include pressure switches, overload devices, transformers, magnetic starters, other commonly used controls, diagnostic techniques, installation procedures, and safety. *(Winter for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 106 - Electric Control Systems and Installation - Credit Hours: 4
Prerequisite/Corequisite: ACT 105
Provides instruction on wiring various types of air conditioning systems. Topics include servicing procedures, solid state controls, system wiring, control circuits, and safety. *(Winter for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT - 107 Air Conditioning Principles - Credit Hours: 8
Prerequisites/Corequisites: ACT 102, ACT 106, MAT 101, and program admission
Introduces fundamental theory and techniques needed to identify major components and functions of air conditioning systems. Instruction is given on types of air conditioning systems and use of instrumentation. Topics include types of AC systems, heat-load calculation, properties of air, psychometrics, duct design, air filtration, and safety principles. *(Summer for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 108 - Air Conditioning Systems and Installation - Credit Hours: 3
Prerequisite/Corequisite: ACT 107
Provides instruction on the installation and service of residential air conditioning systems. Topics include installation procedures, service, split-systems, add-on systems, packaged systems, and safety. *(Summer for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 109 - Troubleshooting Air Conditioning Systems - Credit Hours: 7
Prerequisites/Corequisites: ACT 108, ENG 111
Provides instruction on troubleshooting and repair of major components of a residential air conditioning system. Topics include troubleshooting techniques, electrical controls, air flow, refrigeration cycle, and safety. *(Summer for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 110 - Gas Heating Systems - Credit Hours: 5
Prerequisites: ACT 102, ACT 106, MAT 101
Introduces principles of combustion and service requirements for gas heating systems. Topics include service procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion, and safety. *(Fall for Day Classes; Alternating Quarters for Evening Classes based on student need)*

ACT 111 - Heat Pumps & Related Systems - Credit Hours: 6
Prerequisite/Corequisite: ACT 110
Provides instruction on installation and servicing of electric heating systems, heat pumps, and related systems. Topics include: installation procedures, servicing procedures, troubleshooting, valves, electrical components, safety, geothermal ground source energy supplies, and dual fuels. *(Spring for Day Classes; Alternating Quarters for Evening Classes based on student need)*

AHS 101 - Anatomy and Physiology - Credit Hours: 5
Focuses on basic normal structure and function of the human body. Topics include an overview of each body system, how systems coordinate activities to maintain a balanced state, recognizing deviations from the normal. Medical terminology, including basic word structure and terms related to body structure and function, are taught as an integral part of the course. *(Quarterly for Day Classes; Fall for Evening Classes)*

AHS 102 - Drug Calculation and Administration - Credit Hours: 3
Prerequisite: MAT 101
Utilizes basic mathematical concepts and includes basic drug administration. Topics include resource materials, systems of measurement, abbreviations, drug calculations, and administration of medications in a simulated clinical environment. *(Fall, Spring for Day Classes; Fall, Winter for Evening Classes)*

AHS 103 - Nutrition and Diet Therapy I - Credit Hours: 2
A study of the nutritional needs of the individual. Topics include basic nutrients, food sources, the role nutrition plays in the maintenance of health for the individual, social aspects of diet, patient assessment, and diet planning and preparation. *(Quarterly for Day Classes; Fall for Evening Classes; Fall, Spring for Internet Classes)*

AHS 104 - Introduction to Health Care - Credit Hours: 3
Introduces a grouping of fundamental principles, practices, and issues common to many specializations in the health care profession. Topics include: basic life support, CPR, basic emergency care/first aid, vital signs, infection control, and blood/airborne pathogens. *(Quarterly for Day Classes; Summer for Evening Classes)*

AHS 109 - Medical Terminology for Allied Health Sciences - Credit Hours: 3
Introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include origins, word building, abbreviations and symbols, terminology related to the human anatomy, reading medical orders and reports, and terminology specific to the student's field of study.

AHS 150 - Nutrition and Diet Therapy II - Credit Hours: 3
Corequisite: AHS 103
A continuation of the nutritional needs of the individual begun in AHS 103. Topics include nutrients, food sources, the role nutrition plays in the maintenance of health for the individual, diet therapy, and the use of appropriate diets to treat certain pathologic conditions. *(Fall, Spring for Day Classes; Fall for Evening Classes; Fall, Spring for Internet Classes)*

AMF 152 - Manufacturing Organizational Principles - Credit Hours: 2
Provides students with an overview of the functional and structural composition of manufacturing organizations. Topics include: manufacturing/consumer connection, manufacturing operational types, structure of manufacturing organizations, manufacturing business principles, and types of manufacturing processes. *(Quarterly for Day Classes)*

AMF 154 - Manufacturing Workforce Skills - Credit Hours: 2
Provides students with the knowledge and skills needed to succeed in the manufacturing environment. Topics include listening, working together, change management, stress management, decision making, and job interview skills to create a positive image. *(Quarterly for Day Classes)*

AMF 156 - Manufacturing Production Requirements - Credit Hours: 2
Provides students with the knowledge and skills associated with quality and productivity in the manufacturing environment. Topics include world class manufacturing, tools for excellence, and statistical process control. *(Quarterly for Day Classes)*

AMF 158 - Automated Manufacturing Skills - Credit Hours: 4
Provides students with an introduction into computerized process control and the operational requirements associated with automated machines in the manufacturing environment. Topics include basic mechanics, mechanical systems, hand tools, power tools, industrial controls, electrical safety, hydraulic systems, pneumatic systems, troubleshooting principles, and computers and automated principles. *(Quarterly for Day Classes)*

AMF 160 - Representative Manufacturing Skills - Credit Hours: 5
Provides students with an introduction to representative manufacturing skills and associated safety requirements. Topics include plant safety, material movement, equipment, precision measurements for manufacturing, and blueprint reading. *(Quarterly for Day Classes)*

BIO 193 - Anatomy and Physiology I - Credit Hours: 5
Prerequisite: Successful completion of all developmental courses.
Introduces students to the anatomy and physiology of the human body. Emphasis is placed on the development of a systemic perspective of anatomical structures and physiological processes. Topics include body organization, cell structure and function, tissue classifications, the integumentary system, the skeletal system, the muscular system, the nervous system, and the endocrine system. Laboratory experience supports classroom learning. Minimum grade of "C" required to advance to BIO 194, Anatomy and Physiology II. *(Spring for Day Classes Only)*

BIO 194 - Anatomy and Physiology II - Credit Hours: 5
Prerequisite: BIO 193 with a grade of "C" or better
Continues the study of the anatomy and physiology of the human body. Topics include the reproductive system and development, the cardiovascular and lymphatic systems, the digestive system, the respiratory system, the urinary system, the immune system, and metabolism. Laboratory experience supports classroom learning. *(Summer for Day Classes Only)*

BIO 197 - Medical Microbiology - Credit Hours: 5
Prerequisite: BIO 193 and 194 with a grade of "C" or better
This course is designed to provide the student with a foundation in basic microbiology with emphasis on infectious diseases. The student will gain an understanding of the various characteristics of microorganisms in general and the specific characteristics of pathogenic or disease-causing microorganisms. In addition, a study of the host-parasite relationship, the mechanism of host defense, epidemiology, and antimicrobial and chemotherapeutic agents will be conducted. Laboratory experience supports classroom learning.

BUS 101 - Beginning Document Processing - Credit Hours: 5
Prerequisite: Provisional Admission
Introduces the touch system of keyboarding placing emphasis on correct techniques, mastery of the keyboard, and basic business documents. Students attain a minimum typing speed of 25 words per minute with a maximum of 3 errors on a 3-minute timed keyboarding test. Topics include: learning the keyboard, building speed and accuracy, formatting basic business documents, language arts, and proofreading. Laboratory practice parallels class instruction. Minimum grade of "C" to advance to BUS 102. *(Quarterly for Day and Evening Classes; Fall, Spring for Internet Classes)*

BUS 102 - Intermediate Document Processing - Credit Hours: 5
Prerequisites: BUS 101, SCT 100
Continues the development of keyboarding speed and accuracy with further mastery of correct keyboarding techniques. Students attain a minimum keyboarding speed of 40 words per minute with a maximum of 5 errors on a 5-minute timed keyboarding test. Topics include: building speed and accuracy, formatting and producing business documents, language arts, and proofreading. Laboratory practice parallels class instruction. Minimum grade of "C" to advance to BUS 103. *(Quarterly for Day and Evening Classes; Winter, Summer for Internet Classes)*

BUS 103 - Advanced Document Processing - Credit Hours: 5
Prerequisites: BUS 102, ENG 111
Continues the development of keyboarding speed and accuracy with mastery of complex document production. Students attain a minimum keyboarding speed of 50 words per minute with a maximum of 5 errors on a 5-minute timed keyboarding test. Topics include: building speed and accuracy, integrated projects/applications, language arts, and proofreading. Laboratory practice parallels class instruction. *(Quarterly for Day and Evening Classes)*

BUS 105 - Database Fundamentals - Credit Hours: 3
Prerequisites: Program admission, SCT 100
Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: data entry, data access, data manipulation, database creation, and file documentation.

BUS 106 - Office Procedures - Credit Hours: 5
Prerequisites: BUS 101, SCT 100
Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, office mail, references, records management, and travel and meeting arrangements. *(Fall, Winter, Spring for Day Classes; Spring for Evening Classes; Summer, Winter for Internet Classes)*

BUS 107 - Machine Transcription - Credit Hours: 3
Prerequisites: BUS 102, SCT 100, ENG 111
Emphasizes transcribing mailable documents from recordings using a word processor. Topics include proper maintenance and usage of equipment and supplies, work area management, transcription techniques, proper formats, speed and accuracy, proofreading, grammar, spelling, and punctuation. *(Quarterly for Day Classes; Fall and Spring for Evening Classes)*

BUS 108 - Word Processing - Credit Hours: 7
Prerequisites: BUS 101, and/or SCT 100
Emphasizes an intensive use of word processing software to create and revise business documents. Topics include: equipment and supplies maintenance and usage, work area management, word processing software, and proofreading. *(Quarterly for Day Classes; Winter, Summer for Evening Classes; Fall, Spring for Internet Classes)*

BUS 109 - Applied Office Procedures - Credit Hours: 3
Prerequisites: BUS 102, BUS 108
Applied Office Procedures serves as a capstone course which provides students with the opportunity to apply skills acquired in other coursework. Topics include application of word/information processing skills, communication skills, telecommunication skills, and records management skills, public relation skills, use of office equipment, and office equipment/supplies procurement. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

BUS 151 - Introduction to Business - Credit Hours: 5
Introduces organization and management concepts of the business world. Topics include business organization, enterprise management, marketing management, and financial management. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

BUS 158 - Legal Terminology - Credit Hours: 3
Prerequisite: Provisional Admission
Introduces the elements of legal terminology. Emphasis is placed on a building familiarity with legal words that apply to the court system, contracts, family law, real estate, litigation, wills/probate, bankruptcy, and general legal terms. *(Fall, Spring for Day Classes)*

BUS 161 - Desktop Publishing I - Credit Hours: 5
Prerequisites: BUS 101, SCT 100
Emphasizes intensive use of desktop publishing software to create publications such as letterheads, resumes, fliers, brochures, reports, newsletters, and business cards. Topics include desktop publishing concepts, operation of DTP software, electronics page layout, basic graphic design, and practical applications. *(Winter, Summer for Day Classes; Fall, Spring for Evening Classes)*

BUS 162 - Desktop Publishing II - Credit Hours: 5
Prerequisites: BUS 101, BUS 161, SCT 100
Emphasizes intensive use of desktop publishing software to create advanced publications such as advertisements, proposals, manuals, catalogues, and newspapers. Topics include: advanced layout and design, style sheets and templates, advanced graphic design, printing capabilities, and practical applications. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

BUS 201 - Advanced Word Processing - Credit Hours: 3
Prerequisites: BUS 108 with a minimum grade of "C", ENG 111
Provides instruction in advanced word processing. Topics include: advanced word processing concepts and applications, and proofreading. *(Quarterly for Day Classes; Spring for Evening Classes; Winter, Summer for Internet Classes)*

BUS 202 - Spreadsheet Fundamentals - Credit Hours: 3
Prerequisites: Program admission, MAT 111, SCT 100
Provides instruction in the use of electronic spreadsheet software in business applications. Students become proficient in creating and modifying spreadsheets in a business environment and in printing files that meet business standards. Topics include: spreadsheet creation, data entry, entry modification, computation using functions, charts and graphs, and printing.

BUS 204 - Half-Time Business Office Specialist Internship - Credit Hours: 6
Prerequisite: Must be in last quarter of program. Students may take last quarter course work and internship concurrently with permission of the Department Head.
Provides the student work experience in a professional environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business and Office Technology program faculty and/or persons designated to coordinate work experience arrangements. *(Quarterly for Day and Evening Classes)*

BUS 205 - Half-Time Medical Office Specialist Internship - Credit Hours: 6
Prerequisite: Must be in last quarter of program. Students may take last quarter course work and internship concurrently with permission of the Department Head.
Provides the student work experience in a medical environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business and Office technology program faculty and/or persons designated to coordinate work experience arrangements. *(Quarterly for Day and Evening Classes)*

BUS 206 - Half-Time Legal Office Specialist Internship - Credit Hours: 6
Prerequisite: Must be in last quarter of program. Students may take last quarter course work and internship concurrently with permission of the Department Head.
Provides the student work experience in a legal environment. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business and Office technology program faculty and/or persons designated to coordinate work experience arrangements. *(Quarterly for Day and Evening Classes)*

BUS 208 - Office Accounting - Credit Hours: 5
Prerequisite: MAT 111
Introduces fundamental concepts of accounting. Topics include: accounting equation, debits, credits, journalizing, posting and providing ledger, accounts receivable, accounts payable, and payroll. Both manual and computerized concepts are taught. *(Winter, Summer for Day Classes; Fall, Spring for Evening Classes)*

BUS 211 - Medical Terminology - Credit Hours: 4
Introduces the basic spelling and pronunciation of medical terms and the use of these terms as they relate to anatomy, treatment, surgery, and drugs. Topics include medical prefixes, roots, suffixes, word elements, spelling, pronunciation, and meaning. *(Winter, Summer for Day Class; Fall for Evening Classes, Quarterly for Internet Classes)*

BUS 212 - Anatomy and Terminology - Credit Hours: 5
Prerequisite: BUS 211
Introduces the structures and functions of the human body including medical terminology. Topics include spelling; pronunciation; medical terminology; definitions and anatomical terms; and location, identification, and functions of body parts and systems. *(Quarterly for Day, Evening, and Internet Classes)*

BUS 213 - Medical Document Processing/Transcription - Credit Hours: 5
Prerequisites: BUS 212, BUS 211, ENG 111
Provides experience in medical transcription working with the most frequently used medical reports. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, and pronunciation. *(Quarterly for Day Classes; Summer, Winter for Evening Classes; Fall, Spring for Internet Classes)*

BUS 215 - Medical Office Specialist Internship - Credit Hours: 12
Prerequisites: Successful completion of all required coursework
Provides student work experience in an off-campus medical environment. Topics include applying classroom knowledge and skills, working cooperatively with co-workers and management, and listening and following directions. Students will be under the supervision of the Business and Office Technology program faculty and/or persons designated to coordinate work experience arrangements. *(Quarterly for Day and Evening Classes)*

BUS 216 - Medical Office Procedures - Credit Hours: 5
Prerequisites: BUS 102, 212
Emphasizes essential skills required for the medical office. Topics include medical law and ethics, patient relations, scheduling appointments, medical records management, pegboard accounting, health insurance, and billing/collection. *(Fall, Spring for Day Classes; Spring for Evening Classes; Winter, Summer for Internet Classes)*

BUS 217 - Legal Procedures I - Credit Hours: 7
Prerequisites: BUS 102, ENG 111, BUS 158, BUS 227
Introduces office procedures practiced by the legal secretary. Topics include: preparation of legal documents and correspondence, ethics, and legal office procedures. Specific topics covered include: legal office duties, the courts and documents, litigation, criminals, wills, probate, real estate, corporations, family law, and non-court documents. Minimum grade of "C" required to advance to BUS 218. *(Winter for Day Classes)*

BUS 218 - Legal Procedures II - Credit Hours: 7
Prerequisite: ENG 112, BUS 217 with a minimum grade of "C"
Continues office procedures practiced by the legal secretary. Topics include: preparation of legal documents and correspondence, ethics, and legal office procedures. Specific topics covered include: legal office duties, the courts and court documents, litigation, criminals, wills, probate, real estate, corporations, family law, and non-court documents. *(Spring for Day Classes)*

BUS 219 - Legal Office Specialist Internship - Credit Hours: 12
Prerequisite: Successful completion of all required coursework
Provides students work experience in an off-campus legal environment. Topics include applying classroom knowledge and skills, working cooperatively with co-workers and management, and listening and following directions. Students will be under the supervision of the Business and Office Technology program faculty and/or persons designated to coordinate work experience arrangements. *(Quarterly for Day Class)*

BUS 224 - Business Office Specialist Internship - Credit Hours: 12
Provides students work experience in an off-campus office environment. Topics include applying classroom knowledge and skills, working cooperatively with co-workers and management, listening and following directions. Students will be under the supervision of the Business and Office Technology program faculty and/or persons designated to coordinate work experience arrangements *(Quarterly for Day and Evening Classes)*

BUS 225 - Office Simulation - Credit Hours: 8
Prerequisite: Successful completion of all course work in a Business and Office Technology specialization area.
Provides realistic patterns of office activities in a simulated office environment. Topics include integrating, developing, and applying a wide range of occupational knowledge and skills; cooperatively interacting with co-workers; and listening and following directions. *(Quarterly for Day and Evening Classes)*

BUS 226 - Medical Office Billing/Coding/Insurance - Credit Hours: 5
Prerequisites: BUS 212, BUS 211, BUS 101, ENG 111
Provides an introduction to medical coding skills and application of international coding standards for billing of health care services. Provides the knowledge and skills to apply coding of procedures for billing purposes. Provides an introduction to medical coding as it relates to health insurance. Topics include: international classification of diseases, code book formats, guidelines and conventions, coding techniques, formats of the ICD-9 and CPT manuals, health insurance, billing, and collections. *(Fall, Spring for Day Classes; Winter, Summer for Evening Classes)*

BUS 227 - Legal Document Processing/Transcription - Credit Hours: 3
Prerequisites: BUS 102, ENG 112, BUS 108, BUS 217
Provides experience in legal transcription working with the most frequently used legal reports. Topics include: equipment and supplies maintenance and usage, work station management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, and pronunciation. *(Fall, Spring for Day Classes)*

CIS 103 - Operating Systems Concepts - Credit Hours: 6
Prerequisite/Corequisite: SCT 100
Provides an overview of operating system functions and commands that are necessary in a computer working environment. Topics include multiprogramming, single and multi-user systems, resource management, command languages, operating system utilities, file system utilization, and multiple operating systems. *(Every Quarter for Day Classes; Fall, Spring for Evening Classes)*

CIS 105 - Program Design and Development - Credit Hours: 5
Prerequisite/Corequisite: CIS 106
Provides an emphasis on business problem identification and solution through systems of computer programs using such tools as structure charts, flowcharts, and pseudocode. Topics include the problem solving process, fundamentals of structured programming, program development building blocks, fundamentals of file and report structure, and business application structure. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

CIS 106 - Computer Concepts - Credit Hours: 5
Prerequisite/Corequisite: SCT 100
Provides an overview of computers and information processing. Topics include computer history and terminology, data representation, data storage concepts, fundamentals of information processing, fundamentals of hardware operation, fundamentals of communications and networking, structured programming concepts, program development methodology, system development methodology, and computer number systems. *(Fall, Spring for Day Classes; Summer for Evening Classes; Spring for Internet Classes)*

CIS 112 - Systems Analysis and Design - Credit Hours: 6
Prerequisites: CIS 105, Programming Language Preferred
Provides a review and application of systems life cycle development methodologies implemented by project teams. Topics include role of systems analysis and design, preliminary investigation, systems analysis phase, systems design phase, systems development phase, implementation and evaluation, and post-implementation systems operation. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

CIS 113 - COBOL I - Credit Hours: 7
Prerequisite/Corequisite: CIS 105
Provides a study of the COBOL programming language to solve business applications. Topics include divisions, input/output operations, arithmetic operations, sequence verbs, conditional control, editing input, and single level control breaks. *(Spring for Evening Classes)*

CIS 122 - Microcomputer Installation and Maintenance - Credit Hours: 7
Prerequisites: SCT 100, CIS 103
Provides an introduction to the fundamentals of installing and maintaining microcomputers. Topics include identifying components and their functions, safety, installation procedures, troubleshooting techniques, and preventive maintenance. *(Fall, Spring for Day Classes; Summer, Winter for Evening Classes)*

CIS 124 - Microcomputer Database Programming - Credit Hours: 7
Prerequisites/Corequisites: CIS 105, CIS 2229
Provides a study of database programming using microcomputer database management systems (DBMS) software packages. Topics include development of systems, structured programming techniques, data editing, and output design. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

CIS 127 - Word Processing and Desktop Publishing Techniques - Credit Hours: 6
Prerequisite: SCT 100
Provides a study of word processing and desktop publishing. Topics include word processing fundamentals, desktop publishing fundamentals, advanced word processing concepts, development of macros, and presentation graphics fundamentals. *(Fall, Spring for Day Classes; Winter for Evening Classes; Fall, Spring for Internet Classes)*

CIS 146 - Microsoft NT Administration - Credit Hours: 7
Prerequisite: CIS 1140
Provides a study of Microsoft NT administration. Topics include: NT file system, NT integrity and security, NT system and user account automation, NT domains, NT trust relationships, NT directory replication, NT systems optimization, NT clients, NT printing, NT communications, and network software installation. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

CIS 149 - Advanced C++ Programming - Credit Hours: 7
Prerequisite: CIS 105
Introduces object oriented programming. Common elements of Windows applications will be discussed and created using a C+ + integrated development environment. Topics include object oriented programming, Windows applications, user interface design, capturing and validating input, event-driven programming design, conditional processing, and incorporating graphics. *(Winter, Summer for Day Classes)*

CIS 155 - Working With Microsoft Windows Software - Credit Hours: 3
Prerequisite: SCT 100
Provides the interface concepts of Microsoft Windows software and the opportunity to develop software application skill in a wide range of business situations. Topics include getting started with Microsoft Windows, managing programs and files with Microsoft Windows, using Microsoft Windows "write" and "paintbrush" features, data transfer with Microsoft Windows, printing with Microsoft Windows, and customizing with Microsoft Windows. *(Winter, Summer for Day Classes; Spring for Evening Classes; Fall, Spring for Internet Classes)*

CIS 157 - Introduction to Windows Programming Using Microsoft Visual Basic- Credit Hours: 7
Corequisite: CIS 105 Recommended
Introduces Microsoft Windows event-driven programming. Along with the new method of programming, common elements of Windows applications will be discussed. These elements will be created and manipulated using Microsoft's Visual BASIC development environment. Topics include Windows applications, user interface design, capturing and validating input, event-driven programming design, conditional processing, file processing, and incorporating graphics. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

CIS 214 - Database Management - Credit Hours: 6
Prerequisite: Programming Language Course
Provides an overview of the skills and knowledge of database application systems used in business, government, and industry. Topics include models, structures, physical database, logical database, and accessing techniques. *(Winter, Summer for Day Classes; Spring for Evening Classes)*

CIS 221 - Advanced Microsoft Word - Credit Hours: 3
Prerequisite: CIS 127
Provides the fundamental, intermediate, and advanced Microsoft Word competencies to provide the user with the skills necessary to obtain the expert user certification. Topics include workgroup editing, and advanced features such as macros, mail merge, HTML creation, and tables. *(Winter, Summer for Day Classes; Fall for Evening Classes; Winter for Internet Classes)*

CIS 222 - Advanced Microsoft Excel - Credit Hours: 3
Prerequisite: CIS 2228
Provides the fundamental, intermediate, and advanced Microsoft Excel competencies to provide the user with the skills necessary to obtain the expert user certification. Topics include spreadsheet creation, financial statements, forecast, amortization schedules, workgroup editing ,and advanced features such as macros, using charts, importing and exporting data, HTML creation, formulas, WEB queries, built-in functionality, templates, and trends and relationships. *(Fall and Spring for Day Classes; Winter for Evening Classes; Fall for Internet Classes)*

CIS 223 - Advanced Microsoft Access - Credit Hours: 3
Prerequisite: CIS 2229
Provides the fundamental, intermediate, and advanced Microsoft Access competencies to provide the user with the skills necessary to obtain the expert user certification. Topics include creating and modifying a database, locating information, macro and module creation and advanced features such as advanced queries, forms, advanced reports, subform creation, HTML creation, data integrity, and integration with other applications. *(Fall and Spring for Day Classes; Summer for Evening Classes; Summer for Internet Classes)*

CIS 224 - Advanced Microsoft PowerPoint - Credit Hours: 3
Prerequisite: CIS 127
Provides the fundamental, intermediate, and advanced Microsoft PowerPoint competencies to provide the user with the skills necessary to obtain expert user certification. Topics include presentation creation, presentation views, slide shows, templates, animation, HTML creation, navigation, and presentation transition. *(Summer and Winter for Day Classes; Spring for Evening Classes; Winter for Internet Classes)*

CIS 250 - Introduction to RPG Programming - Credit Hours: 7
Prerequisite/Corequisite: CIS 105
Introduces programming business applications using the RPG programming language. Topics include introduction to RPG programming, input and output processing, arithmetic operations, edit codes/words, selection operations, control breaks, multiple control breaks, do loops, exception output, external files-physical and logical, and sequential file access methods. *(Winter, Summer for Day Classes; Summer for Evening Classes)*

CIS 251 - Advanced RPG Programming - Credit Hours: 7
Prerequisite: CIS 250 with a minimum grade of "C" or better
Provides an emphasis on designing and writing programs using the RPG programming language. Topics include table and array processing, data validation, data structures, interprogram communication, random file access methods, file updating, and interactive processing. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

CIS 252 - Introduction to JAVA Programming - Credit Hours: 7
This course is designed to teach the basic concepts and methods of objected-oriented design and Java programming, and use practical problems to illustrate Java application building techniques and concepts. Develop an understanding of Java vocabulary. Create an understanding of where Java fits in the application development landscape. Create an understanding of the Java Development Kit and how to develop, debug, and run Java applications using the JDK and Notepad as an editor. Continue to develop student's programming logic skills. Topics include: JAVA Language History, JAVA Variable Definitions, JAVA Control Structures, JAVA Methods, JAVA Classes, JAVA Objects, and JAVA Graphics. *(Quarterly for Day Classes)*

CIS 276 - Advanced Routers and Switches - Credit Hours: 6
Prerequisites: CIS 2321, CIS 2322
Provides a review and advance topics of data communications and networks. Topics include LAN Switching, VLANs and LAN Design, IGRIP, Access Lists, and IPX. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

CIS 277 - WAN Design - Credit Hours: 6
Prerequisites: CIS 2321, CIS 2322, CIS 276
Provides an introduction to WAN design. Topics include WANs and WAN Design, PPP, ISDN, Frame Relay, and review for CCNA Exams. *(Winter, Summer for Day Classes; Spring for Evening Classes)*

CIS 1140 - Networking Fundamentals - Credit Hours: 6
Prerequisites: SCT 100 and CIS 106 or advisor approval
Introduces networking technologies and prepares students to take CompTIA's broad-based, vendor-independent networking certification exam, Network+. Covers a wide range of material about networking, from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems, and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity, and network maintenance and troubleshooting.

CIS 2149 - Implementing Microsoft Windows Professional - Credit Hours: 6
Prerequisites: CIS 103, CIS 1140 or Advisor Approval
Provides the ability to implement, administer, and troubleshoot Windows Professional as a desktop operating system in a network environment. *(Contact advisor for scheduling.)*

CIS 2150 - Implementing Microsoft Windows Server - Credit Hours: 6
Prerequisite: CIS 2149
Provides the ability to implement, administer, and troubleshoot Windows Server as a member server of a domain in an Active Directory environment. *(Contact advisor for scheduling.)*

CIS 2153 - Implementing Microsoft Windows Networking Infrastructure - Credit Hours: 6
Prerequisite: CIS 2150
Provides students with the knowledge and skills necessary for new-to-product support professionals who will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows server family of products. *(Contact advisor for scheduling.)*

CIS 2154 - Implementing Microsoft Windows Networking Directory Services - Credit Hours: 6

Prerequisite: CIS 2150

Provides students with the knowledge and skills necessary to install, configure, and administer the Microsoft Windows Active Directory service. The course also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. *(Contact advisor for scheduling.)*

CIS 2158 Designing a Microsoft Windows Networking Services Infrastructure - Credit Hours: 7

Prerequisite/Corequisite: Supporting a Network Infrastructure Using Microsoft Windows 2000

This course is intended to teach the skills required to analyze the business requirements for a network infrastructure and design a network infrastructure that meets business requirements. Network infrastructure elements include: Network topology, Routing, IP addressing, Name resolution such as WINS and DNS, Virtual private networks, Remote access, and Telephony solutions. It is also designed to help a student prepare for the corresponding Microsoft Certified Professional examination. *(Contact advisor for scheduling.)*

CIS 2191 - Internet Business Fundamentals - Credit Hours: 5

Prerequisite: Program admission

Internet Business Fundamentals teaches students how to access the Internet and the World Wide Web using a Web Browser as a general-purpose Internet application. Students will learn to use the Internet for e-mail, the World Wide Web, newsgroups, Gopher, Veronica, File Transfer Protocol (FTP) and Telnet. Student will gain experience using and configuring both Netscape Navigator and Microsoft Internet Explorer to access rich multimedia data and objects as well as Java, Shockwave, and Active X content. A variety of Web-based search engines will be used to conduct advanced searches and learn the basics of project leadership, security, and e-business solutions. Students will also learn about business on the Internet, and how business research can help gain market intelligence. *(Winter, Summer for Day Classes; Fall for Evening Classes)*

CIS 2201 - HTML Fundamentals - Credit Hours: 3

Prerequisite: SCT 100

HTML Fundamentals is designed to teach basic through intermediate concepts in Hypertext Markup Language (HTML) authoring, including forms, complex table design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, design, graphic elements, and client-side image maps. Students will design inter-linking pages that incorporate, in practical applications, a wide range of HTML tags and attributes. *(Winter, Summer for Day Classes; Summer for Evening Classes)*

CIS 2211 - Web Site Design Tools - Credit Hours: 6

Prerequisite: CIS 2201

Web Site Design Tools teaches an understanding of how to create and manage impressives using the sizeable amounts of new technology available on the Web. Students will learn to create web sites using various web tools such as FrontPage, NetObjects Fusion, Dynamic HTML, and various multimedia and CSS standards. *(Winter, Summer for Day Classes; Spring for Evening Classes)*

CIS 2221 - Web Graphics and Multimedia - Credit Hours: 6
Prerequisite: CIS 2201
Web Graphics and Multimedia teaches the use of powerful tools for modeling scanned images and illustrations into creative artwork. In this course, students will learn techniques for quickly creating attractive textures for backgrounds, compositing images seamlessly, simulating surface reflections and shadows, and creating effects with type. Advanced tools will be used for selecting parts of images, moving, duplicating, and resizing images. Students will utilize painting tools to manipulate images, and will perform adjustments to contrast and color balance. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

CIS 2228 - Spreadsheets Techniques - Credit Hours: 6
Prerequisite: SCT 100
Provides a study of spreadsheets. Topics include: advanced spreadsheet concepts, development of macros, data integration concepts, troubleshooting spreadsheets. *(Fall, Spring for Day Classes; Winter, Summer for Evening Classes; Winter, Summer for Online Classes)*

CIS 2229 - Database Techniques - Credit Hours: 6
Prerequisite: SCT 100
Provides a study of databases. Topics include: advanced database management concepts, development of macros, data integration concepts, development of user interfaces, relational database concepts, troubleshooting databases. *(Winter, Summer for Day Classes; Fall, Spring for Evening Classes; Fall for Online Classes)*

CIS 2231 - Design Methodology - Credit Hours: 6
Prerequisite: CIS 2201
Design Methodology teaches students how to create and mange Web sites using FrontPage, NetObjects Fusion Dynamic HTML, and various multimedia and CSS standards. Students will also implement the latest strategies to develop third generation Web sites, evaluate design tools, discuss future technology standards, and explore the incompatibility issues surrounding current browsers. The course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, and scenario development and performance evaluations. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

CIS 2261 - JavaScript Fundamentals - Credit Hours: 4
Prerequisites: CIS 105, CIS 2201
JavaScript Fundamentals teaches developers how to use the JavaScript language and how to incorporate scripts into their web pages to make them interactive, to validate data, and add animation to the web page. JavaScript is supported by all popular browsers. Security considerations are discussed throughout the course. *(Winter, Summer for Day Classes; Summer for Evening Classes)*

CIS 2271 - Fundamentals of CGI using Perl - Credit Hours: 4
Prerequisite: CIS 2201
Fundamentals of CGI Programming using PERL and Server-Side Scripting teach students how to use Common Gateway Interface (CGI) PERL programs and scripts on a Web server. Students will learn how to writer print-to-screen scripts, customize Web page hit counters, create and use business forms that interface with text files, manipulate data in a database, work with a relations database via Open Database Connectivity ODBC), and explore Web server security issues related to CGI. A survey of other products such as Microsoft Active Server Pages, Netscape LiveWire, and Cold Fusion by Allaire will be

discussed. Security issues using server-side scripting will also be studied, and students will learn how to add security elements to their scripts. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

CIS 2281 - Database Connectivity - Credit Hours: 7
Prerequisite: CIS 2191
Database Connectivity teaches students how to manipulate data in a database, work with relational database via Open Database Connectivity (ODBC) and learn how to work with different database systems. Students will learn to install and configure Cold Fusion, or equivalent software, and use the system to develop forms and applications to interact with file systems, e-mail and database servers. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

CIS 2321 - Introduction to LAN and WAN - Credit Hours: 6
Prerequisite: SCT 100
Provides students with classroom and laboratory experience in current and emerging network technology. Topics include safety, networking, network terminology and protocols, network standards, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building and environmental codes and regulations. *(Spring, Fall for Day Classes; Summer for Evening Classes)*

CIS 2322 - Introduction to WANs and Routing - Credit Hours: 6
Prerequisite: CIS 2321
This course provides instruction on performing basic router configuration and troubleshooting. *(Summer, Winter for Day Classes; Fall for Evening Classes)*

CIS 2421 - Intermediate Java Programming - Credit Hours: 7
Prerequisite: CIS 252
Programmers familiar with object-oriented concepts will learn how to develop Java applications. This course is used to teach students the syntax of the Java programming language and object-oriented programming with the Java programming language. The course uses the Java 2 Software Development Kit. *(Fall, Spring for Day Classes)*

CIS 2431 - Advanced Java Programming - Credit Hours: 7
Prerequisite: CIS 2421
Advanced Java progress into advanced JAVA programming techniques and program development. Server side programming and client side programs are integrated. Students also learn debugging techniques and security. *(Winter, Summer for Day Classes)*

COL 099 - College Life - Institutional Credit Hours: 3
Introduces students to the skills required in order to be a successful student. Some of the topics covered are time management, taking effective notes, how to prepare for tests and reading textbooks, among others. Students are also oriented to the institution, its processes, and available services.

COS 100 - Introduction to Cosmetology Theory - Credit Hours: 5
Introduces the fundamental theory and practices of the cosmetology profession. Emphasis will be placed on professional practices and safety. Topics include state and local laws, rules, and regulations; hygiene and grooming; personality development and professional ethics; sterilization, sanitation, and bacteriology; chemistry fundamentals, safety; anatomy and physiology; and Hazardous Duty Standards Act compliance. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 101 - Introduction to Permanent Waving and Relaxing - Credit Hours: 2
Prerequisite/Corequisite: COS 100
Introduces the chemistry and chemical reactions of permanent wave solutions and relaxers. Topics include permanent wave techniques, safety procedures, chemical relaxer techniques, and permanent wave and chemical relaxer application procedures on mannequins. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 103 - Introduction to Skin, Scalp, and Hair - Credit Hours: 2
Prerequisite: COS 100
Introduces the theory, procedures, and products used in the care and treatment of the skin, scalp, and hair. Topics include treatment theory, basic corrective hair and scalp treatments, plain facials, products and supplies, and diseases and disorders. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 105 - Introduction to Shampooing and Styling - Credit Hours: 4
Prerequisite: COS 100
Introduces the fundamental theory and skills required to shampoo and create shapings, pincurls, fingerwaves, roller placement, and combouts. Laboratory training includes Styling training to total 20 hours on mannequins and 25 hours on live models without compensation. Topics include shampoo chemistry, shampoo procedures, styling principles, pincurls, roller placement, fingerwaves, combout techniques, skipwaves, ridgecurls and safety precautions. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 106 - Introduction to Hair Cutting - Credit Hours: 3
Prerequisite/Corequisite: COS 100
Introduces the theory and skills necessary to apply haircutting techniques. Safe use of haircutting implements will be stressed. Topics include haircutting terminology, safety and sanitation, cuffing implements, and haircutting techniques. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 108 - Permanent Waving and Relaxing - Credit Hours: 3
Prerequisite: COS 101
Presents precautions and difficulties involved in applying permanent waves and relaxers. Application of permanent waves and relaxers on live models is included. Topics include timed permanent wave, timed relaxer application, safety precautions, and Hazardous Duty Standards Act compliance. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 109 - Hair Color - Credit Hours: 6
Prerequisite: COS 102
Presents the application of temporary, semi-permanent and permanent hair coloring products. Topics include lash and brow tints, coloring products, safety precautions and tests, mixing procedures, and color selection and application. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 110 - Skin, Scalp, and Hair - Credit Hours: 3
Prerequisite: COS 103
Provides instruction on and application of techniques and theory in the treatment of the skin, scalp, and hair. Emphasis will be placed on work with live models. Topics include implements, products and supplies, diseases and disorders, corrective hair and scalp treatments, facial procedures and manipulations, and safety precautions. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 111 - Styling - Credit Hours: 3
Prerequisite: COS 105
Continues the theory and application of hairstyling and introduces thermal techniques. Topics include blow dry styling, thermal curling, thermal pressing, thermal waving, braiding, safety, and cleaning and styling wigs and hairpieces. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 112 - Manicuring and Pedicuring - Credit Hours: 3
Prerequisite: COS 100
Provides manicuring and pedicuring experience on live models. Topics include implements, products and supplies, diseases and disorders, manicure techniques, and plain pedicure. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 113 - Practicum I - Credit Hours: 4
Prerequisites: COS 107, COS 108, COS 109, COS 110, COS 111, COS 112
Prerequisites/Corequisites: ENG 111, MAT 101, PSY 100
Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair; haircutting; styling; dispensary; manicure/pedicure; reception; safety precautions; and Hazardous Duty Standards Act compliance. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 114 - Practicum II - Credit Hours: 8
Prerequisite/Corequisite: COS 113
Provides laboratory experiences necessary for the development of skill levels required to be a competent cosmetologist. The allocation of time to the various phases of cosmetology is prescribed by the Georgia State Board of Cosmetology. This course includes a portion of the hours required for licensure. Topics include permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair; haircutting; styling; dispensary; manicure/pedicure; reception; safety precautions; and Hazardous Duty Standards Act compliance. *(Fall, Spring for Day Classes; Quarterly for Evening Classes)*

COS 115 - Practicum/Internship I - Credit Hours: 4
Prerequisites: COS 113, COS 114
Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. Topics include permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair haircutting; styling; dispensary; manicure/pedicure; reception; safety precautions; and Hazardous Duty Standards Act compliance. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 116 - Practicum/Internship II - Credit Hours: 5
Prerequisites: COS 113, COS 114, COS 115
Provides experience necessary for professional development and completion of requirements for state licensure. Emphasis will be placed on the display of professional conduct and positive attitudes. The requirements for this course may be met in a laboratory setting or in a combination of a laboratory setting and an approved internship facility. Topics include permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair; haircutting; styling; dispensary; manicure/pedicure; reception; safety precautions; Hazardous Duty Standards Act compliance; and state licensure preparation. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 117 - Salon/Shop Management - Credit Hours: 4
Prerequisites: COS 100, Program admission
Emphasizes the steps involved in opening and operating a privately owned cosmetology salon. Topics include planning a salon/shop, business management, retailing, public relations, sales skills, and client retention. *(Winter, Summer for Day Classes; Quarterly for Evening Classes)*

COS 118 - Nail Care I - Credit Hours: 7
Provides additional experience in manicuring and pedicuring techniques required of applicants for state licensure. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, nail repair, artificial nails, pedicure, and advanced and new techniques. *(Quarterly for Day and Evening Classes)*

COS 119 - Nail Care II - Credit Hours: 6
Provides nail care experience on live models. Emphasis will be placed on the display of professional conduct and positive attitudes and the appropriate number of applications required by the state board of cosmetology in theory and service credit requirements for this course. Emphasis is placed on performance, using live models in an actual or simulated occupational setting. Topics include: manicure, dispensary, and advanced techniques. *(Quarterly for Day and Evening Classes)*

CRJ 101 - Introduction to Criminal Justice Technology - Credit Hours: 5
Prerequisite: Provisional admission
Examines the emergence, progress, and problems of the Criminal Justice system in the United States. Topics include: the American Criminal Justice system; constitutional limitations; organization of enforcement, adjudication, and corrections; and career opportunities and requirements.

CRJ 103 - Corrections - Credit Hours: 5
Prerequisite: Provisional admission
Provides an overview of all phases of the American correctional system and practices, including its history, procedures, and objectives. Topics include: history and evolution of correctional facilities; legal and administrative problems; institutional facilities and procedures; probation, parole, and prerelease programs; alternative sentencing; rehabilitation; community involvement; and staffing.

CRJ 104 - Principles of Law Enforcement - Credit Hours: 5
Prerequisite: Provisional admission
Examines the principles of organization and administration and the duties of local and state law enforcement agencies with emphasis on police departments. Topics include: history and philosophy of law enforcement, evaluation of administrative practices, problems in American law enforcement agencies, emerging concepts, professionalism, and community crime prevention programs.

CRJ 105 - Criminal Procedure - Credit Hours: 5
Prerequisite: CRJ 101
Introduces the substantive law of major crimes against persons and property. Attention is given to observation of courtroom trials. Topics include: laws of arrest and search and seizure; procedures governing arrest, trial, and administration of criminal sanctions; rules of evidence; general court procedures; rights and duties of officers and citizens; and Supreme Court rulings that apply to Criminal Justice/overview of Constitutional Law.

CRJ 202 - Constitutional Law - Credit Hours: 5
Prerequisite: CRJ 101
Emphasizes those provisions of the Bill of Rights pertaining to Criminal Justice Technology. Topics include: characteristics and powers of the three branches of government, principles governing the operation of the Constitution, the Bill of Rights, and the Constitutional Amendments.

CRJ 206 - Criminology - Credit Hours: 5
Prerequisite: CRJ 104
Introduces the nature, extent, and factors related to criminal behavior, and the etiology of criminal offenses and offenders. Topics include: scope and varieties of crime; sociological, psychological, and biological causes of crime; criminal subculture and society's reaction; prevention of criminal behavior; behavior of criminals in penal and correctional institutions; and problems of rehabilitating the convicted criminal.

CRJ 207 - Juvenile Justice - Credit Hours: 5
Prerequisite: CRJ 101
Analyzes the nature, extent, and causes of juvenile delinquency, and examines the processes in the field of juvenile justice. Topics include: survey of juvenile law, comparative analysis of adult and juvenile justice systems, and prevention and treatment of juvenile delinquency.

CRJ 209 - Criminal Justice Practicum/Internship - Credit Hours: 5
Prerequisite: Completion of all required courses
Provides experiences for further professional development and exposure to related agencies in the Criminal Justice Technology field. The student will either pursue a study project directed by the instructor within the institution or an internship in a related agency supervised by the instructor. Placement is subject to the availability of an approved site. Topics include: observation and/or participation in Criminal Justice Technology activities, interpersonal skills development, community oriented policing, cultural diversity, critical thinking/problem solving, and an independent study project.

DDF 100 - Drafting Fundamentals - Credit Hours: 6
Prerequisite: Provisional Admission
This course introduces fundamental concepts and operations necessary to utilize microcomputers for developing fundamental drafting techniques. Emphasis is placed on basic concepts, terminology, and techniques necessary for CAD applications. Topics include: history of drafting, safety practices, geometric terms/media sizes, hardware and software care and use, basic entities, CAD commands, Line Relations, basic CAD applications and geometric construction. *(Quarterly for Day and Evening Classes)*

DDF 101 - Introduction to Drafting - Credit Hours: 6
Emphasizes the development of fundamental drafting techniques. Topics include terminology, drafting equipment care and use, lettering, line relationships, and geometric construction. *(Quarterly for Day and Evening Classes)*

DDF 102 - Size and Shape Description I - Credit Hours: 5
Prerequisites/Corequisites: DDF 101 or DDF 100, DDF 107
Provides multiview and dimensioning techniques necessary to develop views that completely describe machine parts for manufacture. Topics include: multiview drawing, basic dimensioning practices, tolerances and fits, sketching, and precision measurement. *(Quarterly for Day and Evening Classes)*

DDF 103 - Size and Shape Description II - Credit Hours: 5
Prerequisites/Corequisites: DDF 101, DDF 102
Continues dimensioning skill development and introduces sectional views. Topics include advanced dimensioning practices and development of section views in pencil and/or ink. *(Quarterly for Day and Evening Classes)*

DDF 104 - Pictorial Drawing - Credit Hours: 3
Prerequisite: DDF 103
Introduces the use of technical sketching and pictorial drawing. Topics include: axonometric drawings, oblique drawings, and pictorial sketching. *(Fall, Spring for Day and Evening Classes)*

DDF 105 - Auxiliary Views - Credit Hours: 3
Prerequisite/Corequisite: DDF 102
Introduces techniques necessary for auxiliary view drawings. Topics include primary and secondary auxiliary views in pencil and/or ink. *(Quarterly for Day and Evening Classes)*

DDF 106 - Fasteners - Credit Hours: 6
Prerequisite/Corequisite: DDF 102
Provides knowledge and skills necessary to draw and specify fasteners. Topics include: utilization of technical reference resources, types of threads, representation of threads, specifying threads, fasteners, and welding symbols. *(Quarterly for Day and Evening Classes)*

DDF 107 - CAD Fundamentals - Credit Hours: 6
Prerequisites/Corequisites: SCT 100, DDF 102
Introduces basic concepts, terminology, and techniques necessary for CAD applications. Topics include terminology, CAD commands, basic entities, and basic CAD applications. *(Quarterly for Day and Evening Classes)*

DDF 108 - Intersections and Development - Credit Hours: 5
Prerequisites/Corequisites: DDF 103, MAT 104
Introduces the graphic description of objects represented by the intersection of geometric components. Topics include surface development; establishment of true length; and intersections of line, planes, prisms, pyramids, curved surfaces, and cylinders and cones. *(Winter, Summer for Day and Evening Classes)*

DDF 109 - Assembly Drawings I - Credit Hours: 5
Prerequisites/Corequisites: DDF 104, DDF 107
Provides knowledge and skills necessary to make working drawings. Topics include technical reference source use, detail drawings, orthographic assembly drawings, and pictorial assembly drawings executed using drafting board and/or CAD equipment. *(Quarterly for Day and Evening Classes)*

DDF 111 - Intermediate CAD - Credit Hours: 6
Prerequisite: DDF 107
Continues developing CAD utilization skills in discipline-specific applications. Topics include: intermediate CAD commands, entity management, advanced line construction, block construction and management, command reference customization, advanced entity manipulation, and system variables. *(Winter, Summer for Day and Evening Classes)*

DDF 112 - 3D Drawing and Modeling - Credit Hours: 6
Prerequisite: DDF 111
Continues developing CAD utilization skills in discipline-specific applications. Topics include: advanced CAD commands, CAD applications, macro applications, macro utilization, application utilization, 3D modeling, rendering, advanced application utilization, and pictorial drawings. *(Fall, Spring for Day and Evening Classes)*

DDS 201 - Strength of Materials - Credit Hours: 5
Prerequisites: ENG 111, MAT 104
Provides a non-calculus based overview of the behavior of materials when subjected to different loadings and restraints and the prediction of materials' behavior in different situations. Topics include stress, strain, tension, moments of inertia, and beam bending. *(Fall, Spring for Day and Evening Classes)*

DDS 203 - Surveying I - Credit Hours: 3
Prerequisites: DDF 107, MAT 104
Introduces fundamental plane surveying concepts, instruments, and techniques. Topics include linear measurement; angles, bearings, and directions; and use of instruments such as transits, theodolites, levels, and electronic distance meters. *(Summer for Day and Evening Classes)*

DDS 204 - Estimating - Credit Hours: 3
Prerequisites: ENG 101, MAT 104
Introduces the essential skills necessary for assessing the expected materials, labor requirements and costs for given structures or products. Topics include: blueprint reading, material take-offs, price extension, and utilization of reference sources. *(Fall, Spring for Day and Evening Classes)*

DDS 205 - Residential Architectural Drawing I - Credit Hours: 6
Prerequisites: DDF 111, DDS 201, ENG 111, MAT 104
Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include floor, footing, and foundation plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; and specifications. *(Fall, Spring for Day and Evening Classes)*

DDS 207 - Mechanical Systems for Architecture - Credit Hours: 3
Prerequisite/Corequisites: DDS 205, DDS 206, PHY 221
Reinforces technical knowledge and skills required to develop accurate mechanical and electrical plans. Topics include: heating, ventilation, and air conditioning calculations and plans; electrical calculations and plans; and plumbing calculations and plans. *(Winter, Summer for Day and Evening Classes)*

DDS 208 - Residential Architectural Drawing II - Credit Hours: 6
Prerequisite/Corequisite: DDS 205
Continues in-depth architectural drawing practice and develops architectural design skills. Plans are designed to meet applicable codes. Topics include footing, foundation, and floor plans; interior and exterior elevations; sections and details; window, door, and finish schedules; site plans; specifications; and mechanical and electrical systems. *(Winter, Summer for Day and Evening Classes)*

DDS 209 - Structural Steel Detailing - Credit Hours: 6
Prerequisites: DDF 111, DDF 112
Develops knowledge and skills required for structural steel detailing and connection design utilized for commercial construction. Topics include office practices; steel shapes; beam reactions; framed connections; seated connections; and columns, base plates, and splices. *(Summer for Day Classes)*

DDS 225 - Principles of Metallurgy - Credit Hours: 4
Prerequisites: ENG 111, MAT 104
Introduces the fundamental physical properties of metals. Topics include materials properties and limitations, materials processing techniques, treating materials, testing materials, and micro-structural characteristics. *(Winter, Summer for Day and Evening Classes)*

DDS 226 - Manufacturing Processes - Credit Hours: 4
Prerequisites/Corequisites: ENG 111, MAT 104
Introduces basic industrial manufacturing processes. Topics include measuring processes; gauging and inspecting processes; hot processes such as welding, forging, and forming; cold processes such as cutting, forming, and rolling; and finishing processes. *(Fall, Spring for Day and Evening Classes)*

DDS 227 - Jig, Fixture, and Die Drawing - Credit Hours: 6
Prerequisites: DDF 111, DDF 112, DDS 225
Introduces detailing of jigs, fixtures, and dies to meet industrial standards given required specifications. Topics include: multi-view working drawing, tolerances, precision measurement and dimensioning practices, quality control, standard parts, and reference source utilization. *(Winter, Summer for Day and Evening Classes)*

DDS 229 - Gears and Cams - Credit Hours: 6
Prerequisites: DDS 201, DDS 226, MAT 104
Emphasizes calculation, specification development and drawing of gear and cam systems to produce desired results. Topics include reference utilization, solution for two unknowns, standard gear applications, standard cam applications, and gear ratios. *(Fall, Spring for Day and Evening Classes)*

DDS 230 - Mechanisms I - Credit Hours: 7
Prerequisite/Corequisite: DDS 229
Emphasizes familiarization with and utilization of common linkage types. Students apply linkage concepts to specific problems. Topics include direct linkages, multi-linkages, standardized gear boxes, and fundamental robotic concepts. *(Winter, Summer for Day and Evening Classes)*

DDS 232 - Mechanical Power Transmissions - Credit Hours: 6
Prerequisite/Corequisite: DDS 230
Provides opportunities for design utilization of multiple power transmission methodology. Topics include belts and pulleys, clutches and brakes, sprockets and chains, gear boxes, hydraulics, and pneumatics. *(Fall, Spring for Day and Evening Classes)*

ECE 101 - Introduction to Early Childhood Care and Education - Credit Hours: 5
Prerequisite: Provisional Admission
Introduces concepts relating the responsibilities and procedures involved in a variety of early childhood care situations. Topics include: historical perspectives, career opportunities, work ethics, functioning in a team environment, program management, learning environment, cultural diversity, licensure and accreditation, and professional resource file (portfolio) guidelines.

ECE 103 - Human Growth and Development I - Credit Hours: 5
Prerequisite: Provisional Admission
Introduces the student to the physical, social, emotional, and cognitive development of the young child (0 to 5 years of age). Provides for competency development in observing, recording, and interpreting growth and development stages in the young child, advancing physical and intellectual competence, supporting social and emotional development, and providing positive guidance. Topics include: developmental characteristics, observation and recording, guidance techniques, and developmentally appropriate practice, and introduction to children with special needs.

ECE 105 - Health, Safety and Nutrition - Credit Hours: 5
Prerequisite: Provisional Admission
Introduces the theory, practices, and requirements for establishing and maintaining a safe, healthy learning environment. Topics include: CPR and first aid, children's health problems, environmental health and safety, child abuse and neglect, and nutritional needs of children.

ECE 112 - Curriculum Development - Credit Hours: 3
Prerequisites/Corequisites: ECE 101, ECE 103
Develops knowledge and skills that will enable the student to establish a learning environment appropriate for young children. Topics include: instructional media, learning environments, curriculum approaches, development of curriculum materials, and community resources.

ECE 113 - Art for Children - Credit Hours: 3
Prerequisite: Provisional Admission
Introduces the concepts related to creativity in art. This course combines lecture and lab experiences to introduce the many media areas used by children to express themselves. Topics include: concepts of creativity; art media, methods, and materials for creative activities; planning and preparation of art lessons; and appreciation of children's art processes and products.

ECE 114 - Music and Movement - Credit Hours: 3
Prerequisite: Provisional Admission
Introduces the concepts related to creativity in music and movement. This course combines lecture and lab experiences to introduce the developmental influences of music and movement; their social and emotional value; and media, methods, and materials used to foster musical activity and creative movement. Topics include: spontaneous/planned music and movement, music equipment, music material, and coordination of movement and music.

ECE 115 - Language Arts and Literature - Credit Hours: 5
Prerequisites/Corequisites: ECE 103
Develops knowledge and skills that will enable the student to plan and implement appropriate listening, speaking, pre-writing, and reading readiness activities for young children. Topics include: reading readiness, oral communication activities, writing readiness, listening comprehension, literature selection, and story presentation.

ECE 116 - Math and Science - Credit Hours: 5
Prerequisites/Corequisites: ECE 103
Presents the process of introducing science and math concepts to young children. Includes planning and implementation of appropriate activities and development of methods and techniques of delivery. Topics include: cognitive development in math and science, math and science activity planning, and development of math and science materials.

ECE 121 - Early Childhood Care and Education Practicum I - Credit Hours: 3
Prerequisite: Departmental Approval
Provides the student with a supervised opportunity to gain experience in the actual lab job setting. Practicum training topics include: good work habits, supervised planning, interaction with children and parents, application of guidance techniques, and classroom management.

ECE 122 - Early Childhood Care and Education Practicum II - Credit Hours: 3
Prerequisite: Departmental Approval
Provides the student with a supervised opportunity to gain additional experience in the actual lab job setting. Practicum training topics include: good work habits, application of guidance techniques, interaction with children and parents, program planning, and classroom management.

ECE 201 - Exceptionalities - Credit Hours: 5
Prerequisite: ECE 103
Provides for the development of knowledge and skills that will enable the student to understand individuals with special needs and appropriately guide their development. Special emphasis is placed on acquainting the student with programs and community resources that serve families with special needs persons. Topics include: inclusion/least restrictive environment (LRE), physical disabilities and health disorders, intellectual exceptionalities, and social/emotional disorders.

ECE 202 - Social Issues and Family Involvement - Credit Hours: 5
Prerequisite: Provisional Admission
Enables the student to become familiar with the social problems that affect families of today and to develop a plan for coping with these problems as they occur in the occupational environment. Students are introduced to local programs and agencies that offer services to those in need. Topics include: professional responsibilities, family issues, and community resources.

ECE 203 - Human Growth and Development II - Credit Hours: 5
Prerequisite: ECE 103
Introduces the student to the physical, social, emotional, and intellectual development of the school age child (6 to 12 years of age). Provides learning experiences related to the principles of human growth, development maturation, and theories of learning and behavior. Topics include: developmental characteristics, guidance techniques, and developmentally appropriate practice.

ECE 211 - Methods and Materials - Credit Hours: 5
Prerequisite: ECE 112
Develops skills to enable the student to work as a paraprofessional in a program for pre-kindergarten through elementary aged children. Topics include: instructional techniques, curriculum, and materials for instruction.

ECE 212 - Professional Practices and Classroom Management - Credit Hours: 5
Prerequisite: Departmental Approval
Develops knowledge that will enable the student to work as a paraprofessional in a program from pre-kindergarten through elementary-aged children. Topics include: professional qualifications, and professionalism.

ECE 217 - Program Administration - Credit Hours: 5
Prerequisite: Program Admission
Provides training in planning, implementation, and maintenance of an effective early childhood organization. Topics include: organization, mission, philosophy, goals, and history of a program; types of programs; laws, rules, regulations, and accreditation; needs assessments; administrative roles and board of directors; marketing, public and community relations, grouping, and enrolling and retention; working with parents; and professionalism and work ethics.

ECE 221 - Facility Management - Credit Hours: 5
Prerequisite: Program Admission
Provides training in early childhood facilities management. Topics include: money management/cost containment, space management, and program and equipment supply management.

ECE 222 - Personnel Management - Credit Hours: 5
Prerequisite: Program Admission
Provides personnel management training in early childhood settings. Topics include: communication; management strategies; personnel planning; personnel policies; managing payroll/cost containment; recruitment, selection, hiring and firing, and staff retention; staff scheduling; staff development; guidance and supervision; conflict resolution; and staff evaluations.

ECE 224 - Early Childhood Care and Education Internship - Credit Hours: 12
Prerequisite: Program Admission
Provides the student with the opportunity to gain experience in a simulated or actual work setting. Students will be placed in an approved setting(s) throughout the quarter where planning, implementing, observing, and evaluating activities are the focus of their involvement. An evaluation procedure will be used by the designee of the institution and the on-site supervisor to critique the student's performance on the job. Topics include: problem solving, use of proper interpersonal skills, application of developmental appropriate practices, professional development, and resource file (portfolio) assessment.

ECO 191 - Principles of Economics - Credit Hours: 5
Prerequisite: ENG 191
Provides a description and analysis of economic operations in contemporary society. Emphasis is placed on developing an understanding of economic concepts and policies as they apply to everyday life. Topics include basic economic principles; economic forces and indicators; capital and labor; price, competition, and monopoly; money and banking; government expenditures, federal and local; fluctuations in production, employment, and income; and the United States economy in perspective. *(Fall, Spring for Day Classes; Winter, Summer for Evening Classes)*

ELC 104 - Soldering Technology - Credit Hours: 2
Develops the ability to solder and desolder connectors, components, and printed circuit boards using industry standards. Topics include safety practices, soldering, desoldering, anti-static grounding, and surface mount techniques. *(Winter, Summer for Day Classes; Winter for Evening Classes)*

ELC 108 - Direct Current Circuits II - Credit Hours: 4
Prerequisite/Corequisite: IFC 101
Continues direct current (DC) concepts and applications. Topics include complex series/parallel circuits and DC theorems. *(Fall, Spring for Day Classes; Fall for Evening Classes)*

ELC 110 - Alternating Current II - Credit Hours: 4
Prerequisite/Corequisite: IFC 102
Continues development of AC concepts with emphasis on constructing, verifying, and trouble-shooting reactive circuits using RLC theory and oscilloscopes. Topics include simple RLC circuits, AC circuit resonance, passive filters, transformer theory and applications, and non-sinusoidal wave forms. *(Winter, Summer for Day Classes; Winter for Evening Classes)*

ELC 115 - Solid State Devices II - Credit Hours: 4
Prerequisite/Corequisite: IFC 103
Continues the exploration of the physical characteristics and applications of solid state devices. Topics include bipolar junction theory and bipolar junction applications. *(Summer, Winter for Day Classes; Spring for Evening Classes)*

ELC 117 - Linear Integrated Circuits - Credit Hours: 4
Prerequisite/Corequisite: ELC 115
Provides in-depth instruction on the characteristics and applications of linear integrated circuits. Topics include operational amplifiers, timers, and three-terminal voltage regulators. *(Winter, Summer for Day Classes; Fall for Evening Classes)*

ELC 118 - Digital Electronics I - Credit Hours: 4
Prerequisite/Corequisite: ELC 108
Introduces the basic building blocks of digital circuits. Topics include binary arithmetic, logic gates and truth tables, Boolean algebra and minimization concepts, logic families, and digital test equipment. *(Fall, Spring for Day Classes; Winter for Evening Classes)*

ELC 119 - Digital Electronics II - Credit Hours: 4
Prerequisite/Corequisite: ELC 118
Uses the concepts developed in Digital Electronics I as a foundation for the study of more advanced devices and circuits. Topics include flip-flops, counters, multiplexers and demultiplexers, encoding and decoding, display drivers, and analog to digital and digital to analog conversions. *(Winter, Summer for Day Classes; Spring for Evening Classes)*

ELC 120 - Microprocessors I - Credit Hours: 4
Prerequisite/Corequisite: ELC 119
Introduces the fundamentals of current microprocessors. The course focuses on current generation microprocessors. Topics include microprocessor architecture, instruction set, addressing schemes, debugging, and memory devices. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

ELC 125 - Solid State Devices III - Credit Hours: 4
Prerequisite/Corequisite: ELC 115
Continues the exploration of the physical characteristics and applications of solid state devices. Topics include field effect transistors, power control and switching devices, and display devices. *(Winter, Summer for Day Classes; Fall for Evening Classes)*

ELC 211 - Process Control - Credit Hours: 6
Prerequisite/Corequisite: ELC 120
Introduces industrial process control applications with an emphasis on sensors and signal conditioning. Topics include symbology and drawing standards, control techniques, sensors and signal conditioning, and ISA and other relevant standards. *(Summer, Winter for Day Classes)*

ELC 212 - Motor Controls - Credit Hours: 6
Prerequisite/Corequisite: ELC 120
Introduces the application of motor controls in the industrial environment. Topics include AC/DC motors, AD/DC drives, MCC and contractors, NEC and NEMA standards, ladder diagrams, and power sources. *(Winter, Summer for Day Classes)*

ELC 213 - Programmable Controllers - Credit Hours: 5
Prerequisite/Corequisite: ELC 120
Provides the basic skills and techniques used in industrial application of programmable controls. Topics include controller hardware, programming, PC applications, and troubleshooting. *(Winter, Summer for Day Classes)*

ELC 214 - Mechanical Devices - Credit Hours: 3
Prerequisite/Corequisite: MAT 193 or MAT 104 or MAT 105
Develops knowledge and skills necessary to transmit mechanical power using common industrial linkage types. Emphasis is placed on use of mechanical devices in combination with electronic controls. Topics include: linkages, motion analysis, gear drives, and preventative maintenance.

ELC 215 - Fluid Power - Credit Hours: 3
Prerequisite/Corequisite: MAT 193 or MAT 104 or MAT 105
Provides an overview of fluid power operation as applied to industrial electronics. Emphasis is placed on the interfacing of electronic and fluidic systems. Topics include: safety, fluid dynamics, hydraulics, pneumatics, air logic, and electrical interfacing.

ELC 216 - Robotics - Credit Hours: 2
Prerequisites/Corequisites: ELC 213 and ELC 214 and ELC 215
Explores robotic concepts, terminology, and basic applications. Emphasis is placed on programming in robotic languages and robot/human interfacing safety practices. Topics include: safety, terminology, language, and programming.

ELC 217 - Computer Hardware - Credit Hours: 7
Prerequisites: ELC 120
Provides instruction to the fundamentals of installing, configuring, upgrading, troubleshooting, and repairing microcomputer systems. Topics include: installation, configuration, upgrading, diagnosing, troubleshooting, preventative maintenance, basic hardware, and basic networking. *(Fall for Day Classes)*

ELC 218 - Operating Systems Concepts - Credit Hours: 7
Prerequisite: ELC 120
Provides a study of interrelationships of hardware and software at the system level and the functional operation and utilization of the operating system. Topics include: use of operating system components, system installation and generation, utilities and commands, file structure and management, multi-user operating system theory, and software applications.

ELC 219 - Networking I - Credit Hours: 4
Prerequisites: ELC 120
Provides an introduction to networking technologies. Covers a wide range of material about networking from careers in networking to local area networks, wide area networks, protocols, topologies, transmission media, and security. Focuses on operating network management systems and implementing the installation of networks. The course reviews cabling, connection schemes, the fundamentals of LAN and WAN technologies, TCP/IP configuration and trouble shooting, remote connectivity, and network maintenance and troubleshooting. Topics include: media and topologies; protocols and standards; network implementation; and network support. *(Winter for Day Classes)*

ELC 286 - CompTIA A+ Certification - Credit Hours: 5
Prerequisites: ELC 217 and ELC 218, or CIS 122 and CIS 140
Prepares the student to take the CompTIA A+ examination by reviewing the A+ CORE and A+ Operating Systems Objectives. Topics include: A+ Core Hardware and A+ Operating Systems Technologies. *(Winter for Day Classes)*

ELT 113 - Programmable Logic Control I - Credit Hours: 4
Prerequisites/Corequisites: ELT 111, ELT 112, ELT 118
Introduces operational theory, systems terminology, field wiring/installation, and start-up procedures for programmable logic controls. Emphasis will be placed on PLC programming, connections, installations, and start-up procedures. Topics include introductory programming, PLC functions and terminology, processor unit and power supply, introductory numbering system, relay/programming logic, and field wiring/installation and start-up. *(Winter Summer, Alternating Years for Day Classes Only)*

ELT 114 - Programmable Logic Control II - Credit Hours: 2
Prerequisite/Corequisite: ELT 113
Provides for development of operational skills in the use of PLC equipment and peripheral devices. Emphasis is placed on printers and other peripheral devices, PLC hard wiring, program writing, installation procedures, and operation of PLC program. Topics include program control information/data manipulation, report generation (output), peripheral devices, field wiring/installation, start-up, troubleshooting, and program enhancement/optimization. *(Winter, Summer, Alternating Years for Day Classes)*

EMP 100 - Interpersonal Relations and Professional Development - Credit Hours: 3
Prerequisite: Program Ready Status in Reading and English
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations skills, job acquisition skills, job retention skills, job advancement skills, and professional image skills. *(Quarterly for Day, Evening, and Internet Classes)*

EMS 120 - Emergency Medical Technology I-Basic - Credit Hours: 8
Introduces the student to the Emergency Medical Technician profession. This course covers the first half of the U.S. Department of Transportation Basic EMT Program. Topics include: introduction to emergency care, EMS systems, well-being of the EMT, medical-legal aspects of emergency care, hazardous materials, blood and airborne pathogens infectious diseases, ambulance operations and emergency vehicle operations, the human body, patient assessment, communications and documentation, lifting and moving patients, gaining access, airway, basic life support-CPR and automatic external defibrillation. *(Winter for Evening Classes)*

EMS 121 - Emergency Medical Technology II-Basic - Credit Hours: 7
Prerequisites: EMS 120
Introduces the student to the Emergency Medical Technician profession. This course covers the second half of the U.S. Department of Transportation Basic EMT Program. Topics include: general pharmacology, respiratory emergencies, cardiology, diabetes, altered mental status, seizures, allergies, poisonings, environmental emergencies, behavioral emergencies, bleeding and shock, PASG, soft tissue injuries, musculoskeletal injuries, head and spinal injuries, OB/GYN, infants and children, and special needs patients. *(Spring for Evening Classes)*

EMS 122 - Emergency Medical Technology-Intermediate - Credit Hours: 9
Prerequisites: EMS 121
This course covers the U.S. Department of Transportation 1985 Emergency Medical Technician-Intermediate Curriculum. The EMT-I course is designed to provide additional training and increased knowledge and skills in specific aspects of advanced life support. This course is for individuals who have successfully completed the EMT-Basic course as a prerequisite. Topics include: roles and responsibilities, EMS systems, medical legal, communications, documentation, medical terminology, body systems, patient assessment, advanced airway, shock, trauma, shock management, IV administration, intraosseous infusion, medical emergencies I, medical emergencies II, diabetes emergencies and dextrose 50% administration, patient handling, and extrication. *(Summer for Evening Classes)*

ENG 095 - Developmental English I - Institutional Credit Hours: 5
Prerequisite: Placement by diagnostic testing
Introduces basic grammar. Topics include basic vocabulary, simple sentences, sentence capitalization, end punctuation marks, and spelling. *(Quarterly for Day and Evening Classes)*

ENG 096 - Developmental English II - Institutional Credit Hours: 5
Prerequisites: ENG 095 or placement by diagnostic testing
Emphasizes standard English usage. Topics include capitalization, subjects and predicates, punctuation, sentence structure, correct verb tenses, standard spelling, and basic paragraph development. *(Quarterly for Day and Evening Classes)*

ENG 097 - Developmental English III - Institutional Credit Hours: 5
Prerequisite: ENG 096 or placement by diagnostic testing
Emphasizes the rules of grammar, punctuation, and spelling in order to ensure a smooth transition into communicating orally and in writing. Topics include basic grammar review, use of punctuation, use of capitalization, recognition of clauses and phrases, spelling, writing sentences, and writing simple paragraphs. *(Quarterly for Day and Evening Classes)*

ENG 098 - Developmental English IV - Institutional Credit Hours: 5
Prerequisite: ENG 097 or placement by diagnostic testing
Emphasizes the ability to communicate using written and oral methods. Topics include basic paragraph construction, proofreading, the essay format, written reports, oral reports, and review of grammar and usage. *(Quarterly for Day and Evening Classes)*

ENG 101 - English - Credit Hours: 5
Prerequisites: ENG 097 and RDG 097 or Program Ready Status in English and Reading
Emphasizes the development and improvement of written and oral communication abilities. Topics include: analysis of writing techniques used in selected readings, writing practice, editing and proofreading, research skills, and oral presentation skills. Homework assignments reinforce classroom learning.

ENG 111 - Business English - Credit Hours: 5
Prerequisites: ENG 097 and RDG 097 or Program Ready Status in English and Reading
Emphasizes a functional and comprehensive review of English usage. Topics include English grammar, sentence structure, and composition fundamentals. The course includes an introduction to library resources and the research process. Minimum grade of "C" is required to advance to ENG 112, Business Communications. *(Quarterly for Day, Evening, and Internet Classes.)*

ENG 112 - Business Communications - Credit Hours: 5
Prerequisites: Keyboarding proficiency, ENG 111 or ENG 191 with a Grade of "C" or better
Provides knowledge and application of written and oral communications found in business situations. Topics include writing fundamentals and speaking fundamentals. *(Quarterly for Internet Classes; Fall, Spring for Evening Classes as needed; Winter, Summer for Day Classes as needed.)*

ENG 191 - Composition and Rhetoric I - Credit Hours: 5
Prerequisites: ENG 098 and RDG 098 or ENG 111 with a grade of "C" or better, or program ready status in English and Reading
Explores the analysis of literature and articles about issues in the humanities and in society. Students practice various modes of writing ranging from exposition to argumentation and persuasion. The course includes a review of standard grammatical and stylistic usage in proofreading and editing. The course includes an introduction to library sources, foundations of research, and writing the research paper. Topics include writing analysis and practice, revision, and research. An introduction to literary fiction is also included. Minimum grade of "C" is required to advance to ENG 193, ENG 195, HUM 191, or SPC 191. *(Quarterly for Day, Evening, and Internet Classes.)*

ENG 193 - Composition and Rhetoric II - Credit Hours: 5
Prerequisite: ENG 191 with a "C" or better
Emphasizes the student's ability to read literature analytically and meaningfully and to communicate clearly. Students analyze the form and content of literature and practice various modes of writing. Topics include reading and analysis of fiction, poetry, and drama; research; and writing about literature. *(Fall and Spring for Day Classes, Winter and Summer for Evening Classes, Quarterly for Internet Classes)*

ENG 195 - Technical Communications - Credit Hours: 5
Prerequisite: ENG 191 with a "C" or better
Emphasizes practical knowledge of technical communications techniques, procedures, and reporting formats used in industry and business. Topics include research, device and process description, formal technical report writing, business correspondence, and oral technical report presentation. *(Winter and Summer for Internet Classes)*

HUM 191 - Introduction to Humanities - Credit Hours: 5
Prerequisite: ENG 191 with a grade of "C" or better.
Explores the philosophic and artistic heritage of humanity expressed through a historical perspective on visual arts, music, drama, and literature. The humanities are presented as a source of subjective insights for the understanding of people and society. The course emphasizes the connection of science and technology to culture and the arts. Topics include historical and cultural developments and contributions of the humanities. *(Quarterly for Day, Evening, and Internet Classes)*

IDS 101 - Industrial Computer Applications - Credit Hours: 5
Prerequisites: IFC 101, SCT 100
Provides a foundation in industrial computers and computer systems with a focus in linking computers to the plant floor process. Topics include: hardware, software, boot sequence, configuration, troubleshooting, and communication platforms.

IDS 103 - Industrial Wiring I - Credit Hours: 6
Prerequisites/Corequisites: IFC 101, IFC 102
Provides instruction in the fundamental concepts of industrial wiring with an emphasis on NEC requirements. Topics include wiring devices and materials; symbols and blueprint reading; branch and feeder circuits; switches, receptacles, and cord connectors; grounding; wire sizing; over current protection; and NEC requirements. *(Fall, Spring, Alternating Years for Day Classes)*

IDS 105 - DC and AC Motors - Credit Hours: 3
Prerequisites/Corequisites: IFC 101, IFC 102, MAT 104
Introduces the fundamental theories and applications of single phase and three-phase motors. Topics include motor theory and operating principles, motor terminology, motor identification, NEMA standards, AC motors, DC motors (series, shunt, and compound), scheduled preventive maintenance, troubleshooting and failure analysis, and Article 430 of the National Electrical Code. *(Winter, Summer, Alternating Years for Day Classes)*

IDS 110 - Fundamentals of Motor Controls - Credit Hours: 3
Prerequisite/Corequisite: IMT 118
Introduces the fundamental concepts, principles, and control devices involved in industrial motor control. Emphasis is placed on developing a theoretical foundation of industrial motor control devices. Topics include principles of motor control, control devices, symbols and schematic diagrams, and Article 430 N.E.C. *(Fall, Spring, Alternating Years for Day Classes)*

IDS 113 - Magnetic Starters and Braking - Credit Hours: 3
Prerequisite/Corequisite: IMT 119
Provides instruction in wiring motor control circuits. Emphasis is placed on designing and installing magnetic starters in across-the-line, reversing, jogging circuits, and motor braking. Topics include control transformers, full voltage starters, reversing circuits, jogging circuits, and braking. *(Fall, Spring, Alternating Years for Day Classes)*

IDS 115 - Two-Wire Control Circuits - Credit Hours: 2
Prerequisite/Corequisite: IMT 120
Provides instruction in two-wire motor control circuits using relays, contractors, and motor starters with application sensing devices. Topics include wiring limit switches, wiring pressure switches, wiring float switches, wiring temperature switches, wiring proximity switches, and wiring photo switches. *(Fall, Spring, Alternating Years for Day Classes)*

IDS 121 - Advanced Motor Controls - Credit Hours: 2
Prerequisite/Corequisite: IMT 121
Continues instruction in the study and application of motor control circuits with emphasis on sequencing circuits, complex circuits, and motor control centers. Topics include sequencing circuits, reduced voltage starting, motor control centers, and troubleshooting. *(Winter, Summer, Alternating Years for Day Classes)*

IDS 131 - Variable Speed Motor Control - Credit Hours: 3
Prerequisite/Corequisite: IMT 122
Provides instruction in the fundamentals of variable speed drives, industrial motors, and other applications of variable speed drives. Topics include fundamentals of variable speed control, AC and DC motors, solid state controls, installation procedures, and ranges. *(Fall, Spring, Alternating Years for Day Classes)*

IDS 141 - Basic Industrial PLCs - Credit Hours: 6
Prerequisites: IDS 105, IDS 121
Introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installation, and start-up procedures. Topics include: PLC hardware and software, PLC functions and terminology, PLC installation and set-up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures.

IDS 142 - Industrial PLCs II - Credit Hours: 6
Prerequisite/Corequisite: IDS 141
Provides for hands-on development of operational skills in the maintenance and troubleshooting of industrial control systems and automated industrial equipment. Emphasis is placed on applying skills developed in previous courses in programmable logic controls (PLCs) in an industrial setting. This course includes advanced skills necessary to complete the studentfs knowledge and skills to understand and work with PLCs in an industrial plant.

IDS 209 - Industrial Instrumentation - Credit Hours: 6
Prerequisites: IDES 141, IDS 142
Provides instruction in the principles and practices of instrumentation for industrial process control systems with an emphasis on industrial maintenance techniques for production equipment. Topics include: instrument tags; process documentation; basic control theory; sensing pressure, flow, level, and temperature; instrument calibration; and loop tuning.

IFC 100 - Industrial Safety Procedures - Credit Hours: 2
Provides an in-depth study of the health and safety practices required for maintenance of industrial, commercial, and home electrically operated equipment. Topics include: introduction to OSHA regulations; safety tools, equipment, and procedures; and first aid and cardiopulmonary resuscitation.

IFC 101 - Direct Current Circuits I - Credit Hours: 4
Introduces direct current (DC) concepts and applications. Topics include: fundamental electrical principles and laws; batteries; direct current test equipment; series, parallel, and simple combination circuits; and basic laboratory procedures and safety practices.

IFC 102 - Alternating Current I - Credit Hours: 4
Prerequisites/Corequisites: ELC 108, MAT 104
Introduces the theory and application of varying sine wave voltages and current. Topics include AC wave generation, oscilloscope operation, inductance, and capacitance. *(Winter, Summer for Day Classes; Winter for Evening Classes)*

IFC 103 - Solid State Devices I - Credit Hours: 4
Prerequisite/Corequisite: ELC 110
Introduces the physical characteristics and applications of solid state devices. Topics include PN diodes, power supplies, voltage regulation, and special applications. *(Fall, Spring for Day Classes; Spring for Evening Classes)*

MAS 101 - Legal Aspects of the Medical Office - Credit Hours: 2
Introduces the basic concept of medical assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical assistant's role as an agent of the physician. Provides the student with knowledge of medical jurisprudence and the essentials of professional behavior. Topics include introduction to medical assisting, introduction to medical law, the physician-patient-assistant relationship, the medical office in litigation, and ethics. *(Summer for Day Classes)*

MAS 103 - Pharmacology - Credit Hours: 5
Prerequisites: AHS 101, MAT 101
Introduces drug therapy with emphasis on safety, classification of drugs, their action, side effects, and/or adverse reactions. Also introduces the basic concept of mathematics used in the administration of drugs. Topics include introduction to pharmacology, sources and forms of drugs, drug classification, commonly prescribed medications according to body systems, effects of drugs on the body systems, systems of measurement, and calculating adult and pediatric dosages. *(Summer for Day Classes)*

MAS 106 - Medical Office Procedures - Credit Hours: 4
Prerequisites: Program Admission; BUS 101, AHS 101, MAT 101
Emphasizes essential skills required for the typical medical office. Topics include: medical office protocol, time management, appointment making, telephone techniques, medical office equipment, mail services, medical references, medical filing, correspondence, and travel and meeting arrangements. *(Summer Quarter for Day Classes)*

MAS 108 - Medical Assisting Skills I - Credit Hours: 5
Prerequisites: AHS 101, AHS 109, BUS 101, MAS 101, MAS 103
Introduces the skills necessary for assisting the physician with a complete history and physical in all types of practices. The course includes skills necessary for sterilizing instruments and equipment and setting up sterile trays. The student also explores the theory and practice of electrocardiography. Topics include infection control, prepare patients/assist physician with examinations and diagnostic procedures, vital signs/mensuration, minor office surgical procedures, and electrocardiograms. *(Fall for Day Classes)*

MAS 109 - Medical Assisting Skills II - Credit Hours: 5
Prerequisites: MAS 103, MAS 108
Furthers the student's knowledge of the more complex activities in a physician's office. Topics include collection/examination of specimens; venipuncture; urinalysis; administration of medication including oral, topical, subcutaneous, intramuscular, and intradermal medication; first aid and CPR; physical therapy procedures; and principles of radiology and safety. *(Winter for Day Classes)*

MAS 112 - Human Diseases - Credit Hours: 5
Prerequisites: AHS 101, BUS 212, MAS 103
Provides clear, succinct, and basic information about common medical conditions. Taking each body system, the disease condition is highlighted following a logical formation consisting of description, etiology, signs and symptoms, diagnostic procedures, treatment, prognosis, and prevention. Topics include introduction to disease and diseases of body systems including the nutritional and pharmacological implications. *(Fall for Day Classes; Winter, Summer for Internet Classes)*

MAS 113 - Maternal and Child Care - Credit Hours: 5
Prerequisites: AHS 101, BUS 212, MAS 103, MAS 112
Focuses on the reproductive system, care of the mother in all stages of pregnancy, the normal and emotional growth of the healthy child, and care of the sick child. Topics include introduction to obstetrics, female and male reproductive systems, intrauterine development, prenatal care, labor and delivery, and stages of child development/newborn through adolescence. *(Winter for Day Classes)*

MAS 114 - Medical Administrative Procedures I - Credit Hours: 3
Prerequisites: MAS 101, BUS 101
Emphasizes essential skills required for the typical medical office in the areas of computerized applications in medical transcription. Topics include: computerized applications to medical transcription, application of computer skills, and medical terminology. *(Winter for Day Classes)*

MAS 115 - Medical Administrative Procedures II - Credit Hours: 3
Prerequisites: MAS 103, MAS 114, BUS 101
Emphasizes essential skills required for the typical medical office. Topics include: Accounting Procedures, Insurance Preparation and Coding. *(Fall for Day Classes)*

MAS 117 - Medical Assisting Externship - Credit Hours: 6/8
Prerequisite: Permission of Instructor
Provides students with an opportunity for in-depth application and reinforcement of principles and techniques in a medical office job setting. This clinical practicum allows the student to become involved in a work situation at a professional level of technical application and requires concentration, practice, and follow through. Topics include application of classroom knowledge and skills, functioning in the work environment, and listening and following directions. *(Spring for Day Classes)*

MAS 118 - Medical Assisting Seminar - Credit Hours: 4
Prerequisite: Permission of Instructor
Seminar focuses on job preparation and maintenance skills and review for the certification examination. Topics include letters of application, resumes, job interviews, letters of resignation, and review for the certification examination. *(Spring for Day Classes)*

MAS 151 - ICD-9 Coding I - Credit Hours: 3
Prerequisites: AHS 101, AHS 109, or BUS 212, ENG 101, BUS 101, MAS 112, MAS 153
ICD-9 Coding I focuses on the purpose, use, and arrangement of ICD-9 CM coding. Topics include symbols, punctuation, abbreviations, basic coding principles, and accurate diagnosis and procedure codes. Disease and complication for the systems are also included. *(Fall, Spring for Internet Classes)*

MAS 152 - ICD-9 Coding II - Credit Hours: 3
Prerequisites: AHS 101, AHS 109, or BUS 212, ENG 101, BUS 101, MAS 112, MAS 151, MAS 153
This course focuses on the ICD-9 CM coding for symptoms, signs and ill defined conditions. Coding II also focuses on V codes, E codes, procedural coding, DRG's and Hospital based outpatient services. The body systems covered in this course are respiratory, integumentary, endocrine, and genitourinary. Immunity and neoplasms are also covered. *(Fall, Spring for Internet Classes)*

MAS 153 - CPT-4 Coding - Credit Hours: 2
Prerequisites: AHS 101, AHS 109 or BUS 212, ENG 101, BUS 101, MAS 112
This course focuses on the background, development and purpose for CPT coding. Topics include symbols, punctuations, differences in the coding systems (CPT and ICD-9-CM), and guidelines for coding. *(Winter, Summer for Internet Classes)*

MAT 095 - Developmental Mathematics I - Institutional Credit Hours: 5
Prerequisite: Placement by diagnostic testing
Introduces elementary arithmetic needed for advancement to the level of basic mathematics. Topics include place value, reading and writing numbers, addition facts, subtraction facts, multiplication facts, division facts, and simple word problems. *(Quarterly for Day and Evening Classes)*

MAT 096 - Developmental Mathematics II - Institutional Credit Hours: 5
Prerequisites: MAT 095 or placement by diagnostic testing
Teaches the student basic arithmetic skills needed for the study of mathematics related to specific occupational programs. Topics include number theory, whole numbers, fractions, decimals, measurement, and word problems. Homework assignments reinforce classroom learning. *(Quarterly for Day and Evening Classes)*

MAT 097 - Developmental Mathematics III - Institutional Credit Hours: 5
Prerequisite: MAT 096 or placement by diagnostic testing
Emphasizes in-depth arithmetic skills needed for the study of mathematics related to specific occupational programs and for the study of basic algebra. Topics include number theory, fractions, decimals, ratio/proportion, percent, measurement/geometric formulas, and word problems. Homework assignments reinforce classroom learning. *(Quarterly for Day and Evening Classes)*

MAT 098 - Developmental Pre-Algebra - Institutional Credit Hours: 5
Prerequisite: MAT 097 or placement by diagnostic testing
Introduces prealgebra concepts and operations which will be applied to the study of beginning algebra. Topics include number theory, arithmetic review, signed numbers, algebraic operations, and introduction to algebra word problems. Homework assignments reinforce classroom learning. *(Quarterly for Day and Evening Classes)*

MAT 099 - Developmental Algebra - Institutional Credit Hours: 5
Prerequisite: MAT 098 or placement by diagnostic testing
Introduces concepts and operations which can be applied to the study of algebra. Course content emphasizes use of variables, manipulation of algebraic expressions, solution of linear and quadratic functions, and solution of systems of linear equations. Class includes lecture, applications, and homework to reinforce learning. *(Quarterly for Day and Evening Classes)*

MAT 101 - General Mathematics - Credit Hours: 5
Prerequisite: MAT 097 or Program Ready Status in Numerical Skills
Emphasizes mathematical skills that can be applied to the solution of occupational and technical problems. Topics include properties of numbers, fractions, decimals, percents, ratio and proportion, measurement and conversion, exponents and radicals, and geometric and technical formulas. Class includes lectures, applications, and homework to reinforce learning. *(Quarterly for Day and Evening Classes)*

MAT 103 - Algebraic Concepts - Credit Hours: 5
Prerequisites: MAT 098 or program ready status in numerical and elementary algebra skills
Introduces concepts and operations which can be applied to the study of algebra. Course content emphasizes basic mathematical concepts, basic algebraic concepts, and intermediate algebraic concepts. Class includes lecture, applications, and homework to reinforce learning. Minimum grade of "C" required to advance to MAT 104, MAT 191, MAT 196, or MAT 198. *(Quarterly for Day and Evening Classes)*

MAT 104 - Geometry and Trigonometry - Credit Hours: 5
Prerequisite: MAT 103 with a grade of "C" or better
Introduces and develops basic geometric and trigonometric concepts. Course content emphasizes measurement using English and metric systems, angle measure, similar triangles, right triangles, two and three-dimensional geometric formulas, right triangle trigonometry, oblique triangles, and laws of sines and cosines. *(Spring for Day Classes; Spring, Alternating Years for Evening Classes)*

MAT 111 - Business Mathematics - Credit Hours: 5
Prerequisites: MAT 097 or program ready status in numerical skills
Emphasizes basic mathematical concepts found in business situations. Topics include basic mathematical skills, mathematical skills in business-related problem solving, mathematical information for documents, graphs, and mathematical problems using electronic calculators. *(Quarterly for Day and Evening Classes)*

MAT 190 - Introduction to Mathematical Modeling - Credit Hours: 5
Prerequisites: MAT 099 and required Posttest score or MAT 103 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Intermediate Algebra Skills
This course is an alternative to College Algebra for those students who will not take Trigonometry, Pre-Calculus, or Calculus. It is an applications-driven course that introduces functions using real-world phenomena as models. The major topics include: fundamental concepts of algebra; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real-world phenomena; systems of equations; and additional topics in algebra. *(Offered on Demand)*

MAT 191 - College Algebra - Credit Hours: 5
Prerequisites: MAT 099 and required Posttest score or MAT 103 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Intermediate Algebra Skills
This course emphasizes techniques of problem solving using algebraic concepts and graphing calculators. The major topics include: fundamental concepts of algebra; techniques of solving equations and inequalities; the study of functions and their graphs; systems of equations; sequences, series, and probability; and analytic geometry.*(Quarterly)*

MAT 194 - Precalculus - Credit Hours: 5
Prerequisites: MAT 099 and required Posttest score or MAT 103 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Intermediate Algebra Skills
This course prepares students for Calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, trigonometric functions and their graphs, and extensive use of the graphing calculator. Applications include simple maximum and minimum problems, exponential growth and decay. *(Spring for Day Classes; Winter for Evening Classes)*

MAT 198 - Introduction to Statistics - Credit Hours: 5
Prerequisites: MAT 099 and required Posttest score or MAT 103 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Intermediate Algebra Skills
Discusses the concepts and methods fundamental to utilizing and interpreting commonly used statistics including extensive use of the graphing calculator. Topics include descriptive statistics, basic probability, discrete and continuous distributions, linear regression, and chi square test. *(Offered on demand)*

MCA 201 - Advanced Milling I - Credit Hours 7
Prerequisites: MCH 115, MCH 116
Provides instruction in advanced techniques of milling machine operations. Emphasis is placed on skill development through laboratory practice. Topics include vertical milling, horizontal milling, compound angles, gear cutting, and safety. *(Fall Quarter for Day Classes)*

MCA 203 - Advanced Milling II - Credit Hours 6
Prerequisite: MCA 201
Provides instruction in advanced techniques of milling machine operations. Topics include indexing, rotary tables, boring, facing, turning and straddle milling, and safety. Emphasis is placed on skill development through laboratory practice. *(Fall Quarter for Day Classes)*

MCA 205 - Advanced Lathe Operations I - Credit Hours: 7
Prerequisites: MCH 109, MCH 110
Provides instruction in advanced lathe operations and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include thread cutting, precision boring, precision knurling, tapers, and safety. *(Winter Quarter for Day Classes)*

MCA 207 - Advanced Lathe Operations II - Credit Hours: 6
Prerequisite: MCA 205
Provides instruction in advanced lathe operations and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include eccentric turning, special setups, tolerance turning, and safety. *(Winter Quarter for Day Classes)*

MCA 208 - Advanced Grinding I - Credit Hours: 4
Prerequisite: MCH 112
Provides instruction in advanced grinding operations and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include surface grinding, cylindrical grinding, tool and cutter grinding, grinding theory, and safety. *(Spring Quarter for Day Classes)*

MCA 209 - Advanced Grinding II - Credit Hours: 3
Prerequisite: MCA 208
Provides instruction in advanced grinding techniques and procedures. Emphasis is placed on skill development through laboratory experiences. Topics include grinding theory, abrasives, wheel preparation, form grinding, and safety. *(Spring Quarter for Day Classes)*

MCA 211 - CNC Fundamentals - Credit Hours: 7
Prerequisite: MCH 116
Provides a comprehensive introduction to computer numerical controller (CNC) machining processes. Topics include math review, safety, jigs and fixtures, tooling and tool holders, reference points, tool offset, and program loading and editing. *(Quarterly for Day and Evening Classes)*

MCA 213 - CNC Mill Manual Programming - Credit Hours: 8
Prerequisite: MCA 211
Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include machine safety, command codes, program loading, machine setup, process control, and practical application. *(Quarterly for Day Classes)*

MCA 215 - CNC Lathe Manual Programming - Credit Hours: 8
Prerequisite: MCA 211
Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) lathes. Topics include machine safety, command codes, program loading, machine setup, process control, and practical application. *(Quarterly for Day Classes)*

MCA 217 - CNC Practical Applications - Credit Hours: 6
Prerequisites: MCA 211, MCA 213, MCA 215
Provides instruction in specialty tooling and multi-axis machining. Students will also gain experience in process control. Topics include specialty tooling, EDM/ECM, specialty tooling, multi-axis machining, process control, safety, and laboratory practice. *(Quarterly for Day Classes)*

MCA 219 - CAD/CAM Programming - Credit Hours: 7
Prerequisite: MCA211
Emphasizes the development of skills in computer aided design (CAD) and computer aided manufacturing (CAM). The student will design and program parts to be machined on computer numerical controlled machines. Topics include hardware and software, digrizer, penplofter, drawing manipulations, tool path generation, and program uploading and downloading. *(Quarterly for Day Classes Only)*

MCH 101 - Introduction to Machine Tool - Credit Hours: 6
Prerequisite: Provisional Admission
Introduces the fundamental concepts and procedures necessary for the safe and efficient use of basic machine tools. Topics include use of hand and bench tools, use of power tools, analysis of measurements, safety and terminology, saw and blade selection, feed and speed determination, use of coolant, saws and blade maintenance, saw operations, drill setup and operations, ISO 9000, Deming's quality theory, quality goals and objectives, and coordinate measurement machines. *(Quarterly for Day Classes; Fall, Winter, Spring for Evening Classes)*

MCH 102 - Blueprint Reading for Machine Tool I - Credit Hours: 5
Prerequisite: Provisional Admission
Introduces the fundamental concepts and techniques necessary to interpret drawings and produce sketches for machine tool applications. Topics include interpretation of blueprints and sketching. *(Quarterly for Day and Evening Classes)*

MCH 104 - Machine Tool Math I - Credit Hours: 5
Prerequisite/Corequisite: MAT 101
Develops mathematic competencies as applied to machine tool technology. This course emphasizes manipulation and use of machining formulas and the discussion of machining geometry. Topics include machining algebra and machining geometry. *(Quarterly for Day and Evening Classes)*

MCH 105 - Machine Tool Math II - Credit Hours: 5
Prerequisite: MCH 104
Continues the development of mathematics competencies as applied to machine tool technology. Emphasis is placed on the uses of geometric and trigonometric principles in machining. Topics include advanced applied geometry and applied trigonometry. *(Quarterly for Day and Evening Classes)*

MCH 107 - Characteristics of Metal/Heat Treatment I - Credit Hours: 4
Prerequisite: Provisional admission
Introduces the properties of various metals, production methods, and identification of ferrous and non-ferrous metals. Topics include metallurgy and heat treatment. *(Quarterly for Day and Evening Classes)*

MCH 109 - Lathe Operations I - Credit Hours: 6
Prerequisite: Provisional admission
Provides opportunities for students to develop skills in the use of bench grinders and lathes. Topics include lathes, bench grinders, bench grinder operations, lathe calculations, lathe setup, lathe operations, and safety. *(Quarterly for Day Classes; Fall, Winter, and Spring for Evening Classes)*

MCH 110 - Lathe Operations II - Credit Hours: 6
Prerequisite: MCH 109
Provides further instruction for students to develop skill in the use of lathes. Topics include lathes, lathe setup, operations, and safety. *(Quarterly for Day Classes; Fall, Winter, and Spring for Evening Classes)*

MCH 112 - Surface Grinder Operations - Credit Hours: 6
Provides instruction in the setup, operations, maintenance, and assembly operations of surface grinders. Topics include surface grinder, maintenance, surface grinder setup, surface grinder operations, assembly operations, and safety. *(Quarterly for Day Classes; Fall, Winter, and Spring for Evening Classes)*

MCH 114 - Blueprint Reading II - Credit Hours: 5
Prerequisite/Corequisite: MCH 104
Continues the development of blueprint reading competencies as applied to Machine Tool Technology. Topics include geometric dimensioning and geometric tolerance, advanced sectioning and assembly drawings. *(Quarterly for Day and Evening Classes)*

MCH 115 - Mill Operations I - Credit Hours: 6
Prerequisite: Provisional Admission
Provides instruction in the setup and use of the milling machine. Topics include milling machines, milling machine calculations, milling machine setup, milling machine operation, and safety. *(Quarterly for Day Classes; Fall, Winter, and Spring for Evening Classes)*

MCH 116 - Mill Operations II - Credit Hours: 6
Prerequisite: MCH 115
Provides further instruction for students to develop skills in the use of milling machines. Topics include vertical and horizontal mill calculations, vertical and horizontal mill setup, vertical and horizontal mill operations, and safety. *(Quarterly for Day Classes; Fall, Winter, and Spring for Evening Classes)*

MCH 118 - Computer/CNC Literacy - Credit Hours: 5
Prerequisite: Provisional Admission
Provides an introduction to the terminology and application of microcomputers and terminology associated with computer numerical controlled (CNC) equipment. Students will become familiar with the basic operations of computers and the capabilities and limitations of CNC machinery. Topics include introduction to microcomputer concepts, basic microcomputer operations, functions and subroutines, machine tool applications, Cartesian coordinates, absolute and incremental programming, and capabilities and limitations of CNC. *(Quarterly for Day and Evening Classes)*

MCH 152 - Industrial Machine Applications - Credit Hours: 6
Prerequisites: MCH 110,MCH 112,MCH 116
Provides students an opportunity to perform creative and critical thinking skills needed to fabricate, modify, and maintain complex machine assemblies. Emphasis is placed on benchwork; lathe, mill, and grinder operations; tool selection; and sequencing fabrication operations. Topics include job planning, preparation for machining operations, and machining operations. *(Quarterly for Day; Fall, Winter, and Spring for Evening Classes)*

MKT 101 - Principles of Management - Credit Hours: 5
Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on personnel management, the basic supervisory functions, supervisory skills and techniques, and special challenges and demands of supervising employees. Topics include management theories; employee morale; motivating, supervising, and evaluating employees; recruitment, screening, and selection of employees; supervision techniques; and functions of management. *(Fall for Day Classes; Fall for Evening Classes)*

MKT 103 - Business Law - Credit Hours: 5
Introduces the study of contracts and other business obligations and the legal environment. Topics include creation and evolution of laws, court decision process, sales contracts, commercial papers, risk-bearing devices, and the Uniform Commercial Code. *(Fall, Spring for Day and Evening Classes)*

MKT 105 - Accounting for Marketing Applications - Credit Hours: 5
Prerequisite: MAT 111
Develops an awareness of the financial aspects of business. Topics include forecasting and budgeting, stock records, costs of overtime and job improvements, basic accounting principles (bookkeeping, ledger, and journal), basic accounting cycle, financial statements such as balance sheets and income statements, and financial ratios. *(Winter for Day and Evening Classes)*

MKT 161 - Service Industry Business Environment - Credit Hours: 2
Introduces the student to the service industry. Topics include an introduction to the service industry business environment, an introduction to lifelong learning, work ethics and positive behaviors required for exceptional customer service, an introduction to customer relations, working together successfully on teams, and basic business principles. *(Scheduled by Request)*

MKT 162 - Customer Contact Skills - Credit Hours: 6
Provides students with skills necessary to communicate with customers and successfully manage that relationship in both telephone and face-to-face situations. Topics include skills to effectively communicate with customers, developing rapport with customers, problem-solving in customer service, telephone skills, sales skills in the service environment, managing the difficult customer, and managing the multicultural customer. Computer based training is used to allow students to practice skills using simulated business situations. *(Scheduled by Request)*

MKT 163 - Computer Skills for Customer Service - Credit Hours: 3
Provides students with the fundamentals of computer skills in a customer service environment. Topics include introduction to computer technology, introduction to the Windows environment, introduction to word processing, introduction to spreadsheets, introduction to databases, introduction to E-mail, and credit card processing. *(Scheduled by Request)*

MKT 164 - Business Skills for the Customer Service Environment - Credit Hours: 3
Provides students with the fundamentals of basic business skills in the customer service environment. Topics include introduction to business correspondence, basic business calculations, change management, managing multiple tasks and priorities, and tools for team problem-solving and service improvement. *(Scheduled by Request)*

MKT 165 - Personal Effectiveness In Customer Service - Credit Hours: 1
Provides students with skills that will allow them to present a positive image to both coworkers and customers. Topics include personal wellness and stress management, positive image, and job interview skills. *(Scheduled by Request)*

MSD 101 - Interpersonal Employee Relations - Credit Hours: 5
Provides a general knowledge of the human relations aspects of the senior-subordinate workplace environment. Topics include: employee relation principles, problem solving and decision making, leadership techniques to develop employee morale, human values and attitudes, organizational communications, interpersonal communications, and employee conflict. *(Winter for Day and Evening Classes)*

MSD 102 - Legal Environment for Supervisors - Credit Hours: 5
Develops a working knowledge of the legal environment of business necessary for supervisors. Topics include: the legal system and public policy making, administrative law and business contracts, individual accountability and liability, debtor-creditor relationships, interpreting and understanding federal protective laws relating to consumers and competition, the Uniform Commercial Code, Title VII of the Civil Rights Acts, OSHA (Occupational Safety and Health Administration) regulations, and employee protective laws. *(Fall, Spring for Day and Evening Classes)*

MSD 103 - Leadership and Decision Making - Credit Hours: 5
Familiarizes the student with the principles and methods of sound leadership and decision making. Topics include: basic leadership principles and how to use them to solicit cooperation, use of leadership to develop the best possible senior-subordinate relationships, the various decision-making processes, the ability to make sound and timely decisions, leadership within the framework of the major functions of management, and delegation of authority and responsibility. *(Fall for Day and Evening Classes)*

MSD 104 - Personnel Administration for Supervisors - Credit Hours: 5
Acquaints the student with the authority, responsibility, functions, and problems of the personnel administrator. Topics include: the relationship between the personnel administrator and the line manager; analysis and development of job descriptions; interview of prospective employees; diagnosis of organizational health from the personnel perspective; laws and guidelines which dictate personnel actions; the basic concepts, guidelines, and responsibilities for training employees; and employability skills. *(Winter for Day and Evening Classes)*

MSD 106 - Counseling and Disciplinary Actions - Credit Hours: 5
Develops an understanding of the proper counseling and disciplinary techniques to use in various workplace situations. Topics include: the approaches to counseling and when each technique is appropriate; the use of good interpersonal communications to make counseling more effective; how to recognize when counseling is needed; and handling disciplinary problems in a fair and impartial manner, counseling for discipline, common causes of disciplinary problems, and positive discipline. *(Spring for Day Classes and Evening Classes)*

MSD 107 - Training and Performance Evaluation - Credit Hours: 5
Shows the student how to recognize when training is needed and how to properly use the performance evaluation system. Topics include: training principles; training techniques for maximum effectiveness; the supervisor's responsibilities for training; steps in training; the importance and impact of performance evaluation and use of the performance evaluation as a management tool; and fairness and equity in preparing the performance evaluation. *(Spring for Day and Evening Classes)*

MSD 108 - Management and Supervisory Seminar - Credit Hours: 5
Prerequisite: MSD 103
Encourages students to discuss their perception of management practices which have been studied during the Management/Supervisory Development program. Topics include: current issues and problems in management and supervision and state of the art management and supervision techniques. Guest speakers will contribute to the seminar. *(Summer for Day and Evening Classes)*

MSD 110 - Management and Supervision O.B.I. I - Credit Hours: 3
Introduces students to the application and reinforcement of management, supervision, and employability principles in an actual job placement or through a practicum experience. Students are acquainted with occupational responsibilities through realistic work situations and are provided with insights into management and supervisory applications on the job. Topics include problem solving, adaptability to the job setting, use of proper interpersonal skills, application of management and supervisory techniques, and professional development. The occupation-based instruction is implemented through the use of a practicum or internship and all of the following: written individualized training plans, written performance evaluation, and a required weekly seminar. *(Quarterly for Day and Evening Classes)*

MSD 113 - Ethical Management - Credit Hours: 5
Provides students with an overview of ethical management practices with emphasis on the axiology of contemporary managerial ethics. Topics include: the roots of ethics, traditional and contemporary definitions of good, personal values, moral development, ethics in the workplace, the ethical orientation of organizations, ethics and society, managerial ethics and the rule of law, managerial ethics and normative philosophy, managerial ethics and individual decision making, and managerial ethics and organizational design. *(Summer for Day and Evening Classes)*

MSD 151 - Personal Development for Supervisors - Credit Hours: 5
This course familiarizes the student with those factors that influence management, which are in addition to those covered in management program courses. Topics include: ethical management, individual behavior, group behavior, employee protective laws, and techniques of public speaking. *(Summer for Day and Evening Classes)*

MSD 154 - Organizational Communication and Information Technology - Credit Hours: 5
This course focuses on communication, supervision, and organizations in the age of technology. It builds on the basic computer skills introduced in SCT 100 using computer-based technology to develop skills in applying information technology. The student will create written, verbal, and electronic communication applied to supervisory functions in the workplace. Topics include word processing applications, spreadsheet applications, database applications, presentation technology and applications, graphical interface applications, interpersonal communications, group communications and team building, organizational communications, and global, intercultural, and ethical issues in communication. *(Summer for Day and Evening Classes)*

MSD 156 - Supervision in a Service Environment - Credit Hours: 5
This course focuses on supervision in the service sector with special emphasis on team building, quality management, and developing a customer focus. The challenge of providing world-class customer service is addressed through sections on principles of service industry supervision, career development, problem solving, stress management, and conflict resolution. Topics include: principles of service industry supervision, team building, customer service operations, TQM in a service environment, business software applications, communication in the service sector, introduction to information systems, selling principles and sales management, retail management, and legal issues in the service sector.

MSD 175 - Business Spanish - Credit Hours: 5
Introduces the vocabulary, sentence structure, and conversational skills needed to communicate in Spanish with co-workers in a business setting. Topics include the following: parts of speech, vocabulary, sentence structure, and common phrases in the workplace. *(Quarterly)*

NPT 112 - Medical Surgical Nursing Practicum I - Credit Hours: 7
Prerequisites: AHS 102, AHS 103, AHS 150, NSG 110; Corequisite: NSG 112
Practicum focuses on wellness and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include oncology; cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems and associated illness; pharmacology; nursing procedures/techniques; and utilizing the nursing process. *(Winter, Summer for Day Classes; Spring, Summer, Alternating Years for Evening Classes)*

NPT 113 - Medical Surgical Nursing Practicum II - Credit Hours: 7
Prerequisites: AHS 102, AHS 103, , AHS 104, AHS 150, NSG 110, NSG 112, NPT 112; Corequisite: NSG 113
Practicum focuses on wellness and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include musculoskeletal, neurological, oncology, fluids, electrolytes, integumentary, and sensory systems; mental health and associated illness; pharmacology and nursing procedures/techniques; and utilizing the nursing process. *(Fall, Spring for Day Classes; Winter, Alternating Classes for Evening Classes)*

NPT 212 - Pediatric Nursing Practicum - Credit Hours: 2
Prerequisites: AHS 102, AHS 103, AHS 150, NSG 110, NSG 112, NSG 113, NPT 112, NPT 113; Corequisites: NSG 212, NPT 213, NSG 213
Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the pediatric client; client care, treatments, pharmacology, and diet therapy of the pediatric client; growth and development; and standard precautions. *(Winter, Summer for Day Classes; Spring, Alternating Years)*

NPT 213 - Obstetrical Nursing Practicum - Credit Hours: 3
Prerequisites: AHS 102, AHS 103, AHS 150, NSG 110, NSG 112, NSG 113, NPT 112, NPT 113; Corequisites: NSG 212, NPT 212, NSG 213
Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the reproductive system, obstetric clients, and the newborn; client care, treatments, pharmacology, and diet therapy related to the reproductive system, obstetric clients, and the newborn; and standard precautions. *(Winter, Summer for Day Classes; Fall, Alternating Years)*

NPT 215 - Nursing Leadership Practicum - Credit Hours: 2
Prerequisites: AHS 102, AHS 104, NPT 112, NPT 113, NSG 112, NSG 113, NSG 110, AHS 103; Corequisites: NSG 215
Builds on the concepts presented in NPT 112, NPT 113, NSG 110, NSG 112, and NSG 113 and develops the skills necessary for successful performance in the job market. Topics include leadership skills, management skills, and employability skills. *(Winter, Summer for Day Classes; Spring, Alternating Years for Evening Classes)*

NSG 110 - Nursing Fundamentals - Credit Hours: 10
Prerequisites: AHS 101, AHS 103, AHS 104, AHS 150, BUS 212, ENG 111, MAT 101, PSY 191, SCT 100; Corequisite: AHS 102
Introduces the nursing process. Topics include orientation to the professions, ethics and law, community health, client care which is defined as using the nursing process, using critical thinking, and providing client education and includes principles and skills of nursing practice, documentation, and an introduction to physical assessment, geriatrics, customer/client relationships, and standard precautions. *(Fall, Spring for Day Classes; Winter, Alternating Years for Evening Classes)*

NSG 112 - Medical Surgical Nursing I - Credit Hours: 9
Prerequisites: AHS 102, AHS 103, AHS 150, NSG 110; Corequisites: NPT 112
Focuses on wellness and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems and associated illness; pharmacology; nursing procedures/techniques; and utilizing the nursing process. *(Winter, Summer for Day Classes; Spring, Alternating Years for Evening Classes)*

NSG 113 - Medical Surgical Nursing II - Credit Hours: 9
Prerequisites: AHS 102, AHS 103, NPT 112, NSG 110, NSG 112; Corequisite: NPT 113
Focuses on wellness and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. Topics include musculoskeletal, neurological, oncology, fluids, electrolytes, integumentary, and sensory systems; mental health and associated illness; pharmacology; nursing procedures/techniques; and utilizing the nursing process. *(Fall, Spring for Day Classes; Summer, Alternating Years for Evening Classes)*

NSG 212 - Pediatric Nursing - Credit Hours: 5
Prerequisites: AHS 102, AHS 103, NSG 110, NSG 112, NSG 113, NPT 112, NPT 113;
Corequisites: NPT 212, NPT 213, NSG 213
Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the pediatric client; client care, treatments, pharmacology, and diet therapy of the pediatric client; growth and development; and standard precautions. *(Winter, Summer for Day Classes; Fall, Alternating Years)*

NSG 213 - Obstetrical Nursing - Credit Hours: 5
Prerequisites: AHS 102, AHS 103, NSG 110, NSG 112, NSG 113, NPT 112, NPT 113;
Corequisites: NSG 212, NPT 212, NPT 213
Focuses on health management and maintenance and the prevention of illness, care of the individual as a whole, and deviations from the normal state of health. The definition of client care includes using the nursing process, performing assessments, using critical thinking, and providing client education. Topics include: health management and maintenance and prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the reproductive system, obstetric clients, and the newborn; client care, treatments, pharmacology, and diet therapy related to the reproductive system, obstetric clients, and the newborn; and standard precautions. *(Winter, Summer for Day Classes; Fall, Alternating Years)*

NSG 215 - Nursing Leadership - Credit Hours: 2
Prerequisites: NPT 112, NPT 113, NSG 112, NSG 113, NSG 110, AHS 102, AHS 103;
Corequisite: NPT 215
Builds on the concepts presented in Nursing Fundamentals (NSG 110) and Medical/Surgical Nursing I and II (NSG 112, NSG 113) and develops the skills necessary for successful performance in the job market. Topics include leadership skills, management skills, and employability skills. *(Winter, Summer for Day Classes; Spring for Evening Classes on Alternating Years)*

NUR 191 - Fundamentals of Nursing - Credit Hours: 6
Prerequisite: Admission to the nursing program
Corequisite: PSY 191, BIO 193, NUR 192
Foundations of nursing, critical thinking skills, effective communication skills, teaching/learning process, and attributes of a caring and compassionate technical nurse are presented. Concepts and methods of assisting culturally diverse individuals of all ages through the performance of skilled nursing care are introduced in the classroom and laboratory setting *(Fall for Day Classes)*

NUR 192 - Dosage Calculations - Credit Hours: 3
Prerequisite: Admission to the nursing program
Corequisites: NUR 191, PSY 191, BIO 193
This course introduces students to the application of basic mathematical concepts for medication calculation and techniques for the administration of medications. Classroom and laboratory experiences will be utilized. *(Fall for Day Classes)*

NUR 193 - Lifespan Nursing I - Credit Hours: 10
Prerequisites: NUR 191, NUR 192, BIO 193, PSY 191
Corequisites: BIO 194, PSY 291
This is the first in a three-quarter sequence of nursing courses that focuses on the comprehensive and technically skilled care of culturally diverse individuals of all ages experiencing operative and medical therapeutic self-care demands on the cardiac, musculoskeletal, respiratory, and gastrointestinal/biliary systems. The clinical component focuses on the expansion and application of the concepts presented in this course as well as in NUR 191 and NUR 192 to the care of patients in the acute, long-term, ambulatory, and/or community health care settings. *(Winter for Day Classes)*

NUR 194 - Lifespan Nursing Care II - Credit Hours: 10
Prerequisites: NUR 193, PSY 291, BIO 194
Corequisites: BIO 197, MAT 190/191/198
This is the second in a three-quarter sequence of nursing courses that focuses on the comprehensive and technically skilled care of the patient experiencing therapeutic self-care demands of the renal/urinary, hematological, integumentary, and endocrine system affecting all ages. The concepts of chronic illness and coping strategies are introduced. The clinical component offers the opportunity to apply therapeutic interventions and technologies to culturally diverse patients of all ages. *(Spring for Day Classes)*

NUR 291 - Nursing Care of the Childbearing Family - Credit Hours: 10
Prerequisites: NUR 194, BIO 197, MAT 190/191/198
Corequisites: ENG 191, SCT 100
This course provides the student with the theoretical knowledge, technologies, and skilled therapeutic nursing interventions related to the care of culturally diverse individuals and families experiencing self-care demands surrounding reproduction. Nursing management of persons with perinatal and gynecological self-care demands are explored. Contemporary social and ethical issues surrounding reproduction are examined. *(Fall for Day Classes)*

NUR 292 - Nursing to Promote Mental Health - Credit Hours: 10
Prerequisites: NUR 291, ENG 191, SCT 100
Corequisites: SPC 191, HUM 191
The focus of this course is on the application of knowledge, technologies, and skilled nursing interventions related to the care of culturally diverse individuals of all ages experiencing behavioral and psychosocial self-care demands. The importance and relevance of self-evaluation and awareness of one's own attitudes, values, and beliefs regarding psychological health and wellness are enforced. *(Winter for Day Classes)*

NUR 293 - Lifespan Nursing Care III - Credit Hours: 10
Prerequisites: NUR 292, SPC 191, HUM 191
Corequisite: NUR 294
This is the final course in the three-quarter sequence of courses that focuses on therapeutic self-care demands of culturally diverse individuals of all ages experiencing neurological, hepatic, and immunological insults. The student develops the ability to plan and deliver increasingly complex technologically skilled nursing care for critically ill and/or terminal patients. In the latter part of the clinical competent, students are assigned to an acute acre setting with a selected preceptor as a mentor. *(Spring for Day Classes)*

NUR 294 - Nursing Seminar - Credit Hours: 3
Prerequisites: NUR 292, SPC 191, HUM 191
Corequisite: NUR 293
This is a non-clinical course designed to facilitate the role transition from nursing student to beginning registered nurse generalist. Focus is placed on principles of management, leadership, delegation, and professional development. Included in this course is a content review in preparation for the NCLEX-RN. *(Spring for Day Classes)*

OTA 101 - Introduction to Occupational Therapy - Credit Hours: 3
Prerequisite: Program admission
This course explains the philosophy and history of occupational therapy and its relationship to other health care providers. Topics include foundations, history, and philosophical base of the profession and its personnel; role of OTA within health care team; role of OTA within various practice sites; definition of OT, introduction of AOTA code of ethics and standards of practice; introduction to OT theories, models of practice, and frames of reference; introduction to the OT Practice Framework domain and process; and role delineation. *(Fall for Day Classes)*

OTA 102 - Growth and Development - Credit Hours: 5
Prerequisites: BUS 212, OTA 101
Introduces the range of responses and reactions to human growth and the activities to enhance body functions. Topics include normal growth and development patterns across lifespan and occupational therapy principles which emphasize the use of purposeful activities and occupations to promote health and prevent disease. *(Winter for Day Classes)*

OTA 103 - Developmental Tasks - Credit Hours: 3
Prerequisite: OTA 101
Studies human tasks and activities across the developmental life span. Through learning and teaching occupations, students will utilize therapeutic self, group and dyadic interaction to analyze, grade and adapt purposeful activities and occupations to foster occupational performance within each stage of life. Topics include: uniform terminology, OT Practice framework, domain and process, performance and teaching of life tasks and activities; activity analysis; multicultural purposeful activities and occupations across the life span; and grading and adapting purposeful activities while implementing safety precautions. *(Winter for Day Classes)*

OTA 104 - Conditions in Occupational Therapy - Credit Hours: 5
Prerequisites: BIO 193, BIO 194, BUS 212
Overview of the etiology, clinical course, prognosis, and prevention of disease processes and traumatic injuries. Includes problems associated with individuals and family who have difficulty with social cultural expectations. Emphasis is on the effect of such condition on occupational performance and ways to promote health. *(Fall for Day Classes)*

OTA 105 - Analysis of Human Movement - Credit Hours: 6
Prerequisites: BIO 194, BUS 212; Corequisite: OTA 101
Introduces the phenomenon of human motion within the context of occupational performance. Topics include introduction to movement principles of gravity and basic biomechanics and their effect on movement, survey of skeletal system, articular system, muscular system, and nervous system, and instruction in goniometric measurements and muscle testing utilizing safety procedures within the framework of OT *(Winter for Day Classes)*

OTA 201 - Psychosocial Dysfunction - Credit Hours: 7
Prerequisite: PSY 201, All OTA Level 100 Courses; Corequisite: OTA 202
This course studies occupational therapy to service recipients for the prevention or remediation of psychosocial dysfunction or maintenance of mental health. Introduces the psychiatric disorders in different stages of human life. Encompasses OT concepts and principles in psychosocial dysfunctions which emphasize purposeful activity and role function. Topics include: psychosocial conditions commonly referred to occupational therapy; screening, evaluation, and standardized procedures for psychosocial OT; participation in the development of the OT intervention plan; collaboration with OTR on intervention implementation, reevaluation and intervention termination; psychosocial dysfunction intervention documentation procedure, and utilization of safety procedures during OT process. *(Spring for Day Classes)*

OTA 202 - Psychosocial Dysfunction Treatment Methods - Credit Hours: 3
Prerequisite: PSY 201, All OTA Level 100 Courses; Corequisite: OTA 201
Focuses on intervention of the psychiatric disorders occurring in different stages of human life through practical methods. Topics include: assistance with data collection and documentation which includes administration of standardized and non-standardized tests and assessment tools appropriate to the role of OTA in the practice area of psychosocial dysfunction; contribution to the formation of the OT goals and objectives on evaluation; use of self, dyadic, and group interaction; and provision of the therapeutic intervention related to occupational performance areas in psychosocial dysfunction. *(Spring for Day Classes)*

OTA 204 - Pediatric Issues - Credit Hours: 5
Prerequisites: All OTA Level 100 Courses
Covers childhood to early adulthood occupational therapy related issues, including developmental disabilities. Topics include participation in the screening, evaluation, intervention planning, therapeutic intervention, and discharge/follow-up with the pediatric population within the context of occupational performance in order to promote health and prevent disease. Emphasizes the importance of patient, family/significant other/caregiver education and documentation to ensure reimbursement in today's healthcare environment. *(Spring for Day Classes)*

OTA 206 - Physical Dysfunction - Credit Hours: 7
Prerequisites: All OTA Level 100 Courses; Corequisite: OTA 207
Studies occupational therapy to service recipients for the prevention or remediation of physical dysfunction or maintenance of quality of life. Introduces physical dysfunction in different stages of human life. Encompasses OT concepts and principles in physical dysfunctions which emphasize purposeful activity and role function. Topics include: physical conditions commonly referred to occupational therapy; screening, evaluation, and standardized procedures for physical dysfunction intervention; participation in the development of the OT intervention plan; collaboration with OTR on intervention, implementation, reevaluation and intervention termination; and physical dysfunction intervention documentation procedure. Utilization of safety procedures during OT process. *(Summer for Day Classes)*

OTA 207 - Physical Dysfunction Treatment Methods - Credit Hours: 3
Prerequisites: All OTA Level 100 Courses; Corequisite: OTA 206
Focuses on OT intervention and evaluation principles through practical applications. Topics include assistance with data collection and documentation which includes administration of standardized and non-standardized tests and assessment tools appropriate to the role of OTA in the practice area of physical dysfunction, contribution to the formation of the OT goals and objectives on evaluation; use of self, dyadic, and group interaction; and provision of the therapeutic intervention related to occupational performance areas in physical dysfunction. *(Summer for Day Classes)*

OTA 209 - Geriatric Issues - Credit Hours: 5
Prerequisites: All OTA Level 100 Courses
Covers occupational therapy related geriatric issues. Topics include participation in the screening, evaluation, intervention planning, therapeutic intervention, and discharge/follow-up with the geriatric population within the context of occupational performance in order to promote health and prevent disease. Emphasizes the importance of patient, family/significant other/caregiver education and documentation to ensure reimbursement in today's healthcare environment. *(Summer for Day Classes)*

OTA 212 - Occupational Therapy Trends & Issues - Credit Hours: 3
Prerequisites: All OTA Level 100 Courses, OTA 201, OTA 202, OTA 206, OTA 207
Teaches the roles and responsibilities in the administration of occupational therapy services. Topics include: assistance with the management of departmental operations including safety issues, inventory control, budgeting, scheduling of service recipients; development of values, attitudes, and behaviors congruent with OT standards and ethics; the role of OTA in occupational therapy; research publication; program evaluation; supervisory requirements; certification and licensure; reimbursement issues including documentation to insure accountability; personnel training and supervision; continued learning; professional behaviors of time management, personal goal setting and career development; and promotion of OT profession; and the professional obligation to provide fieldwork education to future OTA students. Resources for life long learning and professional support are provided and promoted including job finding skills such as interviewing and negotiation. Preparation for the national certification examination is provided as well as preparation for Level II fieldwork. *(Fall for Day Classes)*

OTA 213 - Therapeutic Adaptations - Credit Hours: 5
Prerequisites: All OTA Level 100 Courses, OTA 202, OTA 207
Occupational Therapy issues that promote human quality of life are addressed through class, demonstration, and practical activities. Topics include applications of therapeutic adaptation for accomplishment of purposeful activities including family training, community programming, basic orthotics and prosthetics, assistive devices, equipment, and other OT technologies utilizing safety procedures; and assist with planning and implementation of group and individual programs to promote health, function, and quality of life. *(Fall for Day Classes)*

OTA 221 - Level II Fieldwork-A - Credit Hours: 12
Prerequisites: All OTA Level 100 Courses, OTA 201, OTA 202, OTA 204, OTA 206, OTA 207, OTA 209, OTA 212, OTA 213
Provides the opportunity to practice occupational therapy for eight (8) weeks in a supervised health care facility. Topics include application of learned skills through presentation of a case study or special project, and supervised clinical applications of principles learned in the curriculum and appropriate to the learning needs of the student. *(Winter for Day Classes Only)*

OTA 222 - Level II Fieldwork-B - Credit Hours: 12
Prerequisites: All OTA Level 100 Courses, OTA 201, OTA 202, OTA 204, OTA 206, OTA 207, OTA 209, OTA 212, OTA 213
Provides the opportunity to practice occupational therapy for eight (8) weeks in a supervised health care facility. Topics include application of learned skills through presentation of a case study or special project, and supervised clinical applications of principles learned in the curriculum and appropriate to the learning needs of the student. *(Spring for Day Classes)*

PHL 103 - Introduction to Venipuncture - Credit Hours: 4
Prerequisite: AHS 101, BUS 212
Provides the student with the skills necessary to perform venipuncture and micropuncture procedures. Class includes an emphasis on sterile procedures, equipment terminology, and acceptable techniques and procedures. *(Winter for Evening Classes)*

PHL 105 - Clinical Practice - Credit Hours: 8
Prerequisite: PHL 102
Provides the student with the opportunity to practice clinical skills in a real world atmosphere. Students are assigned to an area health care facility where they work closely with licensed Phlebotomy Technicians. *(Spring for Evening Classes)*

PHR 101 - Pharmacy Technology Fundamentals - Credit Hours: 5
Prerequisites: AHS 101, AHS 102
Provides an overview of the Pharmacy Technology field and develops fundamental concepts and principles necessary for successful participation in the pharmacy field. Topics include: safety, orientation to the pharmacy technology field, health care organizational structure, pharmacy policies and procedures, cardiopulmonary resuscitation (CPR), infection control, quality control, ethics, laws, and definitions and terms. *(Winter for Evening Classes)*

PHR 102 - Principles of Dispensing Medications - Credit Hours: 6
Prerequisites: PHR 101
Introduces the student to principles of receiving, storing, and dispensing medications. Topics include: purchasing, packaging, and labeling drugs, dispensing responsibilities, distribution systems, documentation, inventory and filing systems, specific drugs, compounding, reference sources, pharmacy math, contamination control, storage and control, and pharmacy equipment. Class includes laboratory and clinical practice. *(Spring for Evening Classes)*

PSY 191 - Introductory Psychology - Credit Hours: 5
Prerequisites: Diploma ready in English and Reading
A survey of psychology which emphasizes the theoretical and methodological approaches important to psychologists. Topics include biological underpinnings; social environment; lifespan development; personality development and testing; abnormal behavior; and perception, learning, and intelligence. Minimum grade of "C" required to progress to PSY 201. *(Quarterly for Day, Evening, and Internet Classes)*

PSY 201 - Abnormal Psychology - Credit Hours: 5
Prerequisite: PSY 191 with a grade of "C" or better
An examination of the varieties of abnormal behavior, psychopathology, and mental illness. Treatment options, prevention, and assessment are discussed. The student will be taught how to classify disorders according to the DSM-IV. *(Winter for Day Classes, Fall and Spring for Internet Classes)*

PSY 291 - Human Growth and Development - Credit Hours: 5
Prerequisite: PSY 191
This course surveys the changes that occur during the human life cycle, beginning with conception and continuing through late adulthood and death. The scientific basis of our human growth and development and the interactive forces of nature and nurture are emphasized. Topics include physical, emotional, cognitive, and social development. *(Fall, Spring for Day Classes; Fall, Winter for Evening Classes; Quarterly for Internet Classes)*

RDG 095 - Developmental Reading I - Institutional Credit Hours: 5
Prerequisite: Placement by Diagnostic Testing
Provides instruction for the development of reading readiness with emphasis on primary and practical reading skills for the adult learner. Topics include phonics, structural analysis, basic sight words, sentence meaning, and survival reading. *(Quarterly for Day and Evening Classes)*

RDG 096 - Developmental Reading II - Institutional Credit Hours: 5
Prerequisite: RDG 095 or placement by diagnostic testing
Emphasizes the strengthening of fundamental reading competencies. Topics include vocabulary development, comprehension skills, study skills, and occupational/survival reading skills. *(Quarterly for Day and Evening Classes)*

RDG 097 - Developmental Reading III - Institutional Credit Hours: 5
Prerequisites: RDG 096 or placement by diagnostic testing
Emphasizes basic vocabulary and comprehension skills development. Topics include vocabulary development, comprehension skills development, critical reading skills, and study skills, test-taking techniques, and occupational reading *(Quarterly for Day and Evening Classes)*

RDG 098 - Developmental Reading IV - Institutional Credit Hours: 5
Prerequisite: RDG 097 or placement by diagnostic testing
Provides instruction in vocabulary and comprehension skills with emphasis on occupational applications. Topics include vocabulary development, comprehension skills development, critical reading skills, and study skills. *(Quarterly for Day and Evening Classes)*

SCT 100 - Introduction to Microcomputers - Credit Hours: 3
Introduces fundamental concepts and operations necessary to use microcomputers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, computer operating systems; data storage; file management; equipment care and operation; and an introduction to word processing, database, and spreadsheet applications, and networking. *(Quarterly for Day and Evening Classes)*

SOC 191 - Introduction to Sociology - Credit Hours: 5
Prerequisite/Corequisite: ENG 191
A general introduction to the sociological perspective, its origins, structure, change, and problems. Emphasis on multiculturalism, social class, power, conflict, and change, content of culture, the individual in society, and social interaction. *(Fall for Day Classes, Spring for Evening Classes)*

SPC 191 - Fundamentals of Speech - Credit Hours: 5
Prerequisite: ENG 191 with a grade of "C" or better
Introduces the fundamentals of oral communication. Topics include selection and organization of materials, preparation and delivery of individual and group presentations, and analysis of ideas presented by others. *(Quarterly for Day and Evening Classes)*

SUR 101 - Introduction to Surgical Technology - Credit Hours: 6
Prerequisites: MAT 100, PSY 191, ENG 111, SCT 100, AHS 104; Corequisite: AHS 101
Provides an overview of the surgical technology profession and develops the fundamental concepts and principles necessary to successful participation on a surgical team. Topics include: orientation to surgical technology, asepsis and the surgical environment, basic instrumentation and equipment, principles of the sterilization process, and application of sterilization principles. *(Winter for Day Classes)*

SUR 102 - Principles of Surgical Technology - Credit Hours: 5
Prerequisites: SUR 101, AHS 101; Corequisite: SUR 112
Introduces the student to patient care concepts and practices and provides continued study of surgical team participation. Topics include: basic care preparation and procedures, creation and maintenance of the sterile field, surgical supplies and accessory equipment, wound management, principles of surgery, minimal invasive surgery, and outpatient surgical procedures. *(Spring for Day Classes)*

SUR 108 - Surgical Microbiology - Credit Hours: 3
Prerequisites: AHS 101; AHS 104, MAT 101; Corequisites: AHS 109, SUR 101
Introduces the fundamentals of surgical microbiology. Topics include: historical development of microbiology, cell structure and theory, microbial function, human and pathogen relationships, infectious process, bloodborne and airborne pathogens, defense microorganisms, infection control, and principles of microbial control and destruction. *(Winter for Day Classes)*

SUR 109 - Surgical Patient Care - Credit Hours: 3
Prerequisites: MAT 100 or MAT 101, PSY 191, ENG 111, SCT 100, AHS 104; Corequisites: AHS 101, SUR 101, SUR 108
Introduces a complex diversity of surgical patients. Topics include: physiological diversities and needs, special patient needs, preoperative routine, intraoperative patient care, surgical emergencies, documentation and assessment skills, postoperative patient care, and care of the caregiver. *(Winter Quarter for Day Classes Only)*

SUR 110 - Surgical Pharmacology - Credit Hours: 3
Prerequisites: SUR 101, SUR 108, SUR 109; Corequisites: SUR 102
Introduces the fundamentals of intraoperative pharmacology, and emphasizes concepts of anesthesia administration. Topics include: weights and measurements, drug conversions, interpretation of drug orders, legal aspects of drug administration, intraoperative pharmacologic agents, and anesthesia fundamentals. *(Spring for Day Classes)*

SUR 112 - Introductory Surgical Practicum - Credit Hours: 7
Prerequisite: SUR 101, SUR 108, SUR 109; Corequisite: SUR 102, SUR 110
Orients students to the clinical environment and provides basic skills necessary to the surgical technologist. Topics are scrubbing, gowning, gloving, and draping; assistance with patient care; processing of instruments and supplies; creation and maintenance of a sterile field; basic instrumentation; and environmental sanitation. *(Spring for Day Classes)*

SUR 203 - Surgical Procedures I - Credit Hours: 6
Prerequisite: SUR 102, SUR 110, SUR 112; Corequisite: SUR 213
Introduces students to surgical procedures, incisions, wound closure, operative pathology, and common complications as applied to general and specialty surgery. Topics include: introduction to surgical procedures, general surgery, gynecological surgery, gastrointestinal surgery, genitourinary surgery, head and neck surgery, and plastic and reconstructive surgery. *(Summer for Day Classes)*

SUR 204 - Surgical Procedures II - Credit Hours: 6
Prerequisites: SUR 203, SUR 213; Corequisites: SUR 214, SUR 224
Continues the development of student knowledge and skills applicable to specialty surgery areas. Topics include: ophthalmic surgery, orthopedic surgery, thoracic surgery, vascular surgery, cardiovascular surgery, and neurosurgery. *(Fall for Day Classes)*

SUR 213 - Specialty Surgical Practicum - Credit Hours: 8
Prerequisites: SUR 102, SUR 112; Corequisite: SUR 203
Continues development of surgical team participation through clinical experience. Emphasis is placed on participation in routine procedures and procedures for general and specialty surgery. Topics include participation in general surgery, obstetrical and gynecological surgery, head and neck surgery, plastic and reconstructive surgery. *(Summer for Day Classes)*

SUR 214 - Advanced Specialty Surgical Practicum - Credit Hours: 8
Prerequisites: SUR 203, SUR 213; Corequisites: SUR 204, SUR 224
Provides opportunity for students to complete all required surgical technology procedures through participation in surgery in the hospital environment or simulations in the technical college. Topics include primary scrub on general and specialty surgical procedures; secondary scrub on expanded specialty procedures; plastic, thoracic, vascular, cardiovascular, and neurosurgery procedures; and completion of all required surgical technology clinical competencies. *(Fall for Day Classes)*

SUR 224 - Seminar In Surgical Technology - Credit Hours: 3
Prerequisites: SUR 203, SUR 213; Corequisite: SUR 214
Prepares students for entry into careers as surgical technologists and enables them to effectively review for the national certification examination. Topics include professional preparation, certification review, and test-taking skills. *(Fall for Day Classes)*

SUR 226 - Advanced Patient Care Principles - Credit Hours: 5
Prerequisites: AHS 104, BIO 193, BIO 194, BUS 212, SCT 100, ENG 191, HUM 191, MAT 191, PSY 191, SOC 191, SPC 191, SUR 204, SUR 214; Corequisite: SUR 228
Introduces the fundamentals of advanced surgical patient care concepts. Topics include: invasive patient care monitoring, advanced patient care assessment, phlebotomy, advanced intraoperative surgical skills, methods of drug administration, and leadership skills. *(Winter for Day Classes)*

SUR 228 - Advanced Specialty Surgical Practicum II - Credit Hours: 8
Prerequisites: AHS 104, BIO 193, BIO 194, BUS 212, SCT 100, ENG 191, HUM 191, MAT 191, PSY 191, SOC 191, SPC 191, SUR 204, SUR 214; Corequisite: SUR 226
Continued preparation of students through participation in surgical procedures in the hospital environment and introduces the role and advanced surgical skills of the first assistant. Topics include: application and demonstration of advanced patient care, assessment skills, application and demonstration of advanced intraoperative surgical skills, demonstration of professional communication, employability skills, and demonstration of leadership skills. *(Spring for Day Classes)*

WLD 100 - Introduction To Welding Technology - Credit Hours: 6
Prerequisite: Provisional Admission
Provides an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Topics include safety practices, hand tool and power machine operations, measurement, laboratory procedures, introduction to codes and standards, welding career potentials and certification eligibility; basic electricity and power sources, and metals characteristics, preparation, and testing procedures. Laboratory demonstrations parallel class work. *(Quarterly for Day and Evening Classes)*

WLD 101 - Oxyfuel Cutting - Credit Hours: 4
Prerequisite/Corequisites: WLD 100
Introduces fundamental principles, safety practices, equipment, and techniques necessary for metal heating and oxyfuel cutting. Topics include metal heating and cutting principles, safety procedures, use of oxyfuel cutting torch and flame cutting apparatus, metal heating and cutting techniques, cutting with manual and automatic cutting machines, and oxyfuel pipe cutting. Practice in the laboratory is provided. *(Quarterly for Day and Evening Classes)*

WLD 102 - Oxyacetylene Welding - Credit Hours: 1
Prerequisite/Corequisite: WLD 100
Introduces the fundamental theory, safety practices, equipment, and techniques necessary to perform basic oxyacetylene welding operations. Topics include welding theory, safety procedures and practices, proper use of gas cylinders, regulators, torches, tips, and other oxyacetylene welding apparatus, welding without filler rods, running beads with filler rods, joint design and making butt lap, and open buff joints, and brazing and soldering. Practice in the laboratory is provided. *(Quarterly for Day and Evening Classes)*

WLD 103 - Blueprint Reading I - Credit Hours: 3
Prerequisite: MAT 100 or MAT 101
Introduces the knowledge and skills necessary for reading welding and related blueprints and sketches. Topics include basic lines, sketches, basic views, joint design, and detail and assembly prints. *(Quarterly for Day and Evening Classes)*

WLD 104 - Shielded Metal Arc Welding I - Credit Hours: 6
Prerequisite/Corequisite: WLD 100
Introduces the fundamental theory, safety practices, equipment, and techniques required for shielded metal arc welding (SMAW) in the flat position. Qualification tests, flat position, are used in the evaluation of student progress toward making industrial standard welds, Topics include SMAW safety and health practices; SMAW theory; basic electrical principles; introduction to SMAW machines; equipment setup; identification and selections of low hydrogen, mild steel, and other common electrodes; joint design; selection and preparation of materials; and production of beads and joints in the flat position. *(Quarterly for Day and Evening Classes)*

WLD 105 - Shielded Metal Arc Welding II - Credit Hours: 6
Prerequisite: WLD 104
Introduces the fundamental theory, safety practices, equipment, and techniques required for shielded metal arc welding (SMAW) in the horizontal position. Qualification tests, horizontal position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices and procedures; production of welds; horizontal joints; and uses of low hydrogen, mild steel, and other common electrodes in horizontal position welds. *(Quarterly for Day and Evening Classes)*

WLD 106 - Shielded Metal Arc Welding III - Credit Hours: 6
Prerequisite: WLD 104
Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the vertical position. Qualification tests, vertical position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices, production of welds of uniform width and height; manipulation of electrodes to produce specification welds; vertical joints; and applications of low hydrogen, mild steel, and other common electrodes in vertical position welding. *(Quarterly for Day and Evening Classes)*

WLD - 107 Shielded Metal Arc Welding IV - Credit Hours. 6
Prerequisite: WLD 104
Introduces the major theory, safety practices, and techniques required for shielded metal arc welding (SMAW) in the overhead position. Qualification tests, overhead position, are used in the evaluation of student progress toward making industrial standard welds. Topics include SMAW safety and health practices; production of welds of uniform width and height; manipulation of electrodes to produce specification welds; overhead joints; and applications of low hydrogen, mild steel, and other common electrodes in overhead position welding. *(Quarterly for Day and Evening Classes)*

WLD 108 - Blueprint Reading II - Credit Hours: 3
Prerequisite: WLD 103
Emphasizes welding symbols and definitions through which the engineer or designer communicates with the welder. Welding symbols are considered an integral part of blueprint reading for the welder. Topics include weld symbols and abbreviations; basic joints for weldment fabrications; fillet welds, groove welds; back or backing and melt-thru welds; plug and slot welds; surfacing welds; flash welds and upset welds; and flange, spot, projection, and seam welds. *(Quarterly for Day and Evening Classes)*

WLD 109 - Gas Metal Arc Welding (GMAW/MIG) - Credit Hours: 6
Prerequisite: WLD 100
Provides knowledge of theory, safety practices, equipment, and techniques required for successful gas metal arc welding. Qualification tests, all positions, are used in the evaluating of student progress toward making industrial standard welds. Topics include GMAW safety and health practices, GMAW theory; machines and set-up; wire specifications; joint design; shielding gases; and production of GMAW beads, bead patterns, and joints in all positions. *(Quarterly for Day and Evening Classes)*

WLD 110 - Gas Tungsten Arc Welding (GTAW-TIG) - Credit Hours: 4
Prerequisite: WLD 100
Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful gas tungsten arc welding. Qualification tests, all positions, are used in evaluating of student progress toward making industry standard welds. Topics include safety and health practices, metals weldable using GTAW; shielded gases; metal cleaning procedures; GTAW machines and equipment setup; selection of filler rods; GTAW weld positions; and production of GTAW beads, bead patterns, and joints in all positions. *(Quarterly for Day and Evening Classes)*

WLD 112 - Preparation for Industrial Qualification - Credit Hours: 4
Prerequisites: WLD 101, WLD 105, WLD 106, WLD 107, WLD 108, WLD 109,WLD 110
Introduces industrial qualification methods, procedures and requirements. Students are prepared to meet the qualification criteria of selected national welding codes and stan-

dards. Topics include qualification test methods and procedures, codes and standards, fillet and groove weld test specimens, and national industrial student preparation for qualification and job entry. *(Quarterly for Day and Evening Classes)*

WLD 150 - Advanced Gas Tungsten Arc Welding - Credit Hours: 5
Prerequisite: WLD 110
Provides knowledge of theory, safety practices, inert gas, equipment, and techniques required for successful advanced gas tungsten arc welding (GTAW). Qualification tests, all positions, are used in the evaluation of student progress toward making advanced level industrial standard welds. Topics include: GTAW safety and health practices; shielding gases; metal cleaning procedures; GTAW machines and equipment set up; selection of filler rods; GTAW weld positions; and advanced production of GTAW beads, bead patterns, and joints.

WLD 152 - Pipe Welding - Credit Hours: 5
Prerequisites: WLD 107, WLD 108
Provides the opportunity to apply skills to pipe welding operations. Topics include: pipe welding, safety and health practices, pipe welding nomenclature, pipe layout and preparation, pipe joint assembly, horizontal welds on pipe (2G), vertical welds on pipe (5G), and welds on 45 degree angle pipe (6G).

WLD 160 - Welding and Joining Technology Half-Time Internship - Credit Hours: 5
Prerequisite: Completion of two full quarters with a GPA of 3.0 or better
Provides additional skills application in an industrial setting through a cooperative agreement among industry, the Welding Joining Technology program, and the student to furnish employment in a variety of welding occupations. Emphasizes student opportunities to practice welding skills in a "hands-on" situation and to work in an industrial environment under the supervision of a master welding technician. Supplements and complements the courses taught in the Welding and Joining Technology program. Topics include: application of welding and joining skills, appropriate employability skills, problem solving, adaptability to job equipment and technology, progressive productivity, and acceptable job performance.

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Please note: All phone numbers begin with (706) 764- and all e-mail addresses end in @nwtcollege.org.

Gabrielle Aborn - Instructor, Biology. A.B., University of Missouri - Columbia; M.S., University of Southern Mississippi. Office: 5200, Phone: 3798, e-mail: gaborn.

Tony Adams - Department Chair, Criminal Justice. B.S., M.P.A., Jacksonville State University. Office: 5100, Phone: 3815, e-mail: tadams.

Lamar Buckner - Department Chair, Air Conditioning Technology. Diploma, Walker Technical Institute; A.A.S., Dalton College; Georgia State Conditioned Air Contractor License (Unrestricted). Office: 304, Phone: 3588, e-mail: lbuckner.

Lisa Carruth - Department Chair, Occupational Therapy Assistant. B.S., Medical College of Georgia. Office: 5100, Phone: 3546, e-mail: lcarruth.

Abigail Carter - Instructor, Computer Information Systems. B.S. Auburn University; M.B.A. Brenau University; MCP, CCNA, CCAII. Office: 115, Phone: 3711, e-mail: acarter.

Anita Chastain - Department Chair, Business & Information Technology. B.A., Birmingham Southern College; M.B.A. University of Alabama at Birmingham. Office: 407, Phone: 3714, e-mail: achastai

Karen Cook - Department Chair, Early Childhood Education. B.S., University of Georgia; M.Ed., Berry College. Office: 106, Phone: 3618, e-mail: kcook.

Doug Cooper - Department Chair, Accounting. B.S., University of Chattanooga; M.B.A., University of Tennessee at Chattanooga. Office: 407, Phone: 3704, e-mail: dcooper.

Ronda Cox - Department Chair, English and Humanities. B.A., Lee College; M.A., University of Tennessee at Chattanooga. Office: 126, Phone: 3619, e-mail: rcox.

Marilyn Essex - Instructor, Occupational Therapy Assistant. A.A.S., New Hampshire Vocational/Technical College. Office: 5100, Phone: 3719, e-mail: messex.

Charles Estes - Instructor, Computer Information Systems. B.A., Western Maryland College; A.A.T., Northwestern Technical College; MCP, Certified NT Administrator. Office: 402, Phone: 3712, e-mail: cestes.

Michael Fennell - Department Chair, Drafting Technology. B.S., M.Ed., Georgia Southern University. Office: 112 A, Phone: 3574, e-mail: mfennell.

Louise Fuller - Instructor, Developmental/General Education (English): B.S., Auburn University; M.Ed., Cambridge College. Office: 126, Phone: 3694, e-mail: lfuller.

Joe Gardner - Department Chair, Management and Supervision. B.B.A, M.B.A., University of Miami. Office: 5100, Phone: 3545, e-mail: jgardner.

Denise Grant - Assistant Dean, Health, Human Services, and Nursing. R.N., Baroness Erlanger School of Nursing; B.S.N. Southern College; M.S.N., Andrews University; Nursing Licensure in Georgia and Tennessee. Office: 5200, Phone: 3532, e-mail: dgrant.

Carolyn Guinn - Instructor, Business Information Technology. B.S., Covenant College; Microsoft Office User Specialist. Office: 405, Phone: 3703, e-mail: cguinn.

Jan Hager - Instructor, Surgical Technology. National Certification of AORT. Office: 5100, Phone: 3721, e-mail: jhager.

Robert Hendrix - Instructor, Commercial Truck Driving. Office: Driving Range, Phone: 3698, e-mail: bhendrix.

Judy Hodge - Instructor, Business Information Technology. B.S., University of Tennessee at Chattanooga; Microsoft Office User Specialist. Office: 402, Phone: 3702, e-mail: jhodge.

Jerry Huggins - Instructor, Commercial Truck Driving. Office: Driving Range. Phone: 3698, e-mail: jhuggins.

Mary Jirsa - Department Chair, Surgical Technology. B.S.N., University of North Alabama. Office: 5200, Phone: 3544, e-mail: mjirsa.

Leigh Ann Johnston - Instructor, General Education (Speech). B.A., Louisiana State University; M.S., Radford University. Office: 126, Phone: 3708, e-mail: ljohnsto.

Derek Lance - Assistant Dean, General Education. B.S., Carson-Newman College; M.M., University of Tennessee; M.Ed., University of Tennessee at Chattanooga. Office: 105, Phone: (706) 639-2068, e-mail: dlance.

Jerry Langford - Instructor, Computer Information Systems. A.S., El Camino Junior College; B.S. California State University. Office: 207B, Phone: 3583, e-mail jlangfor.

Beverly Little - Department Chair, Cosmetology. State of Georgia Master Cosmetology License. Office: 209, Phone: 3584, e-mail: blittle.

Tammy Livingstone - Instructor, Cosmetology. Diploma, Walker Technical Institute; State of Georgia Master Cosmetology License. Office: 209, Phone: 3584, e-mail: tlivings.

David Matthews - Department Chair, Machine Tool Technology. Diploma, Walker Technical Institute; A.A.S., Dalton College. Office: 112B, Phone: 3693, e-mail: dmatthew.

Vicky McBryar - Department Chair, Licensed Practical Nursing. R.N., B.S.N., University of Tennessee. Office: Module 5, Phone: 3516, e-mail vmcbryar.

Cheryl Miller - Director, Associate Degree Nursing. B.S.N., Michigan State University; M.S.N., University of Alabama at Birmingham; Nursing Licensure in Alabama, Georgia, and Tennessee. Office: Module 5, Phone: 3796, e-mail: cmiller.

Lynnda Owens - Instructor, General Education (Math). B.A., Southern Missionary College; M.Ed., University of Tennessee; Ed.S., West Georgia College. Office: 105, Phone: 3814, e-mail: lowens.

Suzanne Pauley - Instructor, Practical Nursing. B.S.N., Jacksonville State University. Office: Module 5, Phone: 3531, e-mail: spauley.

Diane Peters - Instructor, Associate Degree Nursing. A.A.S., Dalton Junior College; B.S.N., Medical College of Georgia; M.S.N., Georgia State University; Nursing Licensure in Georgia and Tennessee. Office: Module 5, Phone: 3809, e-mail: dpeters.

Ginger Sabine - Assistant Dean, Business and Information Technology. B.S., University of South Alabama, M.S., Southern Polytechnical State University; Microsoft Office User Specialist. Office: 404, Phone: 3713, e-mail: gsabine.

Dustin Scott - Department Chair, Electrical Control Systems. Certificate, Diploma (2), A.A.T., Northwestern Technical College. Office: 313, Phone: 3598, e-mail: dscott.

David Sipsy - Instructor, Commercial Truck Driving. Office: Driving Range, Phone: 3698, e-mail: dsipsy.

Martha Smith - Instructor, Practical Nursing. A.S.N., Jefferson State Junior College; A.S., University of Alabama at Birmingham; Nursing Licensure in Georgia and Tennessee. Office: Module 5, Phone: 3811, e-mail: msmith.

Northwestern
Technical College

265 Bicentennial Trail
P.O. Box 569
Rock Spring, GA 30739
(706) 764-3510
(800) 735-5726
www.northwesterntech.edu