
NORTHWESTERN TECHNICAL COLLEGE 2008-2009 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 Science Degree, the Diploma, and the Technical Certificate.

AFFILIATIONS & ACCREDITATIONS

Accreditation Council for Occupational Therapy Education
 Alliance for Community College Innovation
 American Association of Medical Assistants Endowment
 American Library Association
 American Technical Education Association
 Associate Member, American Association of Community Colleges
 Business Council of Georgia
 CISCO Networking Academy
 Commission on Accreditation of Allied Health Education Programs
 CompTIA Education to Careers Program Member
 TCGS Technical Library Council
 Electronics Technicians Association
 Georgia Association of Collegiate Registrars and Admissions Officers
 Georgia Association of Student Financial Aid Administration
 Georgia Board of Examiners of Practical Nursing
 Georgia Board of Nursing
 Georgia Industrial Developers Association
 Georgia Library Association
 Georgia Motor Trucking Association
 Georgia Professional Standards Commission
 Liaison Council on Certification of Surgical Technologists
 Microsoft IT Academy
 Microsoft Developer Academic Alliance
 National Association for the Education of Young Children
 National Center for Occupational Education
 National League for Nursing
 National League for Nursing Accrediting Commission
 North Georgia Area Library Association

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Northwestern Technical College is an operating Unit of the Technical College System of Georgia 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 (currently known as the Technical College System of Georgia) 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 (now known as the Associate of Applied Science degree) in 1992. Walker Technical Institute was changed in 1988 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 23 degree options, along with 24 diplomas and 62 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.

The Technical College System of Georgia (TCSG) and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, disabled veteran, a veteran of the Vietnam Era, or citizenship status (except in those special circumstances permitted or mandated by law). This nondiscrimination policy encompasses the operation of all educational programs and activities including admissions policies, scholarship and loan programs, athletic and other TCSG administered programs, including any Workforce Investment Act of 1998 (WIA) Title I- financed programs. It also encompasses the employment of personnel and contracting for goods and services. The TCSG shall promote the realization of equal opportunity through a positive continuing program of specific practices designed to ensure the full realization of equal opportunity.

The college's Title IX Coordinator is located in Room 116A on the campus, and is available at phone number (706) 764-3597. The college's Section 504 Coordinator is located in Academic Affairs, room 211 and is available at (706)764-3593.

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GENERAL INFORMATION AND POLICIES

VISION

Northwestern Technical College is a higher education institution of the Technical College System of Georgia 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 his or her 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.

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 Nebraska Book Company 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 students 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 Affairs 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, major Chattanooga area television and radio stations, and posted on the NTC website. The college does not announce that it is open.

MAIN CAMPUS

The main campus consists of seven 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.

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 his or her 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.

Students who do not wish his or her directory information to be disclosed must file a written request with the Vice President of Student Affairs. 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 his or her 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 his or her 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 Affairs 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 Technical College System of Georgia, 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 his or her jobs to world-class standards.

GUARANTEE

The Technical College System of Georgia 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 drug.

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 Technical College System of Georgia 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 his or her 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 within 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 issued 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 his or her local sheriff's department or visit www.ganet.org/gbi.

STUDENT AFFAIRS

The Student Affairs 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 several times each quarter and at New Student 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 the services available to students. 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. Students are responsible for informing the coordinator of his or her special needs requirements.

CAREER SERVICES

The Career Services Office assists students in selecting appropriate employment upon completion of his or her program of study. Some assistance may be given for part-time work while attending school. Services are available for all current students and graduates. 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 his or her 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 from economically disadvantaged families, including foster children, individuals preparing for non-traditional fields, single parents, including single pregnant women, displaced homemakers, individuals with limited English proficiency 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 families (including foster children)/Developmental Services, Disability Services, Gender Equity Services, Single Parent (including pregnant women)/Displaced Homemaker Services, Financial Aid Services, Fatherhood Program, Community-Based Organization Services, Workforce Investment Act Services, Limited English Proficiency Services, Vocational Rehabilitation Services and Northwest Georgia Career Depot.

VETERAN'S EDUCATIONAL SERVICES

Northwestern Technical College assists armed services veterans and other students eligible for veteran's education benefits from the Veteran's 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 his or her 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 pre approved by the VA office; therefore, prior notification is imperative. All students receiving VA educational benefits are also required to report changes in course load, 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 CAMPUS MINISTRIES (BCM)

The Baptist Campus Ministries is a student-led organization that attempts to meet the spiritual needs of the college community. The Baptist Campus Ministries hosts a weekly non-denominational luncheon on the Northwestern Technical College campus. Meetings are held on Thursdays from 12 to 1 pm in the Faculty dining room located in the cafeteria. 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. There is no denominational or religious requirements.

GOAL PROGRAM

The Georgia Occupational Award for Leadership is recognition sponsored jointly at the state level by the Technical College System of Georgia 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, Chattooga County Chamber of Commerce, the Dade 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 most occupational programs on the campus of 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 (PBL)

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 the fall convention and spring state competitions each year.

NATIONAL TECHNICAL HONOR SOCIETY (NTHS)

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 or 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.

Note: Nominations are accepted during fall and spring quarters. Induction ceremonies are held twice yearly, and officers 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: Programs requiring 17 years of age: Associate Degree Nursing, Central Sterile Processing, Health Information Technology, Practical Nursing, Occupational Therapy Assistant, Patient Care Technician, Pharmacy Assistant, Pharmacy Technology, Phlebotomy Technician, and Surgical Technology. Programs requiring 18 years of age: Cardiovascular Technology, Commercial Truck Driving, Early Childhood Education, Emergency Medical Technician, Healthcare Supervisor, Practical Nursing to Associate Degree Nursing Transition, and Social Work Assistant. Programs requiring 19 years of age: Early Childhood Exceptionalities.

Education: Education requirements vary according to the particular program of study. All Associate of Applied Science, 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 or COMPASS scores, taken within three 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 TCSG. 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 TCSG 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, 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, Practical Nursing, LPN to ADN Transition, Medical Assistant, Occupational Therapy Assistant, Pharmacy Technology, 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.

Note: Test scores submitted must meet standard program requirements and must have been taken within the previous three 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 below:

Summer 2008:	June 4, 2008	Winter 2009:	December 1, 2008
Fall 2008:	September 2, 2008	Spring 2009:	March 9, 2009

ADMISSION STATUS

Admission to Northwestern Technical College will be in one of the following categories: Program Ready, Provisional, Learning Support, 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 his or her 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 learning support courses prior to gaining regular admission.

Learning Support: Placement test scores are below a designated level in reading, writing, math or algebra. Students scoring MAT 095, MAT 096, RDG 096 or ENG 096 will complete Learning Support courses before taking any occupational course in his or her program. An applicant who scores at the 095 level in English or Reading will be referred to Adult Literacy for individualized instruction at no charge before being formally admitted to the college. Once the applicant completes a study plan and retests with acceptable scores, he/she will be admitted to the college.

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 Technical College System of Georgia. 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 his or her 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 ASSET or COMPASS scores, taken within three years of the time of application; submit acceptable ACT or SAT scores taken within five years of application; or official documentation of a course grade of "C" or better in credit-level English and mathematics taken from an accredited college or postsecondary institution may be exempt from testing. SAT or ACT scores will not exempt the Elementary Algebra portion of the placement test.

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 and pay a \$15 application fee 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.

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 his or her 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 his or her program at Northwestern, however the typical minimum program length is listed in the Curriculum section of this catalog. The 50 percent requirement may be waived if the student completed a program for which standards have been implemented within the Technical College System of Georgia.

READMISSION OF FORMER STUDENTS

Students who are absent from Northwestern for one full year or more 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; and
- 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 his or her high school and at Northwestern Technical College. *Dual/Joint enrollment courses paid with the HOPE Grant count towards the limit of postsecondary hours paid for by the HOPE Program.*

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.
- 2) Complete a Northwestern Technical College Application for Admission.
- 3) Meet all testing requirements for Regular Admission status in chosen program.

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) Achieve program ready or provisional scores on the placement test.
- 4) Complete all general admission requirements.

Note: Joint Enrolled students who score program ready are eligible to apply for the HOPE Grant.

ACCEL PROGRAM

The ACCEL program is for high school juniors and seniors. Courses are available only in the areas of the core graduation requirements for college preparatory students: English (Composition & Rhetoric I & II, Technical Communications); Mathematics (Math Modeling, College Algebra, Pre-Calculus, and Elementary Statistics); Introductory Psychology; Introductory Sociology; Biology (Intro Microbiology, Anatomy & Physiology I & II); Physics; and Economics. Credit hours paid by the ACCEL program for the student will count towards the limit of postsecondary hours paid for by the HOPE program (www.GACollege411.org).

If a high school junior or senior believes he/she may be eligible for this program, the student will need to contact his/her high school guidance counselor for the application and any additional information needed. **This application has to be completed every quarter prior to the student's enrollment in the class.**

EARLY COLLEGE PROGRAM

The Early College Program at Northwestern Technical College is designed for current high school students. Students accepted into this program must be recommended by high school staff and must meet grade and high school credit requirements. Northwestern currently works with high schools in Catoosa and Walker counties which include: Lakeview-Fort Oglethorpe, Ringgold, Lafayette, and Ridgeland. Early College students have the opportunity to complete their academic high school coursework while working toward a certificate, diploma, or associate degree. Students choose from any Northwestern program within the health, industrial, human services, or business administrative technology fields. All classes in the Early College Program take place on the campus of Northwestern Technical College. The goal of the Early College program is to assist students in taking and passing the necessary courses to graduate with their class at the high school while completing or being close to completing their certificate, diploma, or degree. The Early College office is located in Room 124 and the Director can be reached at 706-764-3670.

TECH PREP/ARTICULATED PROGRAM

Tech Prep is a collaborative program between the Georgia Department of Education (GDOE) and the Technical College System of Georgia (TCSG) 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) Complete the admission requirements for a program of study at Northwestern within 18 months of the student's high school graduation.
- 2) Provide an official high school transcript to Northwestern indicating that the student followed a Tech Prep Program of Study and the transcript lists the articulated courses.
- 3) Provide an official completed Documentation of Articulated Credit form to Northwestern from the high school.
- 4) Earn an 85 percent minimum grade in the secondary course to be eligible for postsecondary credit in each of the articulated courses.
- 5) Score 75 percent or higher on a course-specific articulation exam.

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 Technical College System of Georgia that visa status is not a condition for admission to TCSG 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.
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- 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 \$36 per credit hour. A student registering for twelve (12) or more credit hours will be considered a full-time student and will pay \$432 for credit programs.

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.

INSTRUCTIONAL AND TECHNOLOGY SUPPORT FEE

All students pay a quarterly instructional and technology support fee of \$35. *Note: This fee is not covered by HOPE.*

LATE PAYMENT FEE

Students not paying for tuition and fees prior to the payment deadline will be charged a \$20 late 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

REPLACEMENT DIPLOMA

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

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.

REFUND POLICY

Northwestern Technical College can refund 100% of the tuition paid if the student formally withdraws within three instructional days from the first day of the quarter. No refunds will be issued after this date. Formal withdrawal before the first day of class will result in a 100% refund. Application fees are not refundable. The Business Office issues all refund checks by the third week of the quarter in which the student withdrew from classes.

PAYMENT PROCESSING

Northwestern Technical College accepts payments via cash, checks and credit cards. If payment is by check, then please be advised that we use Tiger Tranz as our check payment service and that all checks must have two telephone numbers and the driver's license number of the name on the check before we can process your payment. If this information is not on your check then your payment will not be accepted. This applies to information making your payments in person or by mail. If payment is by credit card, then please be advised that you can make this payment online or you can come by the business 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

To obtain a transcript, a request must be made in writing to the Registrar. Transcripts cannot be requested by telephone. There is not a charge for this service.

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 \$25. 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. If a student's check is non-sufficient then Tiger Tranz will be responsible for collection. 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), Academic Competitiveness Grant (ACG) Program 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. The Free Application for Federal Student Aid (FAFSA) must be completed each academic year to be considered for any assistance. The Financial Aid academic year begins Summer Quarter and the FAFSA applications are available in January, six months prior to the start of the summer term.

To apply for all aid, a student may complete the FAFSA online at www.fafsa.ed.gov. There is a link to the website on our website www.northwesterntech.edu. All returning students and beginning students must complete the Northwestern Technical College Certification, Authorization, and Agreement Form. This form can be found on our website or you can pick one up in the Financial Aid Office. All students must have a complete file for awarding of financial aid; therefore, students should allow themselves 4-6 weeks prior to the start of a term to complete the process. 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 his or her 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 Technical College uses the following standards to monitor students' progress toward his or her diploma, degree, or certificate. Satisfactory progress has two components, quality and quantity.

Quality (Grade Point Average Requirements) Students must maintain *cumulative grade point average* (GPA) of at least 2.0 to remain in good standing. Your Financial Aid GPA will be 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. This will allow you one quarter to increase the GPA to the satisfactory level. If, after one quarter, the GPA remains below 2.0, you will lose financial aid eligibility (placed on financial aid suspension) until bringing the cumulative GPA back to the 2.0 level. Students may receive aid while on probation, but will not receive aid while on suspension.

Quantity (Completion Rate) There are a maximum number of hours that students may attempt in pursuing his or her area of study. These hours are not to exceed 150% of the hours needed for graduation. For example, if a student's program of study is Management & Supervisory Development Diploma, which requires 84 credit hours for graduation, he or she is allowed to attempt a maximum of 126 hours and still maintain satisfactory progress. Since all of our programs have different graduation requirements, the longest program in each category (Certificate, Diploma, Associate Degree) will be used to calculate the maximum time frame. In order for students to graduate within this maximum "time frame" of hours, at the end of each quarter they are expected to have cumulatively completed at least 66.6% of his or her credit hours. For example, a student who attempts 15 credit hours his first quarter in school would be expected to successfully complete 10 hours for that quarter. If the student took 15 more credit hours the second quarter, he would be expected to have completed 20 hours at the end of the second quarter. A student who, at the end of any quarter, has not successfully completed 66.6% of 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 66.6% of his or her attempted credit hours. The following grades do not count toward successfully completing a course: "F"; "I" or incomplete; "WF," "W", "WP," or "WD" (withdrawals); or "IP" (in progress). Changing a course from credit to audit during the quarter gives the student a grade of "AU," which does not count as completing a course either. Any combination of these for all courses results in no progress, and will be calculated in the completion rate when computing your eligibility for financial aid eligibility. Repeat courses will be considered as any other class and both grades will count in the GPA. Grades of "F" and "WF" will be counted in computing your GPA. Again, all grades will be counted in computing the completion rate. Since an "IP" grade is received after the next term has started, your cumulative GPA will be

checked at that time. If a student does not meet the standards at that time, and has received funds for classes, the funds will have to be repaid by the student.

Learning Support courses are graded on an A* through F* scale. A grade of A*, B*, or C* will be considered satisfactory completion of a learning support course. A grade of D* or F* will be considered unsatisfactory. Grades received for learning support courses are included in the 66.6% hours attempted completion rate, but not in the GPA calculation.

Transfer students accepted by Northwestern Technical College, but not previously at NTC, will be classified as maintaining Satisfactory Academic Progress for the first quarter of attendance. After the first quarter, the student's grades will be measure in accordance with NTC's Satisfactory Academic requirements. Students who previously attended NTC, transferred to another school, then returned to NTC, will have all of his or her course work reviewed. If a student fails to meet the qualitative or quantitative standards at the end of a quarter, the student will be placed on Probation. The student will continue to receive Financial Aid while on probation. However, if the student does not meet the qualitative and quantitative standards by the end of the probationary quarter, he will be suspended. The student can continue taking courses while on suspension at the student's expense.

POLICY FOR REINSTATEMENT OF ELIGIBILITY FOR FINANCIAL AID

- 1) Students whose GPA is classified as unsatisfactory can reestablish eligibility when the cumulative GPA reaches 2.0. Students may re-establish good standing when they have cumulatively completed 66.6% of his or her attempted credit hours. It is the student's responsibility to report to the Financial Aid Office when they have met both requirements.
- 2) The above requirements to reestablish financial aid will be at the student's expense.

APPEAL PROCESS

Students will be notified of his or her failure to make satisfactory progress. If the student feels there were circumstances beyond his or her control that kept him or her from maintaining satisfactory progress, he or she may appeal in writing, by completing the Satisfactory Progress Appeal form (supporting documentation should be attached). The Financial Aid Director will refer the appeal to the Appeals Committee for review. If the student does not agree with the Committee's decision, an appeal can be made to the Vice President of Student Affairs, whose decision is final. Appeal forms are available from the financial aid office or at our web site. Students will be notified of the Committee's decision and/or Vice President's decision within two weeks of submitting the appeal.

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 you adjust your schedule within the first seven days of the quarter your HOPE book voucher may be adjusted. This could result in your owing back HOPE book funds. 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.

HOPE SCHOLARSHIP AND HOPE GRANT PROGRAMS

The state-funded program is available for most Georgia residents attending the college.

The HOPE Scholarship will pay tuition, \$46 of fees and up to \$100 on books for all eligible Georgia residents pursuing an Associate Degree program. To be eligible for the HOPE Scholarship program, a student will have to be a HOPE Scholar (1993 or later high school graduate with a 3.0 or better GPA or one who has attempted the 45th, 90th, or 135th hour with a 3.0 or better GPA). Learning Support grades (A*, B*, C*, D*, or F*) will be used in the HOPE Scholarship GPA calculation.

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 for all Scholars except part time scholars who have not reached the 45th hour. The part time scholar who has not reached the 45th hour will be checked at the end of the third term. Students who do not have a 3.0 GPA at any of these check points will lose the HOPE Scholarship.

The HOPE Grant will pay tuition, \$46 of fees, and up to \$100 on books for all eligible Georgia residents pursuing a diploma or certificate program. There will be a cap on the number of hours that students can receive the HOPE Grant and HOPE Scholarships. The cap for HOPE Grant is 95 quarter hours and the cap for HOPE Scholarship is 190 quarter hours.

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

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 \$4,731 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.

FEDERAL WORK-STUDY

This program allows students to work in on-campus jobs and earn money to pay his or her 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 his or her eligibility for Federal Work-Study will be determined from his or her Student Aid Report. Students should contact the Financial Aid Office for more details.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG)

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.

ACADEMIC COMPETITIVENESS GRANT (ACG) PROGRAM

The higher Education Reconciliation Act of 2005 (HERA) was signed into law February 8, 2006. The Act created a new grant program to be awarded to students beginning with the 2006-2007 award year. Some of the eligibility requirements include school certification that the recipients graduated high school after January 1, 2006 for the first year award and January 1, 2005 for the second year award. Other requirements include GPA of 3.00, enrollment in certain majors, student was not previously enrolled in a post secondary program (for first year recipients), and student's high school program was *rigorous* as defined by the Secretary of Education. The recipient must also be full-time and a Pell Grant recipient. An eligible student may receive an ACG of up to \$750 for the first academic year and up to \$1,300 for the second academic year. For more information on the ACG, please contact the Financial Aid Office.

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

Veteran's benefits are available to qualified veterans and dependents of deceased or disabled veterans. Applicants should contact the Financial Aid Officer of his or her local or regional Veteran's Administration office to obtain applications. Tuition refunds for students receiving veterans benefits through the Department of Veteran's Affairs will be prorated over the length of the course. The fees are non refundable.

WORKFORCE INVESTMENT ACT (WIA)

The Workforce Investment Act (WIA) is a federal program available 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 childcare 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**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 706-764-3785 for more information.

SOUTHERN APPALACHIAN EDUCATIONAL OPPORTUNITY OUTREACH CENTER

The Southern Appalachian Educational Opportunity Outreach Center 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, Catoosa, Dade, Hamilton, Bledsoe, Grundy, Sequatchie, and Marion counties. Please call for an appointment: 706-639-2065 or 423-425-1702.

SINGLE PARENT/DISPLACED HOMEMAKER PROGRAM (SP/DH)

The SP/DH program assists students and prospective students with life planning, career, and employment options. The program 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. Students can contact the SP/DH program at 706-764-3597 for more information.

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 the 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, 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 may take the test under certain conditions. Students under 16 years of age may not take the GED test or GED classes. 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 \$95 and photo identification is required. There will also be a \$50 processing fee for out of state students who request a Georgia diploma for employment or postsecondary education purposes in Georgia. You must register for a time to take the test in advance. Call 706-764-3521 for more details.

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 at Northwestern Technical College in Room 116. The hours of operation are 8:30 am - 4:00 pm. For more information, contact Melissa Tweed, Youth Services Program Assistant, at 706-764-3783, or e-mail her at mtweed@northwesterntech.edu.

ACADEMIC INFORMATION

GRADING SYSTEM

"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. Students are not 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.

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
TR	Transfer Credit	Not Computed
W	Withdrawal	Not Computed
WP	Withdrew Passing	Not Computed
WF	Withdrew Failing	Computed as an "F"
*	Learning Support Course	Not Computed

"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.

"TR" Transfer Credit: A grade of "TR" indicates that the student has successfully 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 the college between the fourth (4th) and seventh (7th) calendar day of the quarter.

"WP" Withdrew Passing: This grade signifies that a student withdrew from school voluntarily or was administratively withdrawn with a passing grade after the seventh (7th) calendar day of 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 seventh (7th) calendar day of and before the end of the quarter. It is computed as an "F" in the GPA.

"*" Learning Support Class: A letter grade followed by an asterisk (*) indicates a learning support course. This grade will not be calculated in the Academic GPA, but will be calculated in the student's financial aid GPA for the Hope Scholarship program.

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 "GPA Computation Example" for an example of how GPA is computed for one quarter.

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 below), 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.

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
<hr/>			
Total: 17			Total: 36
Total Points/Total Credit Hours = GPA			
36 Points/17 Hours = 2.11 Quarter GPA			

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. Grading scale is as follows: 3=Exceeds Expectations; 2=Meets Expectations; 1=Needs Improvement; and 0=Unacceptable.

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 or by e-mail.

GRADE APPEALS

A grade appeal must be filed with the Office of Academic Affairs 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 and the appeal form from the Office of Academic Affairs or from the NTC website under the Students and Alumni section.

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 his or her cumulative GPA.

ACADEMIC PROBATION AND SUSPENSION

Any student who earns a cumulative GPA of less than 2.0 will be placed on academic probation during the next quarter of enrollment. A student placed on academic probation must meet with his/her advisor to develop intervention strategies. A student will be suspended for one quarter if the cumulative 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 cumulative GPA of 2.0 or higher.

DROP/ADD PERIOD

A student may drop one or more courses without penalty within the first three instructional days of the quarter as long as the student remains enrolled in at least one course. A student may add one or more courses during the first seven calendar days, including holidays and weekends. To drop or add a class, the student must complete a Change of Registration form. This form can be obtained in the Records Office or printed from the Forms tab of the Student page of the NTC website. In the case of extenuating circumstances, students who need to change sections of a class after the drop/add period must obtain permission from the VP of Academic Affairs. If dropping or adding a class changes a student's status from full-time to part-time or part-time to full-time, the student must notify his/her Financial Aid Counselor.

WITHDRAWAL FROM COURSES

After the official drop/add period, a student who wishes to withdraw from a course(s), but does not want to *totally withdraw* from the college, must obtain a Change of Registration form available from the Records Office or found on the Forms tab of the Student page of the NTC website, and return the signed, completed form to the Records Office. The student will be assigned a grade of WP or WF for each course. A student who stops attending class but does not officially withdraw may receive a failing grade and/or loss of financial aid.

WITHDRAWAL FROM THE COLLEGE

To officially withdraw from the college, the student must obtain a withdrawal form 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.

PRESIDENT'S LIST FOR PART-TIME STUDENTS

Part-time students become eligible for the President's List when they have accumulated 15 credit hours of course work with a GPA of 3.8 or higher.

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 (obtained in the Registrar's Office or the Northwestern Technical College website) must be completed and submitted to the Registrar no later than the end of the quarter *prior to* the quarter of the student's anticipated graduation.
- 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 his or her 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. The 50% requirement may be waived if the student has completed a program for which standards have been implemented within the Technical College System of Georgia. 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 Technical College System of Georgia 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 his or her academic progress realistically. Before registering, students are required to meet with his or her advisor.

In order to ensure that students are taking the appropriate courses for his or her programs of study, all students should make an appointment to speak with his or her advisor during registration times.

With the advent of distance education via the Internet, some students may choose to take one or more classes online and never meet his or her 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 his or her specific attendance policy in his or her 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, music and art appreciation, social sciences, and basic computer skills that are required for a number of closely related program areas.

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 his or her individual interests and may be selected from non-required courses in the major program, in general education, or from other program areas.

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 or technical communications 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.

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.

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 from 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 his or her 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, such as experiential learning, 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. A student may not challenge a course that he/she has taken previously. The challenge exam must be taken before the first day of the class in which the student is enrolled. If the student misses his/her scheduled exam appointment, he/she must complete another application with payment and reschedule with the instructor. 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. Course substitution must be approved by the Advisor or the Academic Affairs Office.

LEARNING SUPPORT STUDIES

Because the college is dedicated to helping its students succeed, it places importance on testing, placement, and remediation of students. Learning Support courses in English, reading, and mathematics are required for students whose placement scores indicate that they 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 requirements for Program Ready status, the student will be granted either Learning Support Status or Provisional Status. Students whose test scores place them in any 095 or 096 course are assigned Learning Support status. Students whose test scores place them in a course at the 097, 098, or 099 level with no courses below 097 are granted Provisional status. Students placed in English 096 or 097; Reading 096 or 097; or Math 095, 096, or 097 will be required to take College Life 099.

Students with Learning Support status may not take any courses in their programs of study until all courses at the 095 or 096 level are completed. Students with Provisional status may take some courses in their programs of study at the suggestion of their advisors. Students are not eligible to graduate if Learning Support courses, including College Life, have not been completed. Students with Learning Support status may not be eligible for certain kinds of financial aid. Applicants without a high school diploma or GED or whose scores place them at the 095 level in English and Reading will be referred to Adult Education classes for remediation.

ELECTIVES

Elective hours allow the student to explore a field of interest or to enhance the program of study in which he or she is enrolled. Students may select elective hours from courses offered and approved by his or her advisor and within his or her specified program.

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.

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 policies.

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.

LIBRARY

The college's library is centrally located in Building 500 and is open to students, staff, and faculty and adult members of the public. The facility consists of a main reading room with seating for 75 people, a conference room for meetings and bibliographic instruction, a multimedia distribution system (MDS) control room and staff offices. The MDS allows instructors access to the library's video and DVD collection from his or her classroom computers and sends information to television monitors throughout the campus.

The library provides wireless internet access for students to use with their own laptop computers or with the 15 laptop computers available for checkout and use in the library. In addition, 26 desktop computers for online research and study are housed in the main reading room. The library contains a photocopier for student use.

The library's collection consists of approximately 13,000 items, including books, CD-ROMS, DVDs, videos, magazines and journals. Children's and young adult reading collections are maintained at the entrance to the library for use by Early Childhood Education students.

The library also provides a growing collection of digital resources. Library users, both on and off-campus, may obtain access to 22,000 eBooks and more than 7,000 journals, newspapers and other resources through Netlibrary and GALILEO (Georgia Library Learning Online).

GALILEO is a web-based virtual library with access to periodical databases and evaluated internet resources, including the following:

- 1) EBSCOHost
- 2) ProQuest
- 3) Lexis Nexus
- 4) Nursing, business and literary databases
- 5) Encyclopedias, dictionaries and recommended websites.

A password is required for off-campus access to GALILEO. The password changes before the beginning of each quarter and may be obtained from library staff or instructors. Online and distance education students may obtain the password on Blackboard, by calling the library (706)764-3533 or by emailing kkwiatkowski@northwesterntech.edu. Distribution of the password is restricted to current students, faculty and staff.

Links to library resources and other information are provided on the library's website www.northwesterntech.edu/ntdlibrary/library.html. An online catalog located on the website may be used for finding library resources, which are organized by the Library of Congress classification system.

Resources unavailable from Northwestern's library may be obtained through resource sharing agreements with Kresge Memorial Library at Covenant College, Cherokee Regional Library System, Dalton College and the Catoosa County Library System. The library also provides materials through an Interlibrary Loan (ILL) program that permits borrowing from other libraries worldwide. ILL is free from Georgia libraries; fees may be charged for out-of-state loans.

Two full-time professional librarians, one full-time technical assistant, one part-time technical assistant and student workers staff the library. The library is open during academic quarters from 8 a.m. to 9 p.m. Monday through Thursday and 8 a.m. to 4 p.m. Friday. When classes are not in session, the library is open from 8 a.m. to 4:30 p.m. Monday through Thursday and 8 a.m. to 4 p.m. Friday.

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 of Economic Development for more information or to discuss specific industry training needs.

Retraining Tax Credit: Northwestern Technical College is the Technical College system of Georgia 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 his or her 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, management development, career development, and personal enrichment training are not included.

ACADEMIC CALENDAR 2008-2009

Summer Quarter 2008

Application and Testing Deadline	June 4, 2008
New Student Registration	June 10, 2008
Last Day for Late Registration	June 10, 2008
Payment Deadline for Tuition and Fees	June 12, 2008
First Day of Class	July 7, 2008
Last Day to Drop a Class	July 9, 2008
Last Day for 100% Refund	July 9, 2008
Last Day to Add a Class	July 13, 2008
Mid-Term	August 11, 2008
Early Registration (Fall)	August 11- 15, 2008
Holiday	September 1, 2008
New Student Registration (Fall)	September 8, 2008
Final Examination Period	September 17-18, 2008
Faculty In-Service	September 19, 2008

Fall Quarter 2008

Application and Testing Deadline	September 2, 2008
New Student Registration	September 8, 2008
Last Day for Late Registration	September 8, 2008
Payment Deadline for Tuition and Fees	September 18, 2008
First Day of Class	October 1, 2008
Last Day to Drop a Class	October 3, 2008
Last Day for 100% Refund	October 3, 2008
Last Day to Add a Class	October 7, 2008
Mid-Term	November 5, 2008
Early Registration (Winter)	November 10-14, 2008
No Classes	November 26, 2008
Holiday	November 27-28, 2008
New Student Registration (Winter)	December 8, 2008
Final Examination Period	December 16-17, 2008
School Closed	December 25, 2008 - January 1, 2009

ACADEMIC CALENDAR 2008-2009

Winter Quarter 2009

Application and Testing Deadline	December 1, 2008
New Student Registration	December 8, 2008
Last Day for Late Registration	December 8, 2008
Payment Deadline for Tuition and Fees	December 17, 2008
First Day of Class	January 7, 2009
Last Day to Drop a Class	January 9, 2009
Last Day for 100% Refund	January 9, 2009
Last Day to Add a Class	January 13, 2009
Holiday	January 19, 2009
Mid-Term	February 12, 2009
Early Registration (Spring)	February 16-20, 2009
New Student Registration (Spring)	March 16, 2009
Faculty In-Service	March 20, 2009
Final Examination Period	March 24-25, 2009

Spring Quarter 2009

Application and Testing Deadline	March 9, 2009
New Student Registration	March 16, 2009
Last Day for Late Registration	March 16, 2009
Payment Deadline for Tuition and Fees	March 25, 2009
First Day of Class	April 6, 2009
Last Day to Drop a Class	April 8, 2009
Last Day for 100% Refund	April 8, 2009
Last Day to Add a Class	April 12, 2009
Mid-Term	May 11, 2009
Early Registration (Summer)	May 11-15, 2009
Holiday	May 25, 2009
New Student Registration (Summer)	June 8, 2009
Final Examination Period	June 17-18, 2009
Graduation	June 19, 2009

PROGRAMS OF STUDY

ASSOCIATE OF APPLIED SCIENCE DEGREE PROGRAMS:

Associate Degree Nursing	Early Childhood Care/Education
Nursing LPN to ADN Transition	Electronics Technology:
Accounting	Computer Servicing
Business Administrative Technology	Industrial Control
Automotive Technology	Health Information Technology
Cardiovascular Technology	Management & Supervisory
Computer Information Systems:	Development
Computer Support Specialist	Management & Supervisory
Internet Specialist-Web Design	Development: Banking
Networking Specialist	Medical Assisting
Criminal Justice Technology	Occupational Therapy Assistant
Drafting Technology	Pharmacy Technology
Mechanical Drafting	Social Work Assistant
Architectural Drafting	Surgical Technology

DIPLOMA PROGRAMS:

Accounting	Electrical Control Systems
Air Conditioning Technology	Electronic Fundamentals
Automotive Technology	Electronic Technology:
Business Administrative Technology:	Computer Servicing
Business Office Specialist	Industrial Control
Medical Office Specialist	Machine Tool Technology
Computer Information Systems:	Management & Supervisory
Computer Support Specialist	Development
Internet Specialist-Web Design	Medical Assisting
Networking Specialist	Practical Nursing
Cosmetology	Pharmacy Technology
Criminal Justice Technology	Social Work Assistant
Drafting Technology	Surgical Technology
Early Childhood Care/Education	Welding & Joining Technology

PROGRAMS OF STUDY (CONTINUED)
CERTIFICATE PROGRAMS:

Administrative Support Assistant	Early Childhood Paraprofessional Specialization
Advanced Mechanical Drafting	Early Childhood Program Administration
Automotive Brake Technician	Emergency Medical Technician
Automotive Electrical/Electronic Systems Technician	Flat Shielded Metal ARC Welder
Automotive Engine Performance Technician	Gas Metal ARC Welder Fabricator
Automotive Engine Repair Technician	Gas Tungsten ARC Welder Fabricator
Automotive Heating/Air Conditioning Technician	Healthcare Supervisor
Automotive Manual Drive Train/ Axle Repair Technician	Help Desk Specialist
Automotive Suspension/Steering Technician	Industrial Electrician
Automotive Automatic Transmission/ Transaxle Technician	Industrial Motor Control Technician
Banking and Finance Assistant	Industrial Systems Technician
Bookkeeping Specialist	Lathe Operator
CAD Operator	Linux/Unix System Administrator
CISCO Network Specialist	Management/Leadership Specialist
CNC Specialist	Microsoft Excel Application Specialist
Central Sterile Processing Technician	Medical Coding
Certified Manufacturing Specialist	Medical Language Specialist
Child Development Associate	Medical Office Assistant
Commercial Truck Driving	Mill Operator
Computer Applications Specialist	Nail Technician
Computer Forensics and Investigation Specialist	Network Security + Network Security Specialist
CompTIA A+ Certified Technician Preparation	Organizational Leadership
Crime Scene Investigation	Overhead Shielded Metal ARC Welding
Criminal Justice Records Technician	PC Repair and Network Technician
Data Management	Programmable Control Technician I
Drafting Residential Design	Patient Care Technician
Early Childhood Exceptionalities	Pharmacy Assistant
	Phlebotomy Technician
	Shampoo Technician
	Supervisor/Management Specialist
	Team Leader
	Technical Communication Specialist
	Technical Management Specialist
	Website Designer

BUSINESS AND INFORMATION TECHNOLOGY

**PROGRAM DESCRIPTIONS AND
REQUIREMENTS**

ACCOUNTING: AAS 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 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 150	Cost Accounting	6
ACC 151	Individual Tax Accounting	4
ACC 152	Payroll Accounting	4
ACC 158	Managerial Accounting	6
BUS 101	Document Processing	6
BUS 108	Word Processing	7
BUS 151	Introduction to Business	5
ACC 106	Accounting Spreadsheet Fundamentals	3
ACC 160	Advanced Accounting Spreadsheet Applications	6
SCT 100	Introduction to Microcomputers	3
	Electives	5
Total Credit Hours Required for Graduation:		106

ADMINISTRATIVE SUPPORT ASSISTANT: CERTIFICATE
(FORMERLY OFFICE MANAGEMENT ASSISTANT)

The Administrative Support Assistant Certificate prepares individuals to provide administrative support under the supervision of office managers, executive assistants, and other office personnel. Courses include: Introduction to microcomputers, word processing, office procedures, and accounting.

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.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing	6
BUS 106	Office Procedures	5
BUS 108	Word Processing	5
BUS 208	Office Accounting	6
	OR	
ACC 101	Principles of Accounting I	6
	Electives (See advisor for approved list)	6
Total Credit Hours Required for Graduation:		31

BANKING AND FINANCE ASSISTANT: CERTIFICATE

The Banking and Finance Assistant Certificate is designed to provide skills training to individuals interested in banking or a related career. The certificate will provide the students with a general overview of the banking business and basic accounting skills. It will also provide basic computer competency skills along with additional spreadsheet experience, while integrating mathematics and accounting skills into banking operations.

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.

Occupational Curriculum		Credit Hours
ACC 101	Principles of Accounting I	6
ACC 106	Accounting Spreadsheet Applications	3
BAF 100	Introduction to Banking and Finance	5
MAT 1011	Business Mathematics	5
	OR	
MAT 1012	Foundations of Mathematics	5
SCT 100	Introduction to Microcomputers	3
	Electives (See advisor for approved list)	3
Total Credits Required for Graduation:		25

BOOKKEEPING SPECIALIST: CERTIFICATE

The Bookkeeping Specialist Certificate provides an early exit point for accounting students while maintaining his or her career path to the diploma or associate degree. The skill level provides students the opportunity to gain employment quickly while continuing his or her 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.

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 1011	Business Math	5
	OR	
MAT 1012	Foundations of Mathematics	5
SCT 100	Introduction to Microcomputers	3
Total Credits Required for Graduation:		27

BUSINESS ADMINISTRATIVE TECHNOLOGY: AAS DEGREE

The Business Administrative Technology Degree program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplace. The Business Administrative Technology program provides learning opportunities, which introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. The program emphasizes the use of word processing, spreadsheet, presentation, and database applications software. Students are also introduced to accounting fundamentals, electronic communications, internet research, and electronic file management. The program includes instruction in effective communication skills and technology innovations for the office. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the area of administrative technology. Graduates of the program receive a Business Administrative Technology, Associate of Applied Science 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.

General Core Curriculum		Credit Hours: 25
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
MAT 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 70
SCT 100	Introduction to Microcomputers	3
ACC 101	Principles of Accounting I	6
ACC 102	Principles of Accounting II	6
BUS 101	Document Processing	6
BUS 105	Database Applications	3
BUS 106	Office Procedures	5
BUS 108	Word Processing	5
BUS 109	Applied Office Procedures	5
BUS 148	Business Document Proofreading & Editing	3
BUS 160	Electronic Communication Applications	5
BUS 201	Advanced Word Processing	5
BUS 202	Spreadsheet Applications	3
BUS 261	Presentation Applications	3
	Electives (See advisor for approved list)	12
Total Credit Hours Required for Graduation:		95

BUSINESS ADMINISTRATIVE TECHNOLOGY: DIPLOMA WITH BUSINESS ADMINISTRATIVE ASSISTANT SPECIALIZATION

The Business Administrative Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the areas of business administration and business technology. Graduates of the program receive a Business Administrative Technology diploma with a specialty in Business Administrative Assistant.

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.

General Core Curriculum		Credit Hours: 18
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 1011	Business Mathematics	5
	OR	
MAT 1012	Foundations of Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3
 Occupational Curriculum		 Credit Hours: 20
BUS 101	Document Processing	6
BUS 108	Word Processing	5
BUS 208	Office Accounting	6
	OR	
ACC 101	Principles of Accounting I	6
SCT 100	Introduction to Microcomputers	3
 Business Administrative Assistant Curriculum		 Credit Hours: 36
BUS 106	Office Procedures	5
BUS 109	Applied Office Procedures	5
BUS 148	Business Document Proofreading & Editing	3
BUS 160	Electronic Communication Applications	5
BUS 202	Spreadsheet Applications	3
BUS 261	Presentation Applications	3
	Electives (See advisor for approved list)	12
 Total Credit Hours Required for Graduation:		 74

CURRICULUM REVISED EFFECTIVE FALL QUARTER 2008

BUSINESS ADMINISTRATIVE TECHNOLOGY: DIPLOMA WITH MEDICAL ADMINISTRATIVE ASSISTANT SPECIALIZATION

The Business Administrative Technology program is designed to prepare graduates for employment in a variety of positions in today's technology-driven workplaces. The program provides learning opportunities that introduce, develop, and reinforce academic and occupational knowledge, skills, and attitudes required for job acquisition, retention, and advancement. Additionally, the program provides opportunities to upgrade present knowledge and skills or to retrain in the areas of business administration and business technology. Graduates of the program receive a Business Administrative Technology diploma with a specialty in Medical Administrative Assistant.

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.

General Core Curriculum		Credit Hours: 18
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 1011	Business Mathematics	5
	OR	
MAT 1012	Foundations of Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3
 Occupational Curriculum		 Credit Hours: 20
BUS 101	Document Processing	6
BUS 108	Word Processing	5
BUS 208	Office Accounting	6
	OR	
ACC 101	Principles of Accounting I	6
SCT 100	Introduction to Microcomputers	3
 Medical Administrative Assistant Curriculum		 Credit Hours: 38
BUS 148	Business Document Proofreading & Editing	3
BUS 211	Medical Terminology	3
BUS 212	Anatomy and Terminology	5
	OR	
AHS 101	Anatomy and Physiology	5
BUS 216	Medical Administrative Procedures	5
BUS 226	Medical Billing/Coding/Insurance	5
MAS 112	Human Diseases	5
	Electives (See advisor for approved list)	12
 Total Credit Hours Required for Graduation:		 76

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.

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 NETWORK 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 AAS 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.

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 A+ CERTIFIED TECHNICIAN PREPARATION: 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 a 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; 3) Completion of general admission.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to the Microcomputer	3
CIS 103	Operation Systems	6
CIS 106	Computer Concepts	5
CIS 122	Micro Installation and Maintenance	7
CIS XXX	Electives (See advisor for approved list)	6
Total Credit Hours Required for Graduation:		27

COMPUTER APPLICATIONS SPECIALIST: CERTIFICATE

Computer Applications Specialist certificate is a two quarter program of study designed to prepare skillful users of office computers. Students in this program learn to utilize a variety of application software. Graduates of this certificate program have experience and are knowledgeable in the Microsoft Office Suite of products including Word, Excel, Power Point, in addition to the Windows Operating System.

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.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
CIS 155	Microsoft Windows	3
CIS 127	Comprehensive Word Processing and Presentation Graphics	6
CIS 2228	Comprehensive Spreadsheet Techniques	6
Total Credit Hours Required for Graduation:		18

**COMPUTER FORENSICS AND INVESTIGATION
SPECIALIST: CERTIFICATE**

The Computer Forensics and Investigation program is designed to provide academic and professional training to students in detecting and investigating computer related criminal activity and/or unauthorized use. The student will develop knowledge and skills in technical evidence identification, investigative computer systems, information security, search and seizure, and the administration of criminal sanctions.

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.

Occupational Curriculum		Credit Hours
CIS 103	Operating System Concepts	6
CIS 106	Computer Concepts	5
CIS 1115	Information Security Fundamentals	5
CIS 1116	Security Policies and Procedures	5
CIS 1120	Computer Forensics and Disaster Recovery	6
CRJ 121	Introduction to Private Security	5
CRJ 123	Computer Security/Corporate Fraud	5
CRJ 162	Methods of Criminal Investigation	5
Total Credit Hours Required for Graduation:		42

COMPUTER SUPPORT SPECIALIST: AAS DEGREE

Computer support specialist provide technical assistance, support, and advice to customers and other users. This occupational group includes technical support specialists and help-desk technicians. These troubleshooters interpret problems and provide technical support for hardware, software, and systems. They answer telephone calls; analyze problems using automated diagnostic programs, and resolve recurrent difficulties. Support specialists may work either within a company that uses computer systems or directly for a computer hardware or software vendor.

Increasingly, these specialists work for help-desk or support services firms, where they provide computer support to clients on a contract basis. Graduates have the knowledge and skills necessary to install and maintain personal computer hardware and software in a variety of settings. Graduates are knowledgeable in application software and trained in evaluating new hardware and software. 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 86
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 2321	Introduction to LAN and WAN	6
	OR	
CIS 1140	Networking Fundamentals	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 127	Comprehensive Word Processing and Presentation Graphics	6
CIS 2228	Comprehensive Spreadsheet Techniques	6
CIS 2229	Comprehensive Database Techniques	6
CIS 1131	Helpdesk Concepts	6
CIS 1132	Customer Service Skills for IT professionals	6
CIS XXX	Language Elective	7
CIS XXX	Electives(See advisor for approved list)	11
Total Credit Hours Required for Graduation:		116

COMPUTER SUPPORT SPECIALIST: DIPLOMA

The Computer Support specialist diploma program provides training for entry-level positions as computer support specialists, technical support specialists, and help-desk technicians. Students learn the skills necessary to provide technical assistance, support, and advice to computer users. Students are taught customer service skills and are exposed to new and emerging technology. Computer support specialists troubleshoot and interpret problems and provide technical support for hardware, software, and systems.

Computer support specialists answer telephone calls; analyze problems using automatic diagnostic programs. 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. This program is also offered online.

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.

General Core Curriculum		Credit Hours: 18
ENG 101	English	5
	OR	
ENG 111	Business English	5
ENG 102	Technical Writing	5
	OR	
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 1013	Algebraic Concepts	5
Occupational Curriculum		Credit Hours: 78
CIS 103	Operating Systems Concepts	6
CIS 105	Program Design and Development	5
CIS 106	Computer Concepts	5
SCT 100	Introduction to Microcomputers	3
CIS 1140	Networking Fundamentals	6
	OR	
CIS 2321	Introduction to LAN and WAN	6
CIS 122	Microcomputer Installation and Maintenance	7
CIS 1131	Helpdesk Concepts	6
CIS 1132	Customer Service Skills for IT Professionals	6
CIS 127	Comprehensive Word Processing and Presentation Graphics	6
CIS 2228	Comprehensive Spreadsheet Techniques	6
CIS 2229	Comprehensive Database Techniques	6
CIS XXX	Language Elective	7
CIS XXX	Electives(See advisor for approved list)	3
Total Credit Hours Required for Graduation:		96

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 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.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing	6
BUS 108	Word Processing	7
CIS 155	Microsoft Windows	3
CIS 2228	Comprehensive Spreadsheet Techniques	6
CIS 2229	Comprehensive Database Techniques	6
CIS 222	Microsoft Office Specialist Certification: Excel	3
Total Credit Hours Required for Graduation:		34

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.

This program is no longer accepting new students.

Occupational Curriculum		Credit Hours
BUS 101	Document Processing	6
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	Comprehensive Database Techniques	6
BUS 202	Spreadsheet Fundamentals	3
	OR	
CIS 2228	Comprehensive Spreadsheet Techniques	6
CIS 1140	Networking Fundamentals	6
	OR	
CIS 155	Working with Microsoft Windows Software	3
Total Credit Hours Required to Graduate:		38-47

GENERAL OFFICE ASSISTANT: CERTIFICATE

The General Office Assistant program prepares students for entry-level positions in business office administration. Courses will cover word processing, keyboarding, English and office procedures.

This program is no longer accepting new students.

Occupational Curriculum		Credit Hours
BUS 101	Document Processing	6
BUS 106	Office Procedures	5
BUS 108	Word Processing	5
SCT 100	Introduction to Microcomputers	3
	Electives (See advisor for approved list)	3
Total Credit Hours Required to Graduate:		22

**HEALTHCARE SUPERVISOR MANAGEMENT
DEVELOPMENT: CERTIFICATE**

The Healthcare Supervisor Management Development Certificate prepares experienced workers and supervisor/managers to be better supervisors and leaders in health care. This certificate provides learning opportunities which introduce, develop, and reinforce academic and occupational knowledge, skills and attitudes required for job acquisition, retention, and advancement. This certificate is geared especially to understand the dynamics of working with people in a supportive managerial role to retain workers.

Admission Requirements for Certificate: Attainment of 18 or more years of age; achievement of program ready or provisional scores on the placement test (ASSET or COMPASS), provide satisfactory ACT or SAT scores taken in the last (5) years or college transfer credits; provide an official high school or GED diploma; requires a healthcare certification and/or current employment in a healthcare facility; and completion of general admission requirements.

Occupational Curriculum		Credit Hours
MSD 101	Organizational Behavior	5
MSD 103	Leadership	5
MSD 106	Performance Management	5
MSD 151	Personal Development for Supervisors	5
MSD 156	Supervision in a Service Environment	5
Total Credit Hours Required for Graduation:		25

HEALTH INFORMATION TECHNOLOGY: AAS DEGREE

The Health Information Technology (HIT) Degree program prepares individuals for health careers in non-clinical settings. Graduates may be responsible for or involved in the processing, reporting, security, and management of health information crucial to the delivery of quality patient care. The Health Information Technician is in great demand in a variety of settings, including acute care hospitals, clinics, doctor's offices, medical groups, long term care facilities, and increasingly, in a wide array of product and service companies supporting healthcare. Insurance companies, law offices, pharmaceutical companies and governmental entities also offer employment opportunities.

Graduates are eligible to take the National Accreditation exam, given annually by the American Health Information Management Association. Upon successful completion of this examination (passing score), the Health Information Technician receives the title of Registered Health Information Technician (RHIT) and may display these initials after his/her name. The program also prepares graduates to take the Certified Coding Specialist (CCS) exam.

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(s); and 4) completion of general admission requirements,

AND

Student's are required to complete BUS 212 Anatomy and Terminology or AHS 101 Anatomy and Physiology with the grade of "C" or higher, or approval by program director, before being admitted into the HIT program.

General Core Curriculum

		Credit Hours: 40
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communications	5
PSY 191	Introductory Psychology	5
MAT 1111	College Algebra	5
BIO 193	Anatomy & Physiology I	5
BIO 194	Anatomy & Physiology II	5
BIO 197	Medical Microbiology	5

Occupational Curriculum

		Credit Hours: 70
SCT 100	Introduction to Microcomputers	3
MSD 107	Employee Training and Development	5
	OR	
	Management Elective (See advisor for approved list)	5
MAS 103	Pharmacology	5
MAS 112	Human Diseases	5
HIT 201	Introduction to Health Information Technology	3

HEALTH INFORMATION TECHNOLOGY: AAS DEGREE (CONTINUED)

Occupational Curriculum		Credit Hours: 70
HIT 202	Legal Aspects of Health Information Technology	3
HIT 203	Health Data Management	5
HIT 204	Healthcare Statistics & Research	5
HIT 205	Quality Management and Performance Improvement	5
HIT 206	Professional Practice Experience I	4
HIT 207	Professional Practice Experience II	4
HIT 208	Professional Practice Experience III	4
HIT 210	Electronic Health Records	5
HIT 215	Coding and Classification I - Basic RHIT	4
HIT 216	Coding and Classification II - Intermediate RHIT	4
HIT 217	Coding and Classification III - CCS Track	3
	OR	
	Electives (See advisor for approved list)	3
HIT 218	Coding and Classification IV - CCS Track	3
	OR	
	Electives (See advisor for approved list)	3
Total Credit Hours Required for Graduation:		110

HELP DESK 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 strong technical foundation which they may adapt to any business or technical environment. This certificate is offered on campus and on-line.

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.

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	6
CIS XXX	Electives(See advisor for approved list)	5
Total Credit Hours Required for Graduation:		38

INTERNET SPECIALIST - WEBSITE DESIGN: AAS 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, and 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communications	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
Occupational Curriculum		Credit Hours: 72-74
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
	OR	
CIS 2321	Introduction to LAN and WAN	6
CIS 2202	XHTML Fundamentals	5
CIS 2211	Website Design Tools	6
CIS 1104	Web Graphics using Adobe Photoshop	4
	OR	
CIS 1108	Web Graphics using JASC Paint Shop	4
CIS 1123	Web Graphics and Animation using Adobe Flash	6
	OR	
CIS 1124	Web Graphics and Animation using Adobe Illustrator and Adobe Live Motion	6

INTERNET SPECIALIST -WEBSITE DESIGN: AAS DEGREE (CONTINUED)

CIS 2102	Advanced Web Graphics and Animation using Adobe Premier	6
	OR	
CIS 2104	Advanced Web Graphics and Multimedia using Adobe Director	6
	OR	
CIS 2105	Advanced Web Graphics and Animation using Adobe Flash	6
	OR	
CIS 2005	Advanced Web Graphics using Adobe Photoshop	6
CIS 2231	Design Methodology	6
CIS 2261	JavaScript Fundamentals	4
CIS 2281	Database Connectivity	6

Choose 1 of the courses listed below:

CIS 1106	Introduction to Web Programming using C#.Net	4
CIS 1107	Introduction to Web Programming using PERL	4
CIS 1109	Introduction to Web Programming using VB.NET	4
CIS 1110	Introduction to Web Programming using PHP	4
CIS 1111	Introduction to Web Programming using Python	4
CIS 1151	CIS Internship	4
CIS 2191	Internet Business Fundamentals	4
CIS 2291	Network Security	6

Total Credit Hours Required for Graduation: 102-104

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, and 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.

General Core Curriculum		Credit Hours: 18
ENG 101	English	5
	OR	
ENG 111	Business English	5
ENG 102	Technical Writing	5
	OR	
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 1013	Algebraic Concepts	5
	OR	
MAT 1011	Business Mathematics	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
	OR	
CIS 2321	Introduction to LAN and WAN	6
CIS 2202	XHTML Fundamentals	5
CIS 2211	Website Design Tools	6
CIS 1104	Web Graphics using Adobe Photoshop	4
	OR	
CIS 1108	Web Graphics using JASC Paint Shop	4
CIS 1123	Web Graphics and Animation using Adobe Flash	6
	OR	
CIS 1124	Web Graphics and Animation using Adobe Illustrator and Adobe Live Motion	6
CIS 2102	Advanced Web Graphics and Animation using Adobe Premier	6
	OR	
CIS 2104	Advanced Web Graphics and Multimedia using Adobe Director	6
	OR	

INTERNET SPECIALIST - WEBSITE DESIGN: DIPLOMA (CONTINUED)

CIS 2105	Advanced Web Graphics and Animation using Adobe Flash OR	6
CIS 2005	Advanced Web Graphics using Adobe Photoshop	6
CIS 2231	Design Methodology	6
CIS 2261	JavaScript Fundamentals	4
CIS 2281	Database Connectivity	6

Choose 1 of the course listed below:

CIS 1106	Introduction to Web Programming using C#.Net	4
CIS 1107	Introduction to Web Programming using PERL	4
CIS 1109	Introduction to Web Programming using VB.NET	4
CIS 1110	Introduction to Web Programming using PHP	4
CIS 1111	Introduction to Web Programming using Python	4
CIS 1151	CIS Internship	4
CIS 2191	Internet Business Fundamentals	4
CIS 2291	Network Security	6

Total Credit Hours Required for Graduation: 90

LINUX/UNIX SYSTEM ADMINISTRATOR: CERTIFICATE

The Linux/UNIX System Administrator Certificate program will complement an existing array of training programs in the CIS field. The Linux/UNIX curriculum will be taught as a stand-alone certificate, for students with prior networking experience, and as an option in the AAS program. Completion of the program prepares the student to design, build, and maintain small to medium sized Linux/UNIX based networks.

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

Occupational Curriculum		Credit Hours
CIS 2554	Introduction to Linux/UNIX	6
CIS 2555	Linux/UNIX Administration	6
CIS 2556	Linux/UNIX Advanced Administration	6
CIS 2557	Linux/UNIX Shell Script Programming	6
Total Credit Hours Required for Graduation:		24

MANAGEMENT/LEADERSHIP SPECIALIST: CERTIFICATE

The Management/Leadership Specialist Certificate serves as an expanded overview in the field of management.

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.

Occupational Curriculum:		Credit Hours
MSD 100	Management Principles	5
	OR	
MKT 101	Principles of Management	5
MSD 102	Employment Law	5
	OR	
MKT 103	Business Law	5
	OR	
MSD 105	Labor Management Relations	5
MSD 103	Leadership	5
MSD 106	Performance Management	5
MSD 107	Employee Training and Development	5
SCT 100	Introduction to Microcomputers	3
MSD XXX	Electives (See advisor for approved list)	5
Total Credit Hours Required for Graduation:		33

MANAGEMENT & SUPERVISORY DEVELOPMENT: AAS 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. Program graduates who are experienced workers are prepared to perform management and supervisory functions, such as employee training, labor relations, employee evaluation, and employee counseling and disciplinary action.

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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
	OR	
ECO 192	Microeconomics	5
	OR	
ECO 193	Macroeconomics	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
Occupational Curriculum		Credit Hours: 56
MSD 100	Management Principles	5
MSD 109	Managerial Accounting and Finance	5
	OR	
ACC 101	Principles of Accounting	6
MSD 102	Employment Law	5
	OR	
MKT 103	Business Law	5
MSD 104	Human Resource Management	5
MSD 101	Organizational Behavior	5
MSD 103	Leadership	5
MSD 112	Introduction to Business and Economics	5
MSD 113	Business Ethics	5
MSD 114	Management Communications Technologies	5
MSD 210	Team Project	5
MSD 220	Management Occupation Based Instruction	3
SCT 100	Introduction to Microcomputers	3
Total Credit Hours Required for Graduation:		106

Note: Students must also take 15 hours of elective credit within the Management and Supervisory Development program, along with 5 hours of general electives, chosen in consultation with his or her advisor.

**MANAGEMENT AND SUPERVISORY DEVELOPMENT:
AAS DEGREE, BANKING OPTION**

The Banking Option of the Management and Supervisory Development AAS 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 Science 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 33
SCT 100	Introduction to Microcomputers	3
MSD 100	Management Principles	5
MSD 101	Organizational Behavior	5
MSD 102	Employment Law	5
MSD 103	Leadership	5
MSD 113	Business Ethics	5
MSD 220	Management Occupational Based Instruction	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:		93

MANAGEMENT & SUPERVISORY DEVELOPMENT: DIPLOMA

The Management and Supervisory Development program prepares experienced workers for entry into management or supervisory occupations in a variety of businesses and industries. The program provides learning opportunities that introduce, develop and reinforce 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.

General Core Curriculum		Credit Hours: 18
ENG 111	Business English	5
ENG 112	Business Communications	5
MAT 1011	Business Math	5
	OR	
MAT 1012	Foundations of Mathematics	5
EMP 100	Interpersonal Relations & Professional Development	3
Occupational Curriculum		Credit Hours: 71
MSD 100	Management Principles	5
MSD 101	Organizational Behavior	5
MSD 109	Managerial Accounting and Finance	5
	OR	
ACC 101	Principles of Accounting	6
MSD 102	Employment Law	5
	OR	
MKT 103	Business Law	5
MSD 104	Human Resource Management	5
MSD 103	Leadership	5
MSD 106	Performance Management	5
MSD 210	Team Project	5
MSD 112	Introduction to Business and Economics	5
MSD 113	Business Ethics.	5
MSD 114	Management Communication Technologies	5
MSD 220	Management Occupation Based Instruction I	3
SCT 100	Introduction to Microcomputers	3
	Electives(See advisor for approved list)	10
Total Credit Hours Required for Graduation:		89

MEDICAL LANGUAGE SPECIALIST: CERTIFICATE
(FORMERLY MEDICAL TRANSCRIPTION)

The Medical Language Specialist program includes instruction in transcription, proofreading, and report analysis while applying medical terminology and computer application skills.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED; 3) Keyboarding skills must be 40 words per minute; 4) achievement of program ready or provisional scores on the placement test; and 5) completion of general admission.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing	6
BUS 211	Medical Terminology	3
	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 214	Advanced Medical Document Processing	5
MAS 112	Human Diseases	5
ENG 111	Business English	5
	Electives (See advisors for approved list)	6
Total Credit Hours Required for Graduation:		43

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

MEDICAL OFFICE ASSISTANT: CERTIFICATE
(FORMERLY MEDICAL RECEPTIONIST)

The Medical Office Assistant Certificate is designed to provide the educational opportunities to individuals that will enable them to obtain the knowledge and skills necessary to secure an entry level position as a receptionist in a physician's office, hospital, clinic, or other related areas. Technical courses apply to the degree or diploma program in office technology.

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.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing <i>BUS 1130</i>	6
BUS 216	Medical Office Procedures <i>BUS 2340</i>	6
BUS 211	Medical Terminology <i>BUS 2300</i>	3
	OR	
AHS 109	Medical Terminology for Allied Health	3
ENG 111	Business English <i>ENG 1010 Fundamentals</i>	5
	Electives (See advisors for approved list) <i>of Eng.</i>	6
Total Credit Hours Required to Graduate:		29

subs or new 4 digit course numbers

MICROSOFT EXCEL APPLICATION SPECIALIST: CERTIFICATE

The Microsoft Excel Application Specialist Certificate is for end users of Microsoft Excel. Students completing the certificate and passing the Microsoft examination may be certified in Excel. This certificate is offered on campus and on-line.

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 ASSET placement test; and 4) completion of general admission requirements.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputer	3
CIS 2228	Comprehensive Spreadsheet Techniques	6
CIS 222	Microsoft Office Specialist Certification: Excel	3
CIS XXX	Electives (See advisor for approved list)	3
Total Credit Hours Required for Graduation:		15

MICROSOFT WORD APPLICATION PROFESSIONAL: CERTIFICATE

The Microsoft Word Application Professional Certificate prepares students to be end users of Microsoft Word. The program emphasizes keyboarding and Microsoft Word operations necessary for successful employment. It provides short-term training for students desiring to progress in their occupation or who want to gain more technological understanding.

This program is no longer accepting new students.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing	6
BUS 108	Word Processing	5
BUS 201	Advanced Word Processing	5
Total Credit Hours Required for Graduation:		19

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.

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.

Occupational Curriculum		Credit Hours
CIS 106	Computer Concepts	5
CIS 1140	Networking Fundamentals	6
CIS 2291	Network Security	6
Choose One of the Following Sequences:		
CIS 2554	Introduction to Linux/Unix	6
CIS 2555	Linux/Unix Administration	6
	OR	
CIS 2321	Introduction to LAN and WAN	6
CIS 2322	Introduction to WAN's and Routing	6
Total Credit Hours Required for Graduation:		29

NETWORK SECURITY SPECIALIST: CERTIFICATE

The Network Security Specialist program provides the skills and knowledge necessary to design, install, and maintain secure networks. The program provides students with the theoretical knowledge and practical experience needed to become a successful network security professional.

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.

Occupational Curriculum		Credit Hours: 29
CIS 106	Computer Concepts	5
CIS 1140	Networking Fundamentals	6
CIS 2149	Implement MS Windows Prof	6
CIS 2150	Implement Microsoft Windows Server	6
CIS 2291	Network Securities	6
Total Credit Hours Required for Graduation:		29

NETWORKING SPECIALIST: AAS 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 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	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 122	Microcomputer Installation and Maintenance	7
CIS 1140	Networking Fundamentals	6
	OR	
CIS 2321	Introduction to LAN & WAN	6
CIS XXX	Language Elective	7
CIS XXX	Electives (See advisor for approved list)	9
Choose one of the following two options:		
CISCO Option		
CIS 2322	Introduction to WANs and Routing	6
CIS 276	Advanced Routers and Switches	6
CIS 277	WAN Design	6
CIS XXX	Electives (See advisor for approved list)	6
Linux / UNIX Option		
CIS 2554	Introduction to Linux/UNIX	6
CIS 2555	Linux/UNIX	6
CIS 2556	Linux/UNIX Advanced Administration	6
CIS 2557	Linux/UNIX Shell Script Programming	6
Total Credit Hours Required for Graduation:		102

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 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.

General Core Curriculum		Credit Hours: 18
ENG 101	English	5
	OR	
ENG 111	Business English	5
ENG 102	Technical Writing	5
	OR	
ENG 112	Business Communications	5
EMP 100	Interpersonal Relations & Professional Development	3
MAT 1013	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 122	Microcomputer Installation and Maintenance	7
CIS 1140	Networking Fundamentals	6
	OR	
CIS 2321	Introduction to LAN & WAN	6
CIS XXX	Language Elective	7
CIS XXX	Electives (See advisor for approved list)	9

Choose one of the following two options:

CISCO Option

CIS 2322	Introduction to WANs and Routing	6
CIS 276	Advanced Routers and Switches	6
CIS 277	WAN Design	6
CIS XXX	Electives (See advisor for approved list)	6

Linux / UNIX Option

CIS 2554	Introduction to Linux/UNIX	6
CIS 2555	Linux/UNIX	6
CIS 2556	Linux/UNIX Advanced Administration	6
CIS 2557	Linux/UNIX Shell Script Programming	6

Total Credit Hours Required for Graduation: 90

ORGANIZATIONAL LEADERSHIP: CERTIFICATE

The Organizational Leadership Certificate program is designed for students who are moving into supervisory roles in his or her 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.

Occupational Curriculum:		Credit Hours
MKT 101	Principles of Management	5
MSD 102	Employment Law	5
MSD 103	Leadership	5
MSD 106	Performance Management	5
MSD 107	Employee Training and Development	5
SCT 100	Introduction to Microcomputers	3
Total Credit Hours Required for Graduation:		28

PC REPAIR AND NETWORK TECHNICIAN: CERTIFICATE

The PC Repair and Network Technician certificate prepares the student with the skills needed to perform personal computer troubleshooting and repair.

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.

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
	OR	
CIS 2321	Introduction to LAN & WAN	6
Total Credit Hours Required for Graduation:		27

SUPERVISOR/MANAGER SPECIALIST: CERTIFICATE

The Supervisor/Manager Specialist Certificate program serves as an introduction to the basics of supervision and/or management.

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.

Occupational Curriculum:		Credit Hours
MSD 100	Management Principles OR	5
MKT 101	Principles of Management	5
MSD 103	Leadership	5
MSD 104	Human Resource Management	5
MSD 102	Employment Law OR	5
MKT 103	Business Law OR	5
MSD 105	Labor Management Relations	5
Total Credit Hours Required for Graduation:		20

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.

Occupational Curriculum:		Credit Hours
MSD 101	Organizational Behavior	5
MSD 103	Leadership	5
	Electives (See advisor for approved list)	5
Total Credit Hours Required for Graduation:		15

TECHNICAL COMMUNICATION SPECIALIST: 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 his or her 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; and 4) completion of general admission.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
ENG 191	Composition and Rhetoric	5
BUS 101	Document Processing	6
CIS 127	Comprehensive Word Processing and Presentation Graphics	6
BUS 161	Desktop Publishing I	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
MAT 1127	Introductions to Statistics	5
	OR	
MAT 1113	Pre-Calculus	5
	Electives(See advisor for approved list)	5
Take one of the following courses:		
ENG 195	Technical Writing	5
ENG 193	Literature and Composition	5
HUM 191	Introduction to Humanities	5
ART 191	Art Appreciation	5
MUS 191	Music Appreciation	5
Total Credit Hours Required for Graduation:		55

TECHNICAL MANAGEMENT SPECIALIST: CERTIFICATE

The Technical Management Specialist Certificate program is designed to allow integration of management knowledge and other areas of technical training.

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.

Occupational Curriculum		Credit Hours
MSD 100	Management Principles	5
	OR	
MKT 101	Principles of Management	5
MSD 102	Employment Law	5
	OR	
MKT 103	Business Law	5
	OR	
MSD 105	Labor Management Relations	5
MSD 104	Human Resource Management	5
SCT 100	Introduction to Microcomputers	3
MSD XXX	Electives(See advisor for approved list)	5
XXX xxx	Electives(See advisor for approved list)	17
Total Credit Hours Required for Graduation:		40

WEB SITE DESIGNER: CERTIFICATE

This certificate program is designed to provide students with an understanding of the concepts, principles, and techniques required to create and maintain web sites. This program is for students seeking to add web page design knowledge to his or her current IT skills and will qualify students for employment as entry level web site designers.

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; 4) completion of general admission; and 5) SCT 100 and CIS 1140 or equivalent experience and advisor approval.

This program is no longer accepting new students.

Occupational Curriculum		Credit Hours
CIS 2202	XHTML Fundamentals	5
CIS 2231	Design Methodology	6
CIS 2281	Database Connectivity	6
CIS 2261	JavaScript Fundamentals	4
CIS 2211	Web Site Design Tools	6
CIS 1104	Web Graphics Using Adobe Photoshop	4
CIS 1123	Web Graphics & Animation Using Adobe Flash	6

Total Credit Hours Required for Graduation: 37

HEALTH SCIENCES AND NURSING

PROGRAM DESCRIPTIONS AND REQUIREMENTS

ASSOCIATE DEGREE NURSING: GUIDELINES

The Associate Degree Nursing program at Northwestern Technical College prepares the learner to apply the behaviors, knowledge, and skills required of a self-directed, critical thinking, beginning nurse generalist. Upon successful completion of the program, the graduate will be able to function as a provider of care, manager of care, and member of the discipline of nursing. The program has received approval from the Georgia Board of Nursing and accreditation by the National League for Nursing Accreditation Commission.

Students who meet all the admission requirements of the college and are candidates for the ADN program, may begin taking general core curriculum classes at any time. Students who are enrolled in these courses should understand that enrollment in general education classes does not guarantee admission to the ADN program. They should also be aware that there is a high level of competition for entrance into the nursing sequence. Students must be 17 years of age before entering the nursing sequence in order to comply with clinical facility requirements.

Admission Requirements (Generic Track)

Selection for admission to the ADN program is based on a point system which includes consideration of course grades, state of residency, number of core courses that have been completed and pre-entrance examination scores. Selection for entrance into the fall class will be made during the prior summer quarter. An application to the ADN program (available in the nursing department office) must be completed and received in the department office no later than February 1 for inclusion in that year's applicant pool for the following fall quarter. Applications received after this date will not be considered. The application may be submitted at any time after acceptance to the college and declaring nursing as a major.

By the end of the spring quarter prior to selection, the applicants must

- 1) be officially admitted to Northwestern Technical College and have declared associate degree nursing as a major,
- 2) have completed all learning support courses,
- 3) have biology course credits within the past five years,
- 4) have a cumulative grade point average of at least 3.0 calculated for the program required core courses completed (all attempts will be included in the calculation),
- 5) obtain a minimum composite score of 65th percentile on the pre-entrance examination
- 6) be able to meet the technical standards listed under "Essential Requirements for Nursing".

Selection Process

Students who submitted an application to the ADN department by the February 1st deadline will receive a letter notifying them of the dates, times, location, and cost of the entrance exam. Should a student register for the exam and not take it on the assigned date, the cost of the exam will be forfeited. That student will not be considered for selection. When exam results are received and spring quarter grades have been posted, faculty will begin the selection process using a point system that considers course grades, state of residency, number of core courses that have been completed and pre-entrance exam scores. Students will be notified by letter that they are accepted or not accepted. Students who are not accepted will have the opportunity to be considered for the next year's class. They will have an opportunity to retest the following year if they so desire or they may keep their current score. Students who retest must pay another exam fee.

Once students are selected for admission to the ADN program, they must attend a mandatory orientation session. The dates and times will be included in the acceptance letter. During the orientation, the students will receive additional information about program requirements. This will include:

- 1) American Heart Association CPR certification for the Healthcare Provider,
- 2) student liability insurance,
- 3) personal health history,
- 4) physical assessment by a healthcare provider,
- 5) record of immunizations and titers,
- 6) Healthstream programs,
- 7) ADN student handbook.

Upon admission to the program, students must also have a mandatory background check and a mandatory annual random drug screen performed at students' expense.

NURSING LPN TO ADN TRANSITION: GUIDELINES

Transition Students

The associate degree nursing program has an accelerated track for LPNs who desire to transition to ADN. The LPN to ADN Transition track of the ADN Program provides qualified Licensed Practical Nurses the opportunity to advance their formal nursing education to achieve an Associate Degree in Nursing and qualify to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The program builds on the previous education and experience of the LPN providing an accelerated track for completion of the degree requirements.

Admission Requirements (Transition Track)

A Licensed Practical Nurse (LPN) may receive advanced placement in the nursing program if they hold a valid unencumbered license with documentation of employment as a LPN with a minimum of 2000 clock hours within three years prior to admission. Admission is a competitive and based on a point system that considers course grades, state of residency, and pre-entrance examination scores.

The applicants must:

- 1) Be officially admitted to Northwestern Technical College and declared associate degree nursing as a major
- 2) Have completed all required core courses by the end of Spring Quarter
- 3) Have science course credits less than 5 years old
- 4) Have a cumulative grade point average (GPA) of a least 3.0 calculated for the program required core courses (all attempts will be included in this calculation)
- 5) Obtain a minimum of 65th percentile on the pre entrance exam
- 6) Obtain a minimum of 70th percentile on the NLN ACE-I LPN to ADN Mobility Exam.
- 7) Obtain an 85% passage score on a dosage calculation examination
- 8) Validate selected nursing skills
- 9) Be able to meet the physical demands requirements as listed under "Essential Requirements for Nursing" (See College Catalog)
- 10) Have an application to the nursing program on file in the nursing office by February 1 prior to the summer quarter they plan to begin the nursing sequence.

Process for Application

Students may apply to the associate degree nursing program at any time after acceptance to the college and declaring nursing as their major.

- 1) Obtain an application form from the nursing department
- 2) Return the completed application form to the nursing department no later than February 1st preceding the summer quarter they wish to enter the program
- 3) Submit a copy of current LPN license and proof of employment hours

Selection Process

During winter quarter the nursing department secretary will send a letter to LPNs who have applied for advanced placement in the ADN program by the February 1st deadline. This letter will notify the students about the date, time, location and cost for the administration of the pre-entrance examination. After receipt of the letter, students should:

- 1) Return the enclosed form indicating their intent to take the examination
- 2) Pay and register for the examination as instructed and provide the nursing department secretary with a copy of the receipt of payment. The pre-entrance examination will be administered in late winter or early spring quarter.

Failure to take the examination will result in forfeiture of the examination cost.

Those applicants who obtain a minimum of the 65th percentile on the examination will be eligible to take the ACE-I examination. Upon attainment of a minimum of 70th percentile on this examination, applicants will take a dosage calculation examination. There will be two attempts available for this examination. The final step in the selection process is validation of selected nursing skills. Once the testing process is complete, students will be selected by the faculty using a point system that includes core course grades, state of residency, and pre-entrance test scores.

After the completion of the selection process by the faculty, students will be notified by letter that they are accepted or not. The letter will state the date and time for a mandatory orientation. Applicants who are not accepted will have the opportunity to be considered for the generic nursing class or they may attempt to enter the transition class the next summer quarter.

For further information about nursing program requirements please see the Associate Degree Nursing section of this catalog. Students in the transition track of the ADN program are required to meet the same program requirements as those in the generic track.

ADDITIONAL GUIDELINES FOR GENERIC AND TRANSITION TRACKS

Transfer Credit

Students with transfer credit from another nursing program may be considered for admission with advanced standing on a case by case basis. They must meet the same entrance requirements as all other students. However, satisfying the listed requirements does not guarantee admission to the program with advanced standing. Transferring students will not be given priority over currently enrolled or returning students. These students must also submit a letter of recommendation from his or her former nursing program director.

Retention Policies

In order to progress through the associate degree nursing program, students must:

- 1) 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.
- 2) meet special requirements in academic achievement required by some courses, such as 80% or 90% on dosage calculation examinations and completion of standardized tests.
- 3) attain an overall 75% or better unit test average, and an overall total test average of 75% (unit exams plus final exam) excluding other points.
- 4) have satisfactory clinical and skills performance as defined on the clinical evaluation tool in each clinical course.
- 5) maintain CPR certification and carry professional liability insurance while enrolled in nursing courses. Students will not be allowed in the clinical agencies without CPR certification and liability insurance.
- 6) maintain annual health requirements

Readmission Policies and Requirements

Students who do not progress in the nursing program may be considered for readmission to the program. Only one readmission into the nursing program per track is permitted. Students must continue to be in good standing with the institution and the nursing program (i.e. no disciplinary or academic misconduct on record). Students must complete a request for readmission and meet with the director of the ADN program for an interview at least one quarter prior to the quarter of readmission. In order to be considered for readmission, students must:

- 1) meet the current admission requirements.
- 2) enroll in the unsuccessful course.
- 3) complete current program requirements.

Reentry is conditional upon class and clinical space availability. If reentry is requested for NUR 191 or NUR 192 (first quarter nursing courses) students will be placed back into the applicant pool for the next class selection. They will be ranked using the same process as all other candidates; however nursing courses will be included in the criteria used and in calculating the GPA. If the reentry is for any subsequent courses, a reentry score will be calculated based on prior nursing course averages and dosage calculations examination averages. Students will then be ranked according to the reentry score. All efforts will be made to facilitate reentry.

Essential Requirements for Nursing

All candidates for the associate degree in nursing must meet intellectual, physical, and social core performance standards necessary to provide safe patient care in an independent manner. The areas below include examples of necessary activities and skills but are not all-inclusive.

- 1) Critical Thinking:** Critical thinking ability sufficient for clinical judgment. Examples include identification of cause/effect relationships in clinical situations, development of care plans, transferring knowledge from one situation to another, evaluate outcomes, problem solving, prioritizing, using short and long term memory.
- 2) Interpersonal:** Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural and intellectual backgrounds. Examples include establishing rapport with patients/clients, families, and colleagues, negotiation of interpersonal conflict, and respect of cultural diversity.
- 3) Communication:** Communication abilities sufficient for verbal and written interaction with others. Examples include explanation of treatment procedures, initiation of health teaching, documentation and interpretation of nursing actions and patient/client responses, and written and oral reports to other health care professionals.
- 4) Mobility:** Physical abilities sufficient for movement from room to room and in small spaces. Examples include moving around in a patient's room, work spaces and treatment areas; administration of cardiopulmonary procedures such as resuscitation; sitting or standing and maintaining balance for long periods; twisting, bending, stooping; moving quickly in response to possible emergencies; pushing, pulling, lifting or supporting a dependent adult patient; squeezing with hands and fingers; and repetitive movements
- 5) Motor Skills:** Gross and fine motor abilities sufficient for providing safe, effective nursing care. Examples include calibration and use of equipment, positioning of dependent adult patients/clients, grasping and manipulation of small objects/instruments, using a computer keyboard, and writing with a pen.
- 6) Hearing:** Auditory ability sufficient for monitoring and assessing health needs. Examples include hearing monitor and pump alarms, emergency signals fire alarms, auscultatory sounds and cries for help.
- 7) Visual:** Visual ability sufficient for observation and assessment necessary in nursing care. Examples include observation of patient/client responses such as respiratory rate and depth, skin color, and other physical signs; visualization of monitors, watches with second hands, medication labels and vials, and increments on a medication syringe; visualization of objects from twenty inches to twenty feet away; use of depth perception and peripheral vision; distinguishing colors; and reading written documents.
- 8) Tactile:** Tactile ability sufficient for physical assessment. Examples include performance of palpation, functions of physical examination (such as discrimination of pulses and detection of temperature), and functions related to therapeutic intervention (such as insertion of a catheter).
- 9) Emotional:** Emotional stability sufficient to tolerate rapidly changing conditions and environmental stress. Examples include establishment of therapeutic interpersonal boundaries, providing patients/clients with emotional support, adapting to changing conditions in the work environment and stress, dealing with unexpected or unpredictable events, maintaining focus on task, performing multiple tasks concurrently, and being able to handle strong emotions.

Taken from Southern Council on Collegiate Education for Nursing (1993, reapproved 2004) and National Council of State Boards of Nursing, Inc: Guidelines for Using Results of Functional Abilities Studies and Other Resources (1999).

Work Environment Associated Risks

These include

- 1) Handling sharp instruments.
- 2) Exposure to infections (communicable diseases).
- 3) Strains (heavy lifting).
- 4) Exposure to latex.

OSHA Risk Factor - Category A

Includes

- 1) Exposure to blood and other body fluids.
- 2) Exposure to noxious smell, either toxic or non-toxic.
- 3) 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.

Graduation Requirements

All courses in the nursing curriculum must be successfully completed in order to graduate. However, only students who have completed required course work, and received the ADN degree are eligible to sit for the NCLEX-RN exam for licensure as a registered nurse. Students must also pass a HESI Exit Exam which will be administered during the NUR 294 Nursing Seminar course in the final quarter of the program. Students must score 875 on the HESI Exit Exam within three attempts to pass NUR 294. Students will be required to submit remediation between attempts as specified by the nursing faculty within time frames that will be determined on a case by case basis. If they do not pass the HESI Exit Exam before the end of spring quarter they will receive an incomplete in the course and will not be able to graduate. If they score 875 on a subsequent attempt, the incomplete will be changed to the earned grade and they will be able to apply to sit for the NCLEX-RN if they meet all other course, program, and graduation requirements. If the required HESI score is not achieved within three attempts, they will not pass NUR 294 and will have to repeat the course. Reentry is on a space available basis. (*See Readmission Policies and Requirements*)

Licensure Availability

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 misdemeanor and/or felony conviction.

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 violating 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.

ASSOCIATE DEGREE NURSING: ADN DEGREE

General Core Curriculum		Credit Hours: 48
BIO 193	Anatomy and Physiology I	5 (4 class, 3 clinical)
BIO 194	Anatomy and Physiology II	5 (4 class, 3 clinical)
BIO 197	Microbiology	5 (4 class, 3 clinical)
PSY 191	Introduction to Psychology	5 (5 class)
PSY 291	Human Growth and Development	5 (5 class)
MAT 1111	College Algebra	5 (5 class)
	OR	
	Equivalent or Higher Math Course	5 (5 class)
	<i>(Note: Contemporary Math no longer fills this requirement.)</i>	
ENG 191	Composition and Rhetoric	5 (5 class)
ENG 193	Literature and Composition	5 (5 class)
	OR	
HUM 191	Introduction to Humanities	5 (5 class)
	OR	
ART 191	Art Appreciation	5 (5 class)
	OR	
MUS 191	Music Appreciation	5 (5 class)
SPC 191	Fundamentals of Speech	5 (5 class)
SCT 100	Introduction to Microcomputers	3 (3 class)

Nursing Curriculum		Credit Hours: 62
NUR 191	Fundamentals of Nursing	6 (5 class, 3 clinical)
NUR 192	Dosage Calculations	3 (3 class)
NUR 193	Lifespan Nursing Care I	10 (7 class, 9 clinical)
NUR 194	Lifespan Nursing Care II	10 (7 class, 9 clinical)
NUR 291	Nursing Care of the Childbearing Family	10 (7 class, 9 clinical)
NUR 292	Nursing to Promote Mental Health	10 (7 class, 9 clinical)
NUR 293	Lifespan Nursing Care III	10 (7 class, 9 clinical)
NUR 294	Nursing Seminar	3 (3 class)

Total Credits Required for Graduation: 110

For Transition Students

General core curriculum requirements are the same as listed above

*Admission to transition track provides credit for

NUR 191 and NUR 192

NUR 200 LPN to ADN Transition 9 (7 class, 6 clinical)

NUR 200 provides credit for

NUR 193 and NUR 194

NUR 291, NUR 292, NUR 293, NUR 294

Hours legend:

Class Hours: one credit hour for one clock hour per week

Clinical Hours: one credit hour for three clock hours per week

Requirements for the ADN Degree

Minimum program length for generic students: 3 quarters on Level I (1 year) + 3 quarters on Level II (1 year) = 6 quarters (2 years).

Minimum program length for transition students: 1 quarter transition and 3 quarters of Level II courses = 4 quarters.

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

CARDIOVASCULAR TECHNOLOGY GUIDELINES:

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

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 cardiovascular technology program.

Applicants to the Cardiovascular Technology program will be considered for admission based on the following criteria.

- 1) Be officially admitted to Northwestern Technical College and declared cardiovascular technology as a major.
- 2) Submission a student application for the CVT program.
- 3) Submission of a brief autobiography.
- 4) Achieve of satisfactory scores on the Health Occupations Aptitude Test.
- 5) Documentation of physical examination and immunization records three weeks prior to clinical setting.
- 6) Submission of a completed background check prior to entering the clinical setting.
- 7) Completion of HealthStream Orientation a requirement by The Joint Commission on Accreditation of Hospital Organization.
- 8) Ability to comply with health related standards and meet minimum essential skill requirements.
- 9) Payment of fees for liability insurance.
- 10) Documentation of current CPR certification.

Transferring Students:

Students who are transferring from other regionally accredited Cardiovascular Technology programs must meet all NTC and Cardiovascular Technology 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 may be required to document proficiency or repeat Cardiovascular Technology coursework taken more than 2 years prior to admission to the Cardiovascular Technology program.
- 4) Transfer students may be required to document proficiency or repeat science courses taken more than 3 years prior to admission to the Cardiovascular Technology program.
- 5) Only courses with a grade of "C" or better will be acceptable for transfer into the Cardiovascular Technology program.

Cardiovascular Essential Skill Requirement:

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

- 1) Meet admissions 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) Be physically capable of standing long periods of time. Minimal lifting will be needed. Assist in lifting, transferring, and moving patients according to safety standards.
- 6) Perform daily functions for patients; assist with vascular, invasive and noninvasive procedures.
- 7) Read and interpret legal documents within the scope of cardiovascular 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 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) Be able to follow policies and procedures required in work setting and field work setting.
- 15) Demonstrate and maintain professional behavior.
- 16) Demonstrate warmth, patience, and compassion to ensure trust and respect from your patients and your colleagues.
- 17) Be flexible and willing to change as necessary to meet the environment needs of others.

Retention Policies:

- 1) Occupational Cardiovascular students must maintain a cumulative grade point average (GPA) of 2.5 to remain in the program.
- 2) Cardiovascular Technology students must maintain a "C", 75 or higher grade in each course, including practicum's (fieldwork), in order to progress to the next quarter of the Cardiovascular Technology program.
- 3) Cardiovascular Technology students must maintain CPR certification.
- 4) Cardiovascular Technology students must maintain liability insurance.
- 5) Ability to comply with health related standards and meet minimum essential skill requirements.

Readmission Policies:

- 1) Students withdrawing or failing a class after admission into the Cardiovascular Technology 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 admitted back into 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 NTC.

Clinical Requirements:**Physical Demands:**

Students will be involved in fieldwork experiences in hospitals. Students may be exposed to communicable diseases and incur strains due to lifting, transferring, and moving patients. Students may be exposed to body fluids and blood. Due to the nature of the cardiovascular technology practice, the work is considered medium work requiring the ability to push/pull carts, etc. weighing 50 pounds is required. The job can be tiring as in most settings you will be required to do frequent stooping, reaching, standing, sitting, and/or walking. Manual dexterity is needed in the manipulation of treatment equipment. The ability to communicate and express ideas by spoken word and written expression is required. There may be added mental and physical stress in the allied health field.

OSHA Risk Factor – Category A:

A change 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 nontoxic, exposure to toxic fumes, gases, vapors, mists of liquids which could, depending on the chemical, cause general or localized disabling condition, as a result of inhalation, ingestion, or action of the skin.

CARDIOVASCULAR TECHNOLOGY: AAS 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.

General Core Curriculum
Credit Hours: 30

ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
MAT 1101	Mathematical Modeling	5
	OR	
MAT 1111	College Algebra	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to 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 for Allied Health Sciences	3

CARDIOVASCULAR TECHNOLOGY: AAS DEGREE (CONTINUED)

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

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 (See advisor for approved list)	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 (See advisor for approved list)	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 (See advisor for approved list)	4

Total Credit Hours Required for Graduation: 136 - 142

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 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
BUS 212	Anatomy and Terminology	5
MAT 1012	Foundations of 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

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 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 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: Students will be required to purchase mandatory uniform and minimal supplies for the EMT program. Students entering the EMT program are required to complete a standardized physical examination, drug screen, background check, Health Stream Orientation, and pay liability insurance prior to having physical contact with patients. Each student will be given a physical form and cost sheet at the time of the EMT interview.

Note: If you are pregnant or become pregnant, and wish to enter or remain in the EMT program, you must present a doctor's release that states that the requirements of the EMT program will not endanger your health or the health of the baby.

Note: EMT students are required to purchase liability insurance. The cost is \$71.00.

Occupational Curriculum		Credit Hours
EMC 100	Introduction to the EMT Profession	3
EMC 103	Patient Assessment and Airway Assessment for the EMT	3
EMC 105	Medical/Behavioral and OB/Peds Emergency for the EMT	4
EMC 108	Trauma Emergencies for the EMT	2
EMC 110	Summative Evaluations for the EMT - Basics	3
EMC 113	Pharmacology and Shock/Trauma Management for the EMT - Intermediate	3
EMC 116	Medical Emergency for the EMT - Intermediate	3
EMC 119	Summative Evaluations for the EMT - Intermediate	3
Total Credit Hours Required for Graduation:		24

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. The Medical Assisting Diploma Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Commission of Accreditation of Allied Health Education Programs, 1361 Park Street, Clearwater, FL 33756. Phone: (727) 210-2350

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.

Note: See below for additional program-specific admission requirements.

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 Requirements

All candidates must meet intellectual, physical, and social core performance standards necessary to provide safe patient care in an independent manner. The areas below include examples of necessary activities and skills but are not all-inclusive.

- 1) Critical Thinking:** Critical thinking ability sufficient for clinical judgment. Examples include identification of cause/effect relationships in clinical situations, transferring knowledge from one situation to another, evaluate outcomes, problem solve, prioritize, use short and long term memory.
- 2) Interpersonal:** Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural and intellectual backgrounds. Examples include establishing rapport with patients/clients, families, and colleagues, negotiation of interpersonal conflict, and respect of cultural diversity.
- 3) Communication:** Communication abilities sufficient for verbal and written interaction with others. Examples include explanation of treatment procedures, initiation of health teaching, documentation and patient/client responses, and written and oral reports to other health care professionals.
- 4) Mobility:** Physical abilities sufficient for movement from room to room and in small spaces. Examples include moving around in an exam room, work paces and treatment areas; administration of cardiopulmonary procedures such as resuscitation; sitting or standing and maintaining balance for long periods; twisting, bending, stooping; moving quickly in response to possible emergencies; pushing, pulling, lifting or supporting a dependent adult patient;

squeezing with hands and fingers; and repetitive movements.

5) Motor Skills: Gross and fine motor abilities sufficient for providing safe, effective patient care. Examples include calibration and use of equipment, positioning of dependent adult patients/clients, grasping and manipulation of small objects/instruments, using a computer keyboard, and writing with a pen.

6) Hearing: Auditory ability sufficient for monitoring and assessing health needs. Examples include hearing monitor and equipment alarms, emergency signals fire alarms, auscultatory sounds and cries for help.

7) Visual: Visual ability sufficient for observation and assessment necessary in patient care. Examples include observation of patient/client responses such as respiratory rate and depth, skin color, and other physical signs; visualization of monitors, watches with second hands, medication labels and vials, and increments on a medication syringe; visualization of objects from twenty inches to twenty feet away; use of depth perception and peripheral vision; distinguishing colors; and reading written documents.

8) Tactile: Tactile ability sufficient for physical assessment. Examples include performance of palpation, functions of physical examination (such as discrimination of pulses and detection of temperature), and functions related to therapeutic intervention (such as insertion of a catheter).

9) Emotional: Emotional stability sufficient to tolerate rapidly changing conditions and environmental stress. Examples include establishment of therapeutic interpersonal boundaries, providing patients/clients with emotional support, adapting to changing conditions in the work environment and stress, dealing with unexpected or unpredictable events, maintaining focus on task, performing multiple tasks concurrently, and being able to handle strong emotions.

Work Environment Associated Risks

These include

- 1) Handling sharp instruments.
- 2) Exposure to infections (communicable diseases).
- 3) Strains (heavy lifting).
- 4) Exposure to latex.

OSHA Risk Factor - Category A

Includes

- 1) Exposure to blood and other body fluids.
- 2) Exposure to noxious smell, either toxic or non-toxic.
- 3) 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.

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.

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.

Readmission Policies

- 1) All Current admission requirements must be met before applying for re-admission.

MEDICAL ASSISTING: AAS DEGREE**Readmission Policies (Continued)**

- 2) Students must continue to be in good standing with the institution and the Medical Assistant program with no disciplinary or academic misconduct on record
- 3) Only one readmission into the Medical Assistant course in which the student was unsuccessful is allowed.
- 4) After an unsuccessful Medical Assistant course, the student is required to be placed on the waiting list again and will reenter at the same level of failure. The student will be required to pass a skill check-off in the school laboratory before reentrance into the clinical rotation.
- 5) Readmission will depend on the student's status on the list. Placement above a program ready student will not occur.

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

General Core Curriculum		Credit Hours: 40
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	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 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 77
BUS 101	Document Processing	6
BUS 108	Word Processing	5
AHS 109	Medical Terminology for Allied Health Sciences	3
SCT 100	Introduction to Microcomputers	3
AHS 104	Introduction to Health Care	3
MAS 101	Legal Aspects of the Medical Office	3
MAS 103	Pharmacology	5
MAS 106	Medical Office Procedures	5
MAS 108	Medical Assisting Skills I	6
MAS 109	Medical Assisting Skills II	6
MAS 110	Medical Insurance Management	3
MAS 111	Administrative Practice Management	4
MAS 112	Human Diseases	5
MAS 117	Medical Assisting Externship	8
MAS 118	Medical Assisting Seminar	4
MAS 151	ICD9 Coding I	3
MAS 152	ICD Coding II	3
MAS 153	CPT Coding	2
Total Credit Hours Required for Graduation:		117

MEDICAL ASSISTING: DIPLOMA

Note: Information on the Medical Assisting program, including admission requirements can be found starting on page 113.

General Core Curriculum**Credit Hours: 15**

ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
PSY 101	Basic Psychology (Substituted for EMP 100)	5

Occupational Curriculum**Credit Hours: 69**

BUS 101	Document Processing	6
AHS 109	Medical Terminology for Allied Health Sciences	3
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	3
MAS 103	Pharmacology	5
MAS 106	Medical Office Procedures	5
MAS 108	Medical Assisting Skills I	6
MAS 109	Medical Assisting Skills II	6
MAS 110	Medical Insurance Management	3
MAS 111	Administrative Practice Management	4
MAS 112	Human Diseases	5
MAS 117	Medical Assisting Externship	8
MAS 118	Medical Assisting Seminar	5

Total Credit Hours Required for Graduation: 84

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.

Occupational Curriculum		Credit Hours
ENG 111	Business English	5
SCT 100	Introduction to Microcomputers	3
BUS 101	Document Processing	6
BUS 212	Anatomy and Terminology	5
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:		37

Note: The Medical Coding Certificate is only offered online.

OCCUPATIONAL THERAPY ASSISTANT: GUIDELINES

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 AOTA's 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 completion of academic preparation.

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.

Note: See below for additional program-specific admission requirements.

Occupational Therapy Assistant Program-Specific Admission Requirements

- 1) Achieve program ready status as demonstrated by placement scores.
- 2) Achieve satisfactory scores on the Health Occupation Aptitude Test. (HOAT)
- 3) Documentation of 30 to 40 hours of volunteer work in at least two different clinical sites and settings with an OTR or COTA supervision. A positive recommendation must be received from the supervising OTR or COTA.
- 4) Submit a student application for the OTA program.
- 5) Supply a brief two question autobiography including a description of why the student is interested in occupational therapy.
- 6) Student files must be complete with the above requirements by December 31 of the year prior to desired acceptance.
- 7) Students will be selected when the above requirements have been completed on a "first-come, first-serve" and space available policy.
- 8) Schedule a personal interview with the designated college official upon completion of the above requirements.

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 field work 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. A moderate amount of strength is needed for lifting and transferring patients, as well as assisting patients with his or her treatments. 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 his or her previous institution.
- 2) Transfer students must submit a letter of recommendation from a professor at his or her previous institution.
- 3) Transfer students may be required to document proficiency or repeat occupational therapy courses taken more than three years prior to admission to the OTA program.
- 4) Transfer students may be 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.
- 6) Prior OTA coursework will be evaluated for compatibility with Northwestern OTA curriculum.

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

Readmission

- 1) Only one readmission into the OTA Program is permitted.
- 2) After an unsuccessful OTA course, students are required to wait until that OTA course is taught again.
- 3) Students withdrawing or failing an OTA course and who are unable to complete the OTA course the next time the course is offered must be readmitted to the OTA Program and repeat all OTA coursework.
- 4) Students seeking readmission must meet all current admission requirements.
- 5) Classroom and fieldwork sites must be available.
- 6) Students must undergo a repeat drug screen during the quarter of readmission.
- 7) Students seeking readmission must be in good standing with the college and the OTA Program, i.e., no disciplinary or academic misconduct on record.

Specific Fieldwork Requirements

- 1) **Submit the results of a physical examination one month prior to Level I Fieldwork**, which will include immunizations, titers, TB skin test and a dental assessment.
- 2) Documentation of CPR certification prior to Level I Fieldwork.
- 3) Documentation of Liability insurance paid through Northwestern prior to Level I Fieldwork.
- 4) Completion of Health Stream, JCAHO (Joint Commission on Accreditation of Hospital Organization) requirement prior to Level I Fieldwork.
- 5) Completion of background check as required by Northwestern prior to Level I Fieldwork.
- 6) Clean drug screen test results as required by Northwestern prior to Level I Fieldwork. A drug screen may be required any time a student's behavior warrants.

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 AAS 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.

OCCUPATIONAL THERAPY ASSISTANT: AAS DEGREE

General Core Curriculum		Credit Hours: 45
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	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 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 90
AHS 109	Medical Terminology for Allied Health Sciences	3
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 Dysfunction 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:		135

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 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.

Note: Students will be required to purchase mandatory uniform and minimal supplies for the Patient Care Technician program. Students entering the Patient Care Technician program are required to complete a standardized physical examination, drug screen, background check, Health Stream Orientation, CPR Certification and pay liability insurance prior to having physical contact with patients. Each student will be given a physical form from the instructor in the CNA 100 or NSG 110 course.

Occupational Curriculum		Credit Hours
CNA 100	Certified Nursing Assistant	8
	OR	
NSG 110	Nursing Fundamentals	10
BUS 212	Anatomy and Terminology	5
AHS 104	Introduction to Allied Health	3
Total Credit Hours Required for Graduation:		16 - 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 1012	Foundations of 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
PHR 100	Pharmaceutical Calculations	5
PHR 102	Principles of Dispensing Medicines	6
DIS 150	Directed Independent Study	3
Total Credit Hours Required for Graduation:		37

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

PHARMACY TECHNOLOGY: AAS 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.

General Core Curriculum		Credit Hours: 30
ECO 191	Principles of Economics	5
	OR	
ECO 193	Macroeconomics	5
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	
PSY 191	Introductory Psychology	5
SPC 191	Fundamentals of Speech	5
MAT 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 66
AHS 105	Basic Inorganic Chemistry	4
AHS 109	Medical Terminology for Allied Health	3
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	6
PHR 103	Principles of Sterile Medication Preparation	6
PHR 104	Pharmacology	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:		96

PHARMACY TECHNOLOGY: DIPLOMA

The Pharmacy Technology Certificate Diploma is designed to enable the student to acquire the knowledge, skills and attitudes for employment within a pharmacy. Program graduates will be able to perform a variety of technical duties related to preparing and dispensing drugs in accordance with standard procedures and laws under the supervision of a registered pharmacist. A variety of clinical experiences is designed to integrate theory and practice. Graduates will be employable as an entry level pharmacy 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.

General Core Curriculum		Credit Hours: 15
ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
PSY 101	Basic Psychology	5

Occupational Curriculum		Credit Hours: 61
SCT 100	Introduction to Microcomputers	3
AHS 101	Anatomy and Physiology	5
AHS 105	Basic Inorganic Chemistry	4
AHS 109	Medical Terminology for Allied Health	3
PHR 100	Pharmaceutical Calculations	5
PHR 101	Pharmacy Technology Fundamentals	5
PHR 102	Principles of Dispensing Medications	6
PHR 103	Principles of Sterile Medication Preparation	6
PHR 104	Pharmacology	5
PHR 105	Pharmacy Technology Practicum	7
PHR 106	Advanced Pharmacy Technology Principles	5
PHR 107	Advanced Pharmacy Technology Practicum	7

Total Credit Hours Required for Graduation:	66
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BUS 212 = to
AHS 109

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 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

Note: Students will be required to purchase mandatory uniform and minimal supplies for the Phlebotomy program, along with completing a CPR course. Students entering the Phlebotomy program are required to complete a standardized physical examination, drug screen, background check, Health Stream Orientation and pay liability insurance prior to having physical contact with patients. Each student will be given a physical form from the instructor in the PHL 103 course.

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.

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

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

PRACTICAL NURSING (PN) GUIDELINES

The Practical Nursing (PN) 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 PN diploma and have the qualifications of an entry-level practical nurse.

Admission Requirements for the PN 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 PN 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 PN program. They may be evaluated and revised as necessary by faculty and administration.

All applicants to the PN 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.
 - Compass Testing: Writing: 23, Reading: 70, Pre-Algebra: 39
 - 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 learning support or provisional admission status to the college and be placed in one or more learning support classes.

- 4) Submit official high school and college transcript or GED test results to the college.
- 5) Submit a student application for the PN program.
- 6) Complete learning support coursework as determined by testing (see above)
- 7) Submit two personal references.
- 8) Take the nursing entrance examination and score at least 40th percentile or above. If after a third attempt at the entrance examination you have not achieved a score of at least 40, you will need to make an appointment with you advisor.
- 9) Students will be selected when the above requirements have been completed on a "first come, first served" and space available basis.
- 10) Attend the PN program orientation after acceptance and prior to the first nursing course.
- 11) GPA of 3.0 on all core curriculum which includes all of the following: ENG111, MAT101, PSY191, SCT100, BUS212, AHS101, AHS103, and AHS104.

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 his or her 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.

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

- a) Student's personal health assessment
- b) Physician's assessment of student's physical examination
- c) Documentation of tetanus/diphtheria booster
- d) Documentation of MMR immunization dates
- e) Documentation of PPD with test results (or chest x-ray if previous positive PPD)
- f) Documentation of MMR titer with test results
- g) Documentation of HIB series immunizations (or HIB titer if series completed in the past, or signed refusal regarding HIB series)
- h) Documentation of Varicella (chickenpox) titer with test results
- i) Copy of CPR certification
- j) Copy of student liability insurance receipt
- k) Dentist's assessment of student's dental examination
- l) Copy of student's criminal background check

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 85% 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 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 \$17.

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.

Essential Requirements for Nursing

All candidates for the practical nursing program must meet intellectual, physical, and social core performance standards necessary to provide safe patient care in an independent manner. The areas below include examples of necessary activities and skills but are not all-inclusive.

- 1) Critical Thinking:** Critical thinking ability sufficient for clinical judgment. Examples include identification of cause/effect relationships in clinical situations, development of care plans, transferring knowledge from one situation to another, evaluate outcomes, problem solve, prioritize, use short and long term memory.
- 2) Interpersonal:** Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural and intellectual backgrounds. Examples include establishing rapport with patients/clients, families, and colleagues, negotiation of interpersonal conflict, and respect of cultural diversity.
- 3) Communication:** Communication abilities sufficient for verbal and written interaction with others. Examples include explanation of treatment procedures, initiation of health teaching, documentation and interpretation of nursing actions and patient/client responses, and written and oral reports to other health care professionals.
- 4) Mobility:** Physical abilities sufficient for movement from room to room and in small spaces. Examples include moving around in a patient's room, work spaces and treatment areas; administration of cardiopulmonary procedures such as resuscitation; sitting or standing and maintaining balance for long periods; twisting, bending, stooping; moving quickly in response to possible emergencies; pushing, pulling, lifting or supporting a dependent adult patient; squeezing with hands and fingers; and repetitive movements.
- 5) Motor Skills:** Gross and fine motor abilities sufficient for providing safe, effective nursing care. Examples include calibration and use of equipment, positioning of dependent adult patients/clients, grasping and manipulation of small objects/instruments, using a computer keyboard, and writing with a pen.
- 6) Hearing:** Auditory ability sufficient for monitoring and assessing health needs. Examples include hearing monitor and pump alarms, emergency signals fire alarms, auscultatory sounds and cries for help.

7) Visual: Visual ability sufficient for observation and assessment necessary in nursing care. Examples include observation of patient/client responses such as respiratory rate and depth, skin color, and other physical signs; visualization of monitors, watches with second hands, medication labels and vials, and increments on a medication syringe; visualization of objects from twenty inches to twenty feet away; use of depth perception and peripheral vision; distinguishing colors; and reading written documents.

8) Tactile: Tactile ability sufficient for physical assessment. Examples include performance of palpation, functions of physical examination (such as discrimination of pulses and detection of temperature), and functions related to therapeutic intervention (such as insertion of a catheter).

9) Emotional: Emotional stability sufficient to tolerate rapidly changing conditions and environmental stress. Examples include establishment of

PRACTICAL NURSING (PN) DIPLOMA (CONTINUED)

therapeutic interpersonal boundaries, providing patients/clients with emotional support, adapting to changing conditions in the work environment and stress, dealing with unexpected or unpredictable events, maintaining focus on task, performing multiple tasks concurrently, and being able to handle strong emotions.

Taken from Southern Council on Collegiate Education for Nursing (1993, reapproved 2004) and National Council of State Boards of Nursing, Inc: Guidelines for Using Results of Functional Abilities Studies and Other Resources (1999).

Work Environment Associated Risks

These include

- 1) Handling sharp instruments.
- 2) Exposure to infections (communicable diseases).
- 3) Strains (heavy lifting).
- 4) Exposure to latex.

OSHA Risk Factor - Category A

Includes

- 1) Exposure to blood and other body fluids.
- 2) Exposure to noxious smell, either toxic or non-toxic.
- 3) 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.

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.

General Core Curriculum**Credit Hours: 15**

ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
PSY 101	Basic Psychology	5

Occupational Curriculum**Credit Hours: 82**

SCT 100	Introduction to Microcomputers	3
AHS 109	Medical Terminology for Allied Health Sciences	3
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:**97**

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. His or her 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 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.

Surgical Technology Admission Requirements

- 1) Completion of application and related procedures.
- 2) Health Occupation Aptitude (HOAT) Exam.
- 3) Submission of an autobiography.
- 4) Documentation of a physical examination and immunization records.
- 5) Ability to comply with health related standards and meet essential skill requirements.
- 6) Liability insurance payment.
- 7) CPR certification.
- 8) Background Check

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.

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

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.

SURGICAL TECHNOLOGY: AAS DEGREE

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

General Core Curriculum		Credit Hours: 45
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	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 1111	College Algebra	5
Occupational Curriculum		Credit Hours: 64
AHS 109	Medical Terminology for Allied Health Sciences	3
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:		109

SURGICAL TECHNOLOGY: DIPLOMA

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

General Core Curriculum		Credit Hours: 15
ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
PSY 101	Basic Psychology	5
Core Occupational Curriculum		Credit Hours: 72
AHS 109	Medical Terminology for Allied Health Sciences	3
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:		87

HUMAN SERVICES

PROGRAM DESCRIPTIONS AND REQUIREMENTS

CHILD DEVELOPMENT ASSOCIATE: CERTIFICATE

The Child 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.

Occupational Curriculum		Credit Hours
ECE 101	Introduction to Early Childhood Care and 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, foiling, permanent waving, 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 16 or more years of age; 2) Documentation of high school graduation or completion of GED prior to program completion; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

General Core Curriculum		Credit Hours: 16
EMP 100	Interpersonal Relations and Professional Development	3
ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
SCT 100	Introduction to Microcomputers	3

Occupational Curriculum		Credit Hours: 66
COS 100	Introduction to Cosmetology Theory	5
COS 101	Introduction to Permanent Waving and Relaxing	4
COS 103	Basic Creative Treatment of Hair, Scalp and Skin	3
COS 105	Introduction to Shampooing and Styling	4
COS 106	Introduction to Haircutting	3
COS 107	Advanced Haircutting	2
COS 108	Permanent Waving and 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	Cosmetology Practicum I	5
COS 114	Cosmetology Practicum II	8
COS 115	Cosmetology Practicum III	5
COS 116	Cosmetology Practicum IV	5
COS 117	Salon Management	4
Total Credit Hours Required for Graduation:		82

CRIME SCENE INVESTIGATION: CERTIFICATE

The Crime Scene Investigation program, which can be completed in as few as three quarters, is a sequence of courses that will prepare the student to work in a number of law enforcement and investigative agencies. Students will learn the basics of how to identify, gather, process, and report on evidence in a criminal investigation. Among the skills students will gain are basic crime scene investigation, including print lifting and evidence gathering, interview and interrogation techniques, report writing, case preparation, courtroom testimony and procedural guidelines.

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.

Occupational Curriculum		Credit Hours
CRJ 101	Introduction to Criminal Justice	5
FST 210	Crime Scene Investigation I	5
	OR	
CRJ 162	Methods of Criminal Investigations	5
FST 211	Crime Scene Investigation II	5
FST 212	Interviewing & Interrogation Techniques	5
FST 214	Documentation & Report Writing	5
FST 215	Case Preparation & Courtroom Testimony	5
FST 230	Criminal Procedure	5
	OR	
CRJ 105	Criminal Procedure	5
Total Credit Hours Required for Graduation		35

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.

Occupational Curriculum		Credit Hours
SCT 100	Introduction to Microcomputers	3
CRJ 101	Introduction to Criminal Justice	5
BUS 101	Document Processing	6
MSD 103	Leadership	5
MSD 156	Supervision in a Service Environment	5
	OR	
MSD 101	Organizational Behavior	5
MSD 175	Business Spanish	5
	OR	
ENG 111	Business English	5
Total Credit Hours Required for Graduation:		29

CRIMINAL JUSTICE TECHNOLOGY: AAS DEGREE

The Criminal Justice Program gives students the knowledge, skills, and attitudes to succeed in the criminal justice field. Graduates 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 this 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 his or her 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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communications	5
PSY 191	Introductory Psychology	5
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
Occupational Curriculum		Credit Hours: 48
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 168	Criminal Law	5
CRJ 202	Constitutional Law	5
CRJ 207	Juvenile Justice	5
CRJ 209	Criminal Justice Internship	5
CRJ 212	Ethics in Criminal Justice	5
Occupationally Related Electives		Credit Hours: 20
(Approved by the Advisor)		20
Total Credit Hours Required for Graduation:		98

CRIMINAL JUSTICE TECHNOLOGY: 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 his or her 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.

General Core Curriculum		Credit Hours: 15
ENG 101	English	5
PSY 101	Basic Psychology	5
MAT 1012	Foundations of Mathematics	5
Occupational Curriculum		Credit Hours: 48
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 168	Criminal Law	5
CRJ 202	Constitutional Law	5
CRJ 207	Juvenile Justice	5
CRJ 209	Criminal Justice Internship	5
CRJ 212	Ethics in Criminal Justice	5
Occupationally Related Electives (Approved by the Advisor)		Credit Hours: 10 10
Total Credit Hours Required for Graduation:		73

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

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

EARLY CHILDHOOD CARE AND EDUCATION: AAS 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 three 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. Graduates specializing in exceptionalities will be provided with guidelines, information, responsibilities and techniques necessary to interact in the exceptional environment. Therefore, prospective students must present a satisfactory criminal record check conducted within the past year.

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.

General Core Curriculum

Credit Hours: 30

ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communications	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5

Occupational Curriculum

Credit Hours: 69-73

ECE 101	Introduction to Early Childhood Care and 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 Care & Education Practicum I	3
	OR	
	Electives (See advisor for approved list)	5
ECE 122	Early Childhood Care & Education Practicum II	3
	OR	
	Program Elective	5

EARLY CHILDHOOD CARE AND EDUCATION: AAS DEGREE (CONTINUED)

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

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

Specialization III**Early Childhood Exceptionalities Specialization****Credit Hours: 15**

ECE 260	Characteristics of Young Children With Exceptionalities	5
ECE 262	Classroom Strategies and Intervention	5
ECE 264	Exploring Your Role in the Exceptional Environment	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 his or her 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.

General Core Curriculum		Credit Hours: 13
ENG 101	English	5
EMP 100	Interpersonal Relations and Professional Development	3
MAT 1012	Foundations of Mathematics	5
Occupational Curriculum		Credit Hours: 60-64
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 202	Social Issues and Families	5
ECE 224	Early Childhood Education Internship	12
Total Credit Hours Required for Graduation:		73-77

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 EXCEPTIONALITIES: CERTIFICATE

The Early Childhood Exceptionalities Certificate will provide a solid foundation for Early Childhood Care and Education students in developing the skills, attitudes, and techniques that will provide the quality of care for children with special needs.

Admission requirements: 1) Attainment of 19 or more years of age or permission of program director; 2) achievement of program ready or provisional scores on the placement test; 3) completion of general admission, and 4) post-secondary credentials from an accredited institution, or a current Child Development Associate (CDA) certificate, or qualifying experience pending approval of the program director.

Occupational Curriculum		Credit Hours
ECE 103	Human Growth & Development I	5
ECE 203	Human Growth and Development II	5
ECE 201	Exceptionalities	5
ECE 260	Characteristics of Young Children With Exceptionalities	5
ECE 262	Classroom Strategies and Intervention	5
ECE 264	Exploring Your Role in the Exceptional Environment	5
Total Credit Hours Required for Graduation:		30

**EARLY CHILDHOOD PARAPROFESSIONAL SPECIALIZATION:
CERTIFICATE**

The Early Childhood Paraprofessional Specialization Certificate provides students with the knowledge, skills, and attitudes necessary to work effectively with school-age children. Competencies are aligned with TCSG standards and the Georgia Professional Standards Commission. Students who graduate from this certificate are employable in before- and after-school programs, summer camp/recreation programs, and public and private community based youth programs.

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.

Occupational Curriculum		Credit Hours: 30
ECE 201	Exceptionalities	5
ECE 202	Social Issues and Family Involvement	5
ECE 203	Human Growth and Development II	5
ECE 211	Methods and Materials	5
ECE 212	Professional Practices	5
	Elective (See advisor)	5
Total Credit Hours Required for Graduation:		30

EARLY CHILDHOOD PROGRAM ADMINISTRATION: CERTIFICATE

The purpose of the Early Childhood Program Administration Technical Certificate program is to provide the necessary skills to administer and manage a child-care business anywhere in Georgia, and to provide a career path for people working in the field who wish to move into administration.

Admission requirements: 1) Attainment of 21 or more years of age; 2) achievement of program ready or provisional scores on the placement test; 3) completion of general admission, and 4) post-secondary credentials from an accredited institution, or a current Child Development Associate (CDA) certificate, or qualifying experience pending approval of the program director.

Occupational Curriculum		Credit Hours
ECE 217	Day Care Administration	5
ECE 221	Child Care Facility Management	5
ECE 222	Child Care Personnel Management	5
Total Credit Hours Required for Graduation:		15

NAIL TECHNICIAN: CERTIFICATE

The Nail Technician Certificate program is a sequence of courses that prepares students for careers in the field of Nail Technician. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes specialized training in safety, sanitation, state laws, rules and regulations, nail diseases and disorders, skin and nail care, and work ethics. The curriculum meets state licensing requirements of the State Board of Cosmetology. Program graduates receive a Nail Technician certificate and are employable as a Nail 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.

Occupational Curriculum		Credit Hours
COS 100	Introduction to Cosmetology Theory	5
COS 112	Manicuring and Pedicuring	3
COS 117	Salon Management	4
COS 118	Nail Care I	7
COS 119	Nail Care II	9
Total Credit Hours Required for Graduation:		28

SHAMPOO TECHNICIAN: CERTIFICATE

The Shampoo Technician Certificate prepares students for careers in the field of Cosmetology as Shampoo Technicians and to also be employable as a Cosmetology salesperson salon manager or salon owner. This program emphasizes specialized training for safety, sanitation, state laws, rules and regulations, chemistry, anatomy and physiology, skin, hair, hair treatments and manipulations, hair styling, artificial hair, braiding/ intertwinning hair, reception sales, management, employability skills, and work ethics.

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.

Occupational Curriculum		Credit Hours
COS 100	Introduction to Cosmetology Theory	5
COS 103	Basic Creative Treatment of Hair, Scalp and Skin	3
COS 105	Introduction to Shampooing and Styling	4
COS 117	Salon Management	4
Total Credit Hours Required for Graduation:		16

SOCIAL WORK ASSISTANT: AAS DEGREE

The Social Work Assistant Program is designed to prepare individuals to obtain entry-level employment in public and private social service agencies. The social worker assistant is equipped with the skills, knowledge, values, and sensitivity to effectively serve human needs in a variety of community settings. Students have the option to select courses that will prepare them to provide client services, as well as support for families in a variety of fields, such as psychology, rehabilitation, and social work. They may assist clients in identifying social and community services that will best assist them. They may assist the social worker in developing, organizing, and conducting programs to resolve problems relevant to human relations, substance abuse, adult daycare, and rehabilitation.

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.

General Core Curriculum		Credit Hours: 38
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
ENG 195	Technical Communication	5
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
SOC 191	Introduction to Sociology	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
SCT 100	Introduction to Microcomputers	3
Occupational Curriculum		Credit Hours: 66
SWG 100	Introduction to Social Services	5
SWG 101	Introduction to Social Work	5
SWG 102	Human Behavior and Social Environment	5
SWG 103	Social Work Methods and Procedures	5
SWG 104	Basic Interviewing and Counseling Skills	5
SWG 105	Abnormal Behavior	5
SWG 200	Special Problems with Youth	5
SWG 201	Adolescent Life Cycle	5
SWG 202	Field Work Experience I	8
SWG 203	Field Work Experience II	8
SWG 204	Social Policies and Programs for the Aging	5
SWG 205	Group Work Intervention	5
Total Credit Hours Required for Graduation:		104

SOCIAL WORK ASSISTANT: DIPLOMA

The Social Work Generalist Diploma Program is designed to prepare individuals to obtain entry-level employment in public and private social service agencies. The social worker assistant is equipped with the skills, knowledge, values, and sensitivity to effectively serve human needs in a variety of community settings. Students have the option to select courses that will prepare them to provide client services, as well as support for families in a variety of fields, such as psychology, rehabilitation, and social work. They may assist clients in identifying social and community services that will best assist them. They may assist the social worker in developing, organizing, and conducting programs to resolve problems relevant to human relations, substance abuse, adult daycare, and rehabilitation.

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.

General Core Curriculum		Credit Hours: 18
ENG 111	Business English	5
MAT 1012	Foundations of Mathematics	5
PSY 101	Basic Psychology	5
SCT 100	Introduction to Microcomputers	3
Occupational Curriculum		Credit Hours: 66
SWG 100	Introduction to Social Services	5
SWG 101	Introduction to Social Work	5
SWG 102	Human Behavior and Social Environment	5
SWG 103	Social Work Methods and Procedures	5
SWG 104	Basic Interviewing and Counseling Skills	5
SWG 105	Abnormal Behavior	5
SWG 200	Special Problems with Youth	5
SWG 201	Adolescent Life Cycle	5
SWG 202	Field Work Experience I	8
SWG 203	Field Work Experience II	8
SWG 204	Social Policies and Programs for the Aging	5
SWG 205	Group Work Intervention	5
Total Credit Hours Required for Graduation:		84

INDUSTRIAL TECHNOLOGY

PROGRAM DESCRIPTIONS AND REQUIREMENTS

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 prior to program completion; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

General Core Curriculum		Credit Hours: 13
ENG 100	English	5
MAT 1012	Foundations of 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

AUTOMOTIVE TECHNOLOGY: AAS DEGREE

The Automotive Technology Program prepares students for careers in the automotive service and repair profession. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment.

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.

General Core Curriculum		Credit Hours: 33
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
ENG 195	Technical Communications	5
	OR	
SPC 191	Fundamentals of Speech	5
PSY 191	Introductory Psychology	5
	OR	
ECO 191	Principles of Economics	5
MAT 1111	College Algebra	5
	OR	
MAT 1101	Mathematical Modeling	5
PHY 190	Introductory Physics	5
SCT 100	Introduction to Microcomputers	3
Occupational Curriculum		Credit Hours: 87
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 124	Battery Starting and Charging Systems	4
AUT 126	Engine Principles of Operation and Repair	6
AUT 128	Fuel, Ignition, and Emission Systems	7
AUT 130	Automotive Brake Systems	4
AUT 132	Suspension and Steering Systems	4
AUT 134	Drivelines	4
AUT 138	Manual Transmission/Transaxle	4
AUT 140	Electronic Engine Control Systems	7
AUT 142	Climate Control Systems	6
AUT 144	Introduction to Automatic Transmission Diagnosis	4
AUT 210	Automatic Transmission Repair	7
AUT 212	Advanced Electronic Transmission Diagnosis	3
AUT 214	Advanced Electronic Brake System Diagnosis	4

AUTOMOTIVE TECHNOLOGY: AAS DEGREE (CONTINUED)

Occupational Curriculum		Credit Hours: 87
AUT 216	Advanced Electronic Controlled Suspension and Steering Systems	4
AUT 218	Advanced Electronic Engine Control Systems	4
AUT 220	Automotive Technology Internship	6
Total Credit Hours Required for Graduation:		120

AUTOMOTIVE TECHNOLOGY: DIPLOMA

The Automotive Technology Program prepares students for careers in the automotive service and repair profession. The program emphasizes a combination of automotive mechanics theory and practical application necessary for successful employment.

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

General Core Curriculum		Credit Hours: 16
ENG 101	English	5
MAT 1012	Foundations of Mathematics	5
EMP 100	Interpersonal Relations and Professional Development	3
SCT 100	Introduction to Microcomputers	3
Occupational Curriculum		Credit Hours: 87
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 124	Battery Starting and Charging Systems	4
AUT 126	Engine Principles of Operation and Repair	6
AUT 128	Fuel, Ignition, and Emission Systems	7
AUT 130	Automotive Brake Systems	4
AUT 132	Suspension and Steering Systems	4
AUT 134	Drivelines	4
AUT 138	Manual Transmission/Transaxle	4
AUT 140	Electronic Engine Control Systems	7
AUT 142	Climate Control Systems	6
AUT 144	Introduction to Automatic Transmission Diagnosis	4
AUT 210	Automatic Transmission Repair	7
AUT 212	Advanced Electronic Transmission Diagnosis	3
AUT 214	Advanced Electronic Brake System Diagnosis	4
AUT 216	Advanced Electronic Controlled Suspension and Steering Systems	4
AUT 218	Advanced Electronic Engine Control Systems	4
AUT 220	Automotive Technology Internship	6
Total Credit Hours Required for Graduation:		103

**AUTOMOTIVE AUTOMATIC TRANSMISSION/
TRANSAXLE TECHNICIAN: CERTIFICATE**

The Automotive Automatic Transmission/Transaxle Technician certificate program prepares graduates for entry-level employment in automatic transmissions/transaxle repair. The program emphasizes a combination of automotive mechanics theory and practical application in the areas of automatic transmissions/transaxle power flow, fundamental hydraulic circuitry, electrical circuitry, testing procedures, diagnostic techniques, in car repair and service procedures, and overhaul procedures.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 144	Introduction to Automatic Transmission Diagnosis	4
AUT 210	Automatic Transmission Repair	7
AUT 212	Advanced Electronic Transmission Diagnosis	3
Total Credit Hours Required to Graduate:		23

AUTOMOTIVE BRAKE TECHNICIAN: CERTIFICATE

The Automotive Brake Technician certificate program prepares graduates for entry-level employment as an automotive brake technician. The program emphasizes a combination of automotive mechanics theory and practical application in such areas as hydraulics fundamentals, braking systems operation, drum brakes, disc brakes, power assisted brakes, anti-lock braking systems, brake system diagnostics, brake system repair, and brake system servicing.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 130	Automotive Brake Systems	4
AUT 214	Advanced Electronic Brake System Diagnosis	4
Total Credit Hours Required to Graduate:		17

**AUTOMOTIVE ELECTRICAL/ELECTRONIC
SYSTEMS TECHNICIAN: CERTIFICATE**

The Automotive Electrical/Electronic Systems Technician is designed to provide students with entry-level skills to enter the automotive field as Auto Electrical Technician Specialist. Program introduces electrical theory and its application to automotive systems. Basic principles, diagnosis and service/repair of batteries, starting systems, starting system components, alternators and regulators are emphasized.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 124	Battery Starting and Charging Systems	4
SCT 100	Introduction to Microcomputers	3
Total Credit Hours Required to Graduate:		16

AUTOMOTIVE ENGINE PERFORMANCE TECHNICIAN: CERTIFICATE

The Automotive Engine Performance Technician is designed to train students for entry-level employment in the automotive industry to specifically diagnose, repair and service automotive engines.

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.

Occupational Curriculum		Credit Hours
AUT 128	Fuel, Ignition, and Emission Systems	7
AUT 140	Electronic Engine Control Systems	7
AUT 218	Advanced Electronic Engine Control Systems	4
Total Credit Hours Required to Graduate:		18

AUTOMOTIVE ENGINE REPAIR TECHNICIAN: CERTIFICATE

The Automotive Engine Repair Technician is designed to provide students with entry-level skills to enter the automotive industry in the engine repair speciality. Students will learn basic shop safety and basic engine diagnosis and repair.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 126	Engine Principles of Operation and Repair	6
Total Credit Hours Required to Graduate:		15

**AUTOMOTIVE HEATING AND
AIR CONDITIONING TECHNICIAN: CERTIFICATE**

The Automotive Heating and Air Conditioning Technician certificate program prepares graduates for entry-level employment automotive heating and air conditioning technicians. The program emphasizes a combination of theory, diagnosis, servicing, and repair of automotive heating and air conditioning systems.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 142	Climate Control Systems	6
Total Credit Hours Required to Graduate:		15

**AUTOMOTIVE MANUAL DRIVE TRAIN/
AND AXLE REPAIR TECHNICIAN: CERTIFICATE**

The Automotive Manual Drive Train and Axle Repair Technician certificate program is designed to provide students with entry-level skills to enter the automotive industry as manual Drive Train and Axle Repair Technician Specialists. The program introduces fundamental principles of clutch operations, diagnosis of malfunctions, testing procedures and repair, fundamentals of manual transmission/transaxle operations, diagnostic techniques and repair measures, fundamental theory, diagnosis, service and repair of universal joints, differentials, final drives and shafts.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 134	Drivelines	4
AUT 138	Manual Transmission/Transaxle	4
Total Credit Hours Required to Graduate:		17

**AUTOMOTIVE SUSPENSION AND
STEERING TECHNICIAN: CERTIFICATE**

The Automotive Suspension and Steering Technician certificate program prepares graduates for entry-level employment as an automotive suspension and steering technician. The program emphasizes a combination of automotive mechanics theory and practical application in such areas as chassis types, chassis components, steering and suspension systems; steering and suspension operation, design, service, repair, alignment, and problem solving.

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.

Occupational Curriculum		Credit Hours
AUT 120	Introduction to Automotive Technology	3
AUT 122	Electrical and Electronic Systems	6
AUT 132	Suspension and Steering Systems	4
AUT 216	Advanced Electronic Controlled Suspension and Steering Systems	4
Total Credit Hours Required to Graduate:		17

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 seven 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 a 240 contact hour program offered in an eight-week 8 a.m. to 2:30 p.m. Monday through Friday class, a ten-week 5:30 p.m. to 11:30 p.m. Monday through Thursday class, and a ten-week 8 a.m. to 8:30 p.m. Saturday and Sunday class. Each student will receive a minimum of 44 hours behind-the-wheel training including 12 hours road training, 12 hours of range training, and a combination of 20 hours on the road and range driving. The CTD program is comprised of the following courses:

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

DRAFTING TECHNOLOGY: AAS 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.

General Core Curriculum		Credit Hours: 35
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
ENG 195	Technical Communications	5
	OR	
SPC 191	Fundamentals of Speech	5
MAT 1111	College Algebra	5
MAT 1113	Pre-Calculus	5
PSY 191	Introduction to Psychology	5
PHY 190	Introductory Physics	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	3-D Drawing and Modeling	6
SCT 100	Introduction to Microcomputers	3
<i>Choose one of the following areas of specialization:</i>		
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 (See advisor for approved list)	5

DRAFTING TECHNOLOGY: AAS DEGREE (CONTINUED)

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 (See advisor for approved list)	11
Total Credit Hours Required for Graduation:		96

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DRAFTING TECHNOLOGY: 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.

Occupational Curriculum		Credit Hours
MAT 1012	Foundations of 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

DRAFTING TECHNOLOGY: 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.

Occupational Curriculum		Credit Hours
DDS 205	Residential Architectural Drawing I	6
DDS 207	Mechanical Systems for Architecture	3
DDS 208	Residential Architectural Drawing II	6
Total Credit Hours Required for Graduation:		15

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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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

General Core Curriculum		Credit Hours: 13
ENG 101	English	5
MAT 1013	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
	Electives (See advisor for approved list)	3
Total Credit Hours Required for Graduation		78-81

**ELECTRICAL CONTROL SYSTEMS: INDUSTRIAL
ELECTRICIAN: CERTIFICATE**

The Industrial Electrician Certificate program prepares students for employment using basic electrical maintenance skills. This program will provide knowledge, understanding and skills in the occupational areas of industrial safety, direct current, alternating current and industrial wiring.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

Admission requirements: 1) Attainment of 16 or more years of age; 2) Documentation of high school graduation or completion of GED prior to program completion; 3) achievement of program ready or provisional scores on the placement test; (Admission testing is not required if a candidate has sufficient in field experience and instructor approval) and 4) completion of general admission.

Occupational Curriculum		Credit Hours
IDS 103	Industrial Wiring	6
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
Total Credit Hours Required for Graduation:		16

**ELECTRICAL CONTROL SYSTEMS: INDUSTRIAL MOTOR
CONTROL TECHNICIAN: CERTIFICATE**

The Industrial Motor Control Technician Certificate is designed to offer industrial motor controls training. This program provides instruction in DC and AC motors, basic and advanced motor controls and variable speed drives.

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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

Occupational Curriculum		Credit Hours
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
Total Credit Hours Required for Graduation:		16

**ELECTRICAL CONTROL SYSTEMS: INDUSTRIAL SYSTEMS
TECHNICIAN: CERTIFICATE**

The Industrial Systems Technician Certificate prepares students for employment in a variety of positions in today's industrial systems production equipment maintenance field. The program provides learning opportunities that introduce, develop and reinforce academic and technical knowledge, skills and attitudes required for job acquisition, retention and advancement. Graduates of the program are qualified as industrial systems technicians.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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.

Occupational Curriculum		Credit Hours
IFC 100	Industrial Safety Procedures	2
IFC 101	Direct Current Circuits I	4
IFC 102	Alternating Current I	4
MAT 1013	Algebraic Concepts	5
SCT 100	Introduction to Microcomputers	3
Total Credit Hours Required for Graduation:		18

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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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.

This program is no longer accepting new students.

Occupational Curriculum		Credit Hours
IDS 110	Fundamentals of Motor Controls	3
IDS 113	Magnetic Starters and Braking	3
IDS 141	Basic Industrial PLC's	6
IDS 142	Industrial PLC's	6
Total Credit Hours Required for Graduation:		18

**ELECTRICAL CONTROL SYSTEMS, PROGRAMMABLE CONTROL
TECHNICIAN I: CERTIFICATE**

Programmable Control Technician I is designed to offer specialized programmable controller training to qualified industrial technicians, this program consists of instruction selected for the Industrial Systems Technology diploma program. Course work addresses operational theory, systems terminology, and field wiring/installation. It also develops operational skills in the use of PLC equipment and peripheral devices with emphasis on Programmable Logic Controller programming, installations, and troubleshooting/repair.

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.

Occupational Curriculum		Credit Hours
IFC 100	Industrial Safety Procedures	2
IDS 110	Fundamentals of Motor Controls	3
IDS 141	Basic Industrial PLC's	6
IDS 142	Industrial PLC's	6
Total Credit Hours Required for Graduation:		17

ELECTRONICS TECHNOLOGY, COMPUTER SERVICING: AAS 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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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.

General Core Curriculum		Credit Hours: 30
ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communication	5
MAT 1111	College Algebra	5
MAT 1113	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 Fundamentals	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

**ELECTRONICS TECHNOLOGY, COMPUTER SERVICING:
AAS DEGREE (CONTINUED)**

Computer Servicing Specialization		Credit Hours: 24-27
ELC 217	Computer Hardware	7
	OR	
CIS 122	Microcomputer 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 Concepts	6
ELC 286	CompTIA A+ Certification	5
	OR	
CIS 286	Preparation for A+ Certification	5
	Electives(See advisor for approved list)	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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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

General Core Curriculum		Credit Hours: 18
ENG 101	English	5
MAT 1013	Algebraic Concepts	5
MAT 1015	Geometry and Trigonometry	5
	OR	
MCH 105	Machine Tool Math II	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 Fundamentals	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	Microcomputer Installation and Maintenance	7
ELC 219	Networking I	4
	OR	
CIS 1140	Networking Fundamentals	6

**ELECTRONICS TECHNOLOGY, COMPUTER SERVICING:
DIPLOMA (CONTINUED)**

ELC 218	Operating Systems Technology OR	7
CIS 103	Operating Systems Concepts	6
ELC 286	CompTIA A+ Certification OR	5
CIS 286	Preparation for A+ Certification	5
	Electives (See advisor for approved list)	2
Total Credit Hours Required for Graduation:		89-92

ELECTRONICS TECHNOLOGY: 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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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

General Core Curriculum		Credit Hours: 18
ENG 101	English	5
MAT 1013	Algebraic Concepts	5
MAT 1015	Geometry and Trigonometry	5
	OR	
MCH 105	Machine Tool Math II	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 Fundamentals	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, INDUSTRIAL CONTROL: AAS 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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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.

General Core Curriculum**Credit Hours: 30**

ENG 191	Composition and Rhetoric	5
ENG 193	Literature and Composition	5
	OR	
HUM 191	Introduction to Humanities	5
	OR	
ART 191	Art Appreciation	5
	OR	
MUS 191	Music Appreciation	5
SPC 191	Fundamentals of Speech	5
	OR	
ENG 195	Technical Communication	5
MAT 1111	College Algebra	5
MAT 1113	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 Fundamentals	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

**ELECTRONICS TECHNOLOGY, INDUSTRIAL CONTROL: AAS DEGREE
(CONTINUED)**

Industrial Control Specialization		Credit Hours: 24-29
ELC 211	Process Control	6
	OR	
IDS 209	Industrial Implementation	6
ELC 212	Motor Controls	6
ELC 216	Robotics	2
	OR	
IDS 101	Industrial Computer Applications	5
ELC 213	Programmable Controllers	5
	OR	
IDS 141	Basic Industrial PLCs	6
ELC 214	Mechanical Devices	3
	OR	
IDS 113	Magnetic Starters and Breaking	3
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.

Note: In order to advance through the Electronics Technology, Electronics Fundamentals and Electrical Control Systems Programs, students must earn a "C" or better in all program courses to meet the Pre-requisite/co-requisite requirements for each course.

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

General Core Curriculum

		Credit Hours: 18
ENG 101	English	5
MAT 1013	Algebraic Concepts	5
MAT 1015	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 Fundamentals	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
	OR	
IDS 209	Industrial Implementation	6
ELC 212	Motor Controls	6
ELC 216	Robotics	2
	OR	
IDS 101	Industrial Computer Applications	5

**ELECTRONICS TECHNOLOGY, INDUSTRIAL CONTROL:
DIPLOMA (CONTINUED)**

Industrial Control Specialization		Credit Hours: 24-29
ELC 213	Programmable Controllers	5
	OR	
IDS 141	Basic Industrial PLCs	6
ELC 214	Mechanical Devices	3
	OR	
IDS 113	Magnetic Starters and Breaking	3
ELC 215	Fluid Power	3
	OR	
IDS 110	Fundamentals of Motor Control	3
Total Credit Hours Required for Graduation:		89-94

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 prior to program completion; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

Note: Students must have the physical capabilities sufficient to lift, carry, or move materials or equipment weighing up to 50 pounds in the Machine Tool lab.

General Core Curriculum		Credit Hours: 13
ENG 101	English	5
MAT 1012	Foundations of 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
MCA 211	CNC Fundamentals	7
SCT 100	Introduction to Microcomputers	3
	Electives(See advisor for approved list)	5
Total Credit Hours Required for Graduation:		85

MACHINE TOOL TECHNOLOGY: 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 the physical capabilities sufficient to lift, carry, or move materials or equipment weighing up to 50 pounds in the Machine Tool lab.

Occupational Curriculum		Credit Hours
MCA 211	CNC Fundamentals	7
MCA 213	CNC Mill Manual Programming	7
MCA 215	CNC Lathe Manual Programming	7
MCA 217	CNC Practical Applications	4
MCA 219	CAD/CAM Programming	6
	Electives (See advisor for approved list)	5
Total Credit Hours Required for Graduation:		36

MACHINE TOOL TECHNOLOGY: LATHE OPERATOR: CERTIFICATE

The 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) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Note: Students must have the physical capabilities sufficient to lift, carry, or move materials or equipment weighing up to 50 pounds in the Machine Tool lab.

Occupational Curriculum		Credit Hours
MCH 101	Introduction to Machine Tool	6
MCH 102	Blueprint Reading I	5
MCH 109	Lathe Operation I	6
MCH 110	Lathe Operation II	6
	Electives (See advisor for approved list)	5
Total Credit Hours Required for Graduation:		28

MACHINE TOOL TECHNOLOGY: MILL 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) achievement of program ready or provisional scores on the placement test; and 3) completion of general admission.

Note: Students must have the physical capabilities sufficient to lift, carry, or move materials or equipment weighing up to 50 pounds in the Machine Tool lab.

Occupational Curriculum		Credit Hours
MCH 101	Introduction to Machine Tool	6
MCH 102	Blueprint Reading I	5
MCH 115	Milling Operation I	6
MCH 116	Milling Operation II	6
	Electives (See advisor for approved list)	5
Total Credit Hours Required for Graduation:		28

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 prior to program completion; 3) achievement of program ready or provisional scores on the placement test; and 4) completion of general admission.

General Core Curriculum

ENG 100	English	5	Credit Hours: 13
MAT 1012	Foundations of Mathematics	5	
EMP 100	Interpersonal Relations and Professional Development	3	

Occupational Curriculum

SCT 100	Introduction to Microcomputers	3	Credit Hours: 62
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		
	Electives (See advisor for approved list)	5	

Total Credit Hours Required for Graduation: 75

WELDING AND JOINING TECHNOLOGY: CERTIFICATES

There are three certificate programs offered in Welding and Joining Technology. The Gas Metal Arc Welder Fabricator Certificate provides learning opportunities for individuals who need job-specific training in Gas Metal Arc Welder Fabricating. The Gas Tungsten Arc Welder Certificate provides learning opportunities for individuals who need job-specific training in Gas Tungsten Arc Welding. The Overhead Shielded Metal Arc Welding Certificate provides learning opportunities for individuals who need job-specific training in Overhead Shielded Metal Arc Welding. Flat Shielded Metal Arc Welder prepares students for careers in Shielded Metal Arc Welding.

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.

Note: The specific admission requirements for each certificate below are noted using the above numbers.

FLAT SHIELDED METAL ARC WELDER CERTIFICATE: (Admission Requirements: 1 and 3)

Occupational Curriculum		Credit Hours
WLD 100	Intro to Welding Technology	6
WLD 101	Oxyfuel Cutting	4
WLD 104	Shielded Metal Arc Welding I	6
Total Credit Hours Required for Graduation:		16

GAS METAL ARC WELDER FABRICATOR CERTIFICATE: (Admission Requirements: 1 and 3)

Occupational Curriculum		Credit Hours
WLD 100	Introduction to Welding Technology	6
WLD 101	Oxyfuel Cutting	4
WLD 109	Gas Metal Arc Welding	6
	Electives (See advisor for approved list)	3
Total Credit Hours Required for Graduation:		19

GAS TUNGSTEN ARC WELDER CERTIFICATE: (All Admission Requirements)

Occupational Curriculum		Credit Hours
WLD 100	Introduction to Welding Technology	6
WLD 101	Oxyfuel Cutting	4
WLD 110	Gas Tungsten Arc Welding	4
	Electives (See advisor for approved list)	3
Total Credit Hours Required for Graduation:		17

OVERHEADSHIELDED METAL ARC WELDER CERTIFICATE: (All Admission Requirements)

Occupational Curriculum		Credit Hours
WLD 105	Shielded Metal Arc Welding II	6
WLD 106	Shielded Metal Arc Welding III	6
WLD 107	Shielded Metal Arc Welding IV	6
Total Credit Hours Required for Graduation:		18

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.

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.

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.

ACC 104 - Computerized Accounting - Credit Hours: 3

Prerequisite: SCT 100, Grade of "C" or better in ACC 101; 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.

ACC 106 - Accounting Spreadsheet Fundamentals - Credit Hours: 3

Prerequisite: ACC 101, BUS 101, 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 spreadsheet. Topics include: spreadsheet creation, data entry, data entry modification, computation using functions, and program-related spreadsheet applications. Laboratory work includes theoretical and technical application

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.

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.

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.

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.

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.

ACT 100 - Refrigeration Fundamentals - Credit Hours: 4

Prerequisite: Program Admission

Introduces basic concepts and theories of refrigeration. Topics include the laws of thermodynamics, pressure and temperature relationships, heat transfer, the refrigeration cycle, and safety.

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.

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.

ACT 103 - Electrical Fundamentals - Credit Hours: 5

Prerequisite: Program Admission

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.

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.

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.

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.

ACT - 107 Air Conditioning Principles - Credit Hours: 8

Prerequisites/Corequisites: ACT 102, ACT 106, MAT 1012, 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.

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.

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.

ACT 110 - Gas Heating Systems - Credit Hours: 5

Prerequisites: ACT 102, ACT 106, MAT 1012

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.

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.

AHS 101 - Anatomy and Physiology - Credit Hours: 5

Prerequisite: Program Admission

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.

AHS 102 - Drug Calculation and Administration - Credit Hours: 3

Prerequisite: MAT 1012

Uses basic mathematical concepts and includes basic drug administration. Emphasizes critical thinking skills. Topics include systems of measurement, calculating drug problems, resource materials usage, basic pharmacology, administering medications in a simulated clinical environment, principles of IV therapy techniques and client education.

AHS 103 - Nutrition and Diet Therapy I - Credit Hours: 2

Prerequisite: AHS 101

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.

AHS 104 - Introduction to Health Care - Credit Hours: 3

Prerequisite: Program Admission

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.

AHS 105- Basic Inorganic Chemistry - Credit Hours: 4

Prerequisites/ Corequisite: MAT 1111

Introduces chemical concept principles, laws, and techniques applicable to the medical laboratory. Topics include laboratory safety, fundamental principles of chemistry, weight and measures, solutions, and basic laws of chemistry.

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.

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.

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.

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.

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.

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.

ART 191 - Art Appreciation - Credit Hours: 5

Prerequisite: ENG 191 with a C or better.

Explores the analysis of well-known works of visual arts, his or her composition, and the relationship to his or her periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research. Topics include the re-creative critical process, the themes of art, the formal elements of design, and the placing of art in the historical context, writing analysis, practice, revision, and research about a work of visual arts.

AUT 120 - Introduction to Automotive Technology - Credit Hours: 3

Prerequisite: Provisional admission.

Introduces basic concepts and practices necessary for safe and effective automotive shop operation. Topics include safety procedures; legal/ethical responsibilities; measurement; machining; hand tools; shop organization, management and work flow systems.

AUT 122 - Electrical and Electronic Systems - Credit Hours: 6

Prerequisite: AUT 120 with a "C" or better.

Introduces automotive electricity. Topics include general electrical system diagnosis; lighting system diagnosis and repair; gauges, warning devices, and driver information system diagnosis and repair; horn and wiper/washer diagnosis and repair; accessories diagnosis and repair.

AUT 124 - Battery, Starting, and Charging Systems - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Emphasizes the basic principles, diagnosis, and service/repair of batteries, starting systems, starting system components, alternators, and regulators. Topics include battery diagnosis and service; starting system diagnosis and repair; charging system diagnosis and repair.

AUT 126 - Engine Principles of Operation and Repair - Credit Hours: 6

Prerequisite: AUT 120 with a "C" or better.

Introduces automotive engine theory and repair, placing emphasis on inspection, testing, and diagnostic techniques. Topics include general diagnosis; removal and reinstallation; cylinder heads and valve trains diagnosis and repair; engine blocks assembly diagnosis and repair; lubrication and cooling systems diagnosis and repair.

AUT 128 - Fuel, Ignition, and Emission Systems - Credit Hours: 7

Prerequisite: AUT 122, 124, and 126 with a "C" or better.

Introduces fuel, ignition, and exhaust systems theory, diagnosis, repair, and service for vehicles with carburetion and fuel injection systems. Topics include general engine diagnosis; ignition system diagnosis and repair; fuel, air induction, and exhaust systems diagnosis and repair; positive crankcase ventilation; exhaust gas recirculation; engine related service.

AUT 130 - Automotive Brake Systems - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Introduces Brake systems theory and its application to automotive systems. Topics include hydraulic system diagnosis and repair; drum brake diagnosis and repair; disc brake diagnosis and repair; power assist units diagnosis and repair; miscellaneous (wheel bearings, parking brakes, electrical, etc.) diagnosis and repair.

AUT 132 - Suspension and Steering Systems - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Introduces students to principles of steering, suspension, wheel alignment, electronic steering, and electronic active suspension. Topics include steering systems diagnosis and repair; suspension systems diagnosis and repair; wheel alignment diagnosis, adjustment and repair; wheel and tire diagnosis and repair.

AUT 134 - Drivelines - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Introduces basics of rear-wheel drive, front-wheel drive, and four-wheel drive driveline related operation, diagnosis, service and related electronic controls. Topics include drive shaft and half shaft, universal and constant-velocity (cv) joint diagnosis and repair; ring and pinion gears and differential case assembly; limited slip differential; drive axle shaft; four-wheel drive/all-wheel drive component diagnosis and repair.

AUT 138 - Manual Transmission/Transaxle - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Introduces basics of front and rear-wheel drive. Clutch operation, diagnosis and service is included. Electronic controls related to transmission/transaxle operation are discussed. Topics include clutch diagnosis and repair; transmission/transaxle diagnosis and repair.

AUT 140 - Electronic Engine Control Systems - Credit Hours: 7

Prerequisite: AUT 128 with a "C" or better.

Introduces concept of electronic engine control. Topics include computerized engine controls diagnosis and repair; intake air temperature controls; early fuel evaporation (intake manifold temperature) controls; evaporative emissions controls.

AUT 142 - Climate Control Systems - Credit Hours: 6

Prerequisite: AUT 122 with a "C" or better.

Introduces the theory and operation of automotive heating and air conditioning systems. Students attain proficiency in inspection, testing, service, and repair of heating and air conditioning systems and related components. Topics include a/c system diagnosis and repair; refrigeration system component diagnosis and repair; heating, ventilation, and engine cooling systems diagnosis and repair; operating systems and related controls diagnosis and repair; refrigerant recovery, recycling, and handling.

AUT 144 - Introduction to Automatic Transmissions - Credit Hours: 4

Prerequisite: AUT 122 with a "C" or better.

Introduces students to basic transmission/transaxle theory, inspection, and service procedures. Focuses on minor in-car adjustments, replacements, and repair. Topics include general transmission and transaxle diagnosis; transmission and transaxle maintenance and adjustment; in vehicle transmission and transaxle repair.

AUT 210 - Automatic Transmission Repair - Credit Hours: 7

Prerequisite: AUT 144 with a "C" or better.

Introduces automatic transmission hydraulic/mechanical operations, transmission repair, and automatic transmission hydraulic/mechanical diagnosis. Topics include removal, disassembly, and reinstallation; oil pump and converter; gear train, shafts, bushings and case; friction and reaction units

AUT 212 - Advanced Electronic Transmission Diagnosis - Credit Hours: 3

Prerequisite: AUT 210 with a "C" or better.

Introduces automatic transmission hydraulic/mechanical, and electronic diagnosis and repair. Topics include electronically controlled automatic transmission, automatic transmission electrical and electronic problem diagnosis and repair.

AUT 214 - Advanced Electronic Controlled Brake System Diagnosis - Credit Hours: 4

Prerequisite: AUT 130 with a "C" or better.

Introduces anti-lock Brake system (ABS) to include ABS components and ABS operation, testing, and diagnosis. Topics include general Brake and anti-lock Brake systems diagnosis and testing, light truck rear anti-lock Brake system, four-wheel anti-lock Brake system locations, components, and operation.

AUT 216 - Advanced Electronic Controlled Suspension And Steering Systems - Credit Hours: 4

Prerequisite: AUT 132 with a "C" or better.

Introduces principles of electronic suspension, electronic steering, and electronic active suspension. Topics include electronic steering systems diagnosis and adjustment/repair, and diagnosis of electrical and electronic controlled steering and suspension systems.

AUT 218 - Advanced Electronic Engine Control Systems - Credit Hours: 4

Prerequisite: AUT 140 with a "C" or better.

Introduces On-Board Diagnostics II (OBD II), California Air Research Board (CARB) requirements and monitoring technology, diagnostic trouble code definitions, and essentials of advanced driveability diagnosis and data interpretation using a scanner. Topics include OBD II standards; monitoring capabilities; OBD II diagnostics; OBD II terms.

AUT 220 - Automotive Technology Internship - Credit Hours: 6

Prerequisite: AUT 128 with a "C" or better.

Provides student work experience in the occupational environment. Topics include application of automotive technology knowledge and skills, appropriate employability skills, problem solving, adaptability to job setting, progressive productivity, and acceptable job performance.

BAF 100 - Introduction to Banking and Finance - Credit Hours: 5

Introduces the student to the history, documents, and operational functions of the banking industry. Topics include history, documents, operations, specialized services and electronic banking

BIO 193 - Anatomy and Physiology I - Credit Hours: 5

Prerequisite: Provisional Admission

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. Mandatory laboratory experience, including dissection, supports classroom learning. Minimum grade of "C" required to advance to BIO 194, Anatomy and Physiology II.

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. Mandatory laboratory experience, including dissection, supports classroom learning.

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. Mandatory laboratory experience, including dissection, supports classroom learning.

BUS 100 - Introduction to Keyboarding - Credit Hours: 3

This course introduces the touch system of keyboarding placing emphasis on correct techniques. Topics include: computer hardware; computer software; file management; learning the alphabetic keyboard, the numeric keyboard and keypad; building speed and accuracy; and proofreading. Students attain a minimum of 25 GWAM (gross words a minute) on 3-minute timings with no more than 3 errors.

BUS 101 - Document Processing - Credit Hours: 6

Prerequisite: The ability to key at least 25 wpm or BUS 100

Corequisite: SCT 100

Reinforces the touch system of keyboarding, placing emphasis on correct techniques with adequate speed and accuracy and producing properly formatted business documents. Topics include: Reinforcing correct keyboarding technique, building speed and accuracy, formatting business documents, language arts, proofreading, and work area management.

BUS 105 - Database Applications - Credit Hours: 3

Prerequisites: SCT 100

Emphasizes use of database management software packages to access, manipulate, and create file data. Topics include: database concepts, structuring databases, entering data, organizing data, and managing databases.

BUS 106 - Office Procedures - Credit Hours: 5

Prerequisite: SCT 100

Corequisite: BUS 101

Emphasizes essential skills required for the business office. Topics include: office protocol, time management, telecommunications and telephone techniques, office equipment, workplace mail, records management, travel/meeting arrangements, electronic mail, and workplace documents.

BUS 108 - Word Processing - Credit Hours: 5

Prerequisites: SCT 100

Emphasizes an intensive use of word processing software to create and revise business documents. Topics include: creating, organizing, and formatting content; collaborating on documents; formatting and managing documents.

BUS 109 - Applied Office Procedures - Credit Hours: 5

Prerequisites: BUS 101, BUS 106, BUS 108, BUS 202

Corequisites: BUS 208 or ACC 101, BUS 148, BUS 160

This course focuses on applying knowledge and skills learned in all prior courses taken in the program. Topics include: communications skills, telecommunications skills, records management skills, office equipment/supplies, and integrated programs/applications. Serves as a capstone course.

BUS 148 - Document Proofreading and Editing - Credit Hours: 3

Prerequisite: BUS 101, ENG 111 or ENG 101 or ENG 191

Emphasizes proper proofreading and editing of business documents. Topics include: applying proofreading techniques and proofreader marks to business documents; proper content, clarity, and conciseness in business documents; and business document formatting.

BUS 151 - Introduction to Business - Credit Hours: 5

Prerequisite: Program Admission

Introduces organization and management concepts of the business world and in the office environment. Topics include business in a global economy, starting and organizing a business, enterprise management, marketing strategies, and financial management.

BUS 158 - Legal Terminology - Credit Hours: 5

Prerequisite: Provisional Admission

Introduces the spelling, pronunciation, and definition of basic legal terms. The course broadly covers general law terms as well as specialized legal terminology. Emphasis is placed on building familiarity with legal words that apply to the court system, contracts, family law, real estate, litigation, wills/probate, bankruptcy, and general legal terms. Topics include: word origins; word building; abbreviations and symbols; correct spelling, pronunciation and meanings of terminology related to the court system; contracts; family law; real estate; litigations; wills/probate; and bankruptcy.

BUS 160 - Electronic Communications Applications - Credit Hours: 5

Prerequisites: SCT 100

Provides an overview of electronic communications used in an office setting. Topics include: email fundamentals and management, using the Internet, system user security, and wireless/mobile computing and emerging technologies.

BUS 161 - Desktop Publishing - Credit Hours: 3

Prerequisites: SCT 100

Emphasizes intensive use of desktop publishing (DTP) software to create publications such as letterheads, resumes, fliers, posters, brochures, reports, newsletters, and business cards. Topics include: DTP concepts, operation of DTP software, publication page layout, basic graphic design, and practical applications.

BUS 201 - Advanced Word Processing - Credit Hours: 5

Prerequisites: BUS 108

Course provides instruction in advanced word processing. Topics include: advanced features of formatting and organizing content, advanced features of collaborating on documents and customizing word processing software.

BUS 202 - Spreadsheet Applications - Credit Hours: 3

Prerequisites: SCT 100

Provides instruction in the use of electronic spreadsheet software in business applications. Students become proficient in creating and modifying spreadsheets and in printing files that meet business standards. Topics include spreadsheet concepts, data entry and modification, analyzing data, charts and graphs, formatting data and content, and managing workbooks.

BUS 204 - Business Administrative Assistant Internship I - Credit Hours: 6

Prerequisite: Successful completion of all required coursework.

Provides 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 Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

BUS 208 - Office Accounting - Credit Hours: 6

Prerequisite: Program admission

Introduces fundamental concepts of accounting. Topics include: accounting equations, debits, credits, journalizing, posting and providing ledgers, accounts receivable, accounts payable, cash control, and payroll. Both manual and computerized concepts are taught.

BUS 211 - Medical Terminology - Credit Hours: 3

Prerequisite: Program admission

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: word analysis, word elements, spelling, pronunciation, and semantics.

BUS 212 - Anatomy and Medical Terminology for the Medical Administrative Assistant - Credit Hours: 5

Prerequisite: BUS 211

Introduces the structure and function of the human body including medical terminology. Topics covered include information which will provide the medical office assistant with the knowledge needed to communicate with office staff, physicians, and patients and to assist in completion of medical reports generated in the medical office. Topics include: body structures, body functions, and medical terminology.

BUS 213 - Medical Document Processing/Transcription - Credit Hours: 5

Prerequisites: BUS 211, BUS 101, ENG 111

Provides experience in medical machine 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.

BUS 214 - Advanced Medical Document Processing/Transcription - Credit Hours: 5

Prerequisites: BUS 101, ENG 111, AHS 101, BUS 213

Continues the development of speed and accuracy in the transcription of medical reports with emphasis on a variety of medical specialization. Topics include: equipment and supplies maintenance and usage, work area management, spelling, definitions, punctuation, processing/transcription speed and accuracy, resource utilization, pronunciation, and medical transcription work ethics.

BUS 216 - Administrative Medical Office Skills I - Credit Hours: 6

Prerequisites: BUS 101, AHS 101 or BUS 212, BUS 211, SCT 100

Emphasizes essential skills required for the medical office. Introduces the knowledge and skills of procedures for billing purposes. Introduces the basic concept of medical administrative assisting and its relationship to the other health fields. Emphasizes medical ethics, legal aspects of medicine, and the medical administrative assistant's role as an agent of the physician. Provides the student with knowledge and the essentials of professional behavior. Topics include: introduction to medical administrative assisting, medical law, ethics and bioethics, patient relations/human relations, physician-patient-assistant relationship, medical office in litigation, medical records management, scheduling appointments, pegboard or computerized accounting, health insurance, transcription of medical documents, and billing/collection.

BUS 217 - Legal Administrative Procedures I - Credit Hours: 5

Prerequisite: BUS 158

Corequisite: BUS 101

Emphasizes essential skills required for the legal office. Topics include: legal terminology, preparation of legal documents and correspondence, ethics, and legal office tasks.

BUS 224 - Business Administrative Assistant Internship - Credit Hours: 12

Prerequisite: Must be in last quarter; may take concurrently with last quarter coursework

Provides students with work experience in an off-campus business office. Topics include: application of classroom knowledge and skills, work environment functions, and listening/following directions. Students will be under the supervision of the Business Administrative Technology program faculty and/or persons designated to coordinate work experience arrangements.

BUS 226 - Medical Office Billing/Coding/Insurance - Credit Hours: 5

Prerequisites: BUS 101, AHS 101 or BUS 211

Emphasizes essential skills required for the typical medical office. Provides the knowledge and skills to apply coding or procedures; medical coding skills; and applications of procedures and international coding standards for billing purposes of health care services. Provides the knowledge and skills to obtain reimbursement in the medical office as it relates to health insurance.

BUS 228 - Computerized Medical Office Skills - Credit Hours: 3

Prerequisites: BUS 211, AHS 101 or BUS 212, BUS 101, SCT 100

This course provides a study of the content, code sets, storage, retrieval, control, flow, retention, maintenance of the medical administrative and electronic health record, and computerized office management. Topics include: electronic health information management, electronic data interchange, coding standards, medical record and office management software, point of entry data entry, electronic coding from medical records, speed data entry in processing medical records, analysis of records to improve patient care, confidentiality, release of information, security of electronic health record, communication, technology, insurance payment, managed care, posting to accounts, appointment schedules, practice management, report generation and HIPAA security.

BUS 229 - Acute Care Medical Transcription- Credit Hours: 5

Prerequisites: BUS 101, ENG 111, AHS 101 or BUS 211, BUS 213

Development of a high level of speed and accuracy in the transcription of medical reports in an acute care setting. Topics include: equipment and supplies maintenance and usage, work area management, pronunciation, spelling, definitions, punctuation, typing speed and accuracy, and resource utilization.

BUS 261 - Presentation Applications - Credit Hours: 3

Prerequisites: SCT 100

This course provides a study of creating, modifying and delivering presentations. Topics include: creating a presentation, formatting content, collaborating with others, managing a presentation, creating output, and delivering a presentation.

BUS 262 - Web Page Design - Credit Hours: 3

Prerequisites: Program Admission and SCT 100

This course provides instruction in the concepts necessary for individuals to create and manage professional quality web sites. Topics include: Web Site Creation, Web Page Development and Design, Hyperlink Creation, Test, and Repair, Integration, Web Site Navigation, and Web Site Management.

CIS 103 - Operating Systems Concepts - Credit Hours: 6

Prerequisite: Program Admission

Provides an overview of operating system functions and commands that are necessary in a computer working environment. Topics include multiprogramming, single and multiuser systems, resource management, command languages, operating system utilities, file system utilization, and multiple operating systems.

CIS 105 - Program Design and Development - Credit Hours: 5

Prerequisite: Program Admission

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.

CIS 106 - Computer Concepts - Credit Hours: 5

Prerequisite: Program Admission

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.

CIS 112 - Systems Analysis and Design - Credit Hours: 6

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.

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 his or her functions, safety, installation procedures, troubleshooting techniques, and preventive maintenance.

CIS 127 - Comprehensive Word Processing and Presentation Graphics - 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.

CIS 155 - Working With Microsoft Windows Software - Credit Hours: 3

Prerequisite: Program Admission

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.

CIS 157 - Introduction to Windows Programming Using Microsoft Visual Basic- Credit Hours: 7

Prerequisite: Program Admission

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.

CIS 221 - Microsoft Office Specialist Certification: 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.

CIS 222 - Microsoft Office Specialist Certification: 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.

CIS 276 - Advanced Routers and Switches - Credit Hours: 6

Prerequisites: CIS 2321, CIS 2322

Introduces LAN design, LAN switching and switch segmentation, advanced routing, and multiple protocols. Topics include a review of semesters I and II, local area network (LAN) switching, virtual local area networks (VLANs), local area network (LAN) design, interior gateway routing protocols (IGRP), access control lists, and Novell IPX.

CIS 277 - WAN Design - Credit Hours: 6

Prerequisites: CIS 2321, CIS 2322, CIS 276

Emphasizes WAN design utilizing point-to-point protocol (PPP), integrated services digital network (ISDN), and frame relay. Topics include a review of semesters I II and III, wide area network, wide area network design, point-to-point protocol, integrated services digital network (ISDN), and frame relay.

CIS 286 - A+ Preparation - Credit Hours: 7

Prerequisite: CIS 122

Provides the student with the fundamentals of configuring, installing, diagnosing, repairing, upgrading, and maintaining computers and their peripherals. To fundamentally prepare the student for the A+ essentials certification examination. Topics include: A+ Core Module, A+ DOS/Windows Operating Systems, PC hardware and configuration. Peripherals, Preventive Maintenance, Customer Interaction, Virus protection, Safety and Electrostatic Discharge, and Networks.

CIS 1104 - Web Graphics Using Adobe Photoshop - Credit Hours: 4

Prerequisites: Program Admission

This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include understand file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codecs, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects.

CIS 1106 - Introduction to Web Programming using C# .NET - Credit Hours: 4

Prerequisite: CIS 105, CIS 2202

This course provides an introduction to Web Programming using Microsoft C#. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

CIS 1107 - Introduction to Web Programming using Perl - Credit Hours: 4

Prerequisite: CIS 105, CIS 2202

This course provides an introduction to Web Programming using Perl. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

CIS 1108 - Web Graphics using JASC Paint Shop - Credit Hours: 4

Prerequisites: Program Admission

This course covers the creation and editing of digital photographs and images using JASC Paint Shop. Topics covered include understand file types, file compression, and download capabilities, creating digital images in different file types, setting and using color codecs, adjusting digital images with lighting, filtering, cropping, and resizing, creating transparent digital images, digital image web page positioning techniques, and using other digital image special effects.

CIS 1109 - Introduction to Web Programming using VB.NET - Credit Hours: 4

Prerequisites: CIS 105 and CIS 2202

This course provides an introduction to Web Programming using Microsoft Visual Basic .NET. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, If conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

CIS 1110 - Introduction to Web Programming using PHP - Credit Hours: 4

Prerequisite: CIS 105, CIS 2202

This course provides an introduction to Web Programming using PHP. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

CIS 1111 - Introduction to Web Programming using Python - Credit Hours: 4

Prerequisite: CIS 105, CIS 2202

This course provides an introduction to Web Programming using Python. Topics include advanced HTML, CSS basics, object oriented language requirements, defining variables, IF conditional statements and loops, modularization, accessing and displaying data on the web, understanding the XML data format, and cookies and security.

CIS 1115 - Information Security Fundamentals - Credit Hours: 5

Prerequisites: CIS 103 and CIS 106

Provides a broad overview of information security. It covers terminology, history, security systems development and implementation. Students will also cover the legal, ethical, and professional issues in information security.

CIS 1116 - Security Policies and Procedures - Credit Hours: 5

Prerequisites: CIS 1115

Provides knowledge and experience to develop and maintain security policies and procedures. Students will explore the legal and ethical issues in information security and the various security layers: physical security, personnel security, operating systems, network, software, communication and database security. Students will develop an Information Security Policy and an Acceptable Use Policy.

CIS 1120 - Computer Forensics and Disaster Recovery - Credit Hours: 6

Prerequisites: CIS 1116

This course serves as a capstone course for the information security specialist. The course will include implementing a plan to detect intruders, determine the damage caused, and discuss what precautions to use to avoid disasters.

CIS 1121 - Visual Basic.Net I - Credit Hours: 7

Prerequisites: CIS 105 Corequisite: CIS 124 or CIS 2128

Introduces Microsoft Windows event-driven programming. Common elements of Windows applications will be discussed, created and manipulated using Microsoft's Visual Studio development environment. Topics include numeric data types and variables, decision making structures, validating input with strings and functions, repetition and multiple forms, test files, arrays, lists and common dialog controls.

CIS 1123 - Web Graphics & Animation using Adobe Flash - Credit Hours: 6

Prerequisite: CIS 1104

This course covers the creation and manipulation of images and animation using Macromedia Flash and 3-D creation software. Topics covered include 3-D Digital Image tools, file types, download and image plug-in requirements, a systematic approach to creating images, creating 3-D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2-D and 3-D animations.

CIS 1124 - Web Graphics & Animation using Adobe Illustrator and Live Motion - Credit Hours: 6

Prerequisite: CIS 1104 or CIS 1108

This course covers the creation and manipulation of images and animation using Adobe Illustrator and Adobe Live Motion. Topics covered include 3-D Digital Image tools, file types, download and 3-D image plug-in requirements, a systematic approach to creating images, creating 3-D Objects, selecting and grouping objects, object transformation, object shading, lighting, filtering, and coloring, animation tools, file types, compression techniques, plug-in and download requirements, and creating 2-D and 3-D animations.

CIS 1131 - Help Desk Concepts - Credit Hours: 6

Prerequisite: SCT 100

The purpose of the Help Desk Concepts course is to prepare students to work in positions that provide customer and technical support through analysis and problem solving. Students will master the role of a help desk analysis, navigate the help desk environment, and learn crucial problem solving skills. In addition, students will learn to troubleshoot hardware problems, printer problems, OS problems, application problems, and user problems.

CIS 1132 - Customer Service Skills for IT Professionals - Credit Hours: 6

Prerequisite: CIS 1131

This course is designed to focus on new business topics such as trend analysis, root cause analysis, cost benefit analysis, and measuring return on investment. With less of a focus on technology and more of a focus on "soft" and self-management skills, this book will help students succeed as help desk professionals. The course emphasizes customer satisfaction and listening techniques that can be used in the work environment. This course explored a number of topics and skill required to provide effective customer support and provides proven techniques for implementing the concepts. This course is very "how to" oriented, it also describes the "bigger picture" benefits of acquiring and demonstrating business skills, soft skills, and self-management skills in today's competitive workplace.

CIS 1140 - Networking Fundamentals - Credit Hours: 6

Prerequisites: CIS 106

Introduces 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. 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. Topics include basic knowledge of networking technology, physical layer, data link layer, network layer, transport layer, TCP/IP fundamentals, TCP/IP suite: utilities, remote connectivity, security, implementing the installation of the network, maintaining and supporting the network, and troubleshooting the network.

CIS 1151 - CIS Internship - Credit Hours: 4-6

Prerequisites: All non-elective courses

This course provides the student with real hands-on experience in the IT industry. Students will be provided the opportunity to gain experience in the area of their concentration. Topics include application of classroom knowledge and skills and practical work experience.

CIS 2005 - Advanced Web Graphics using Adobe Photoshop - Credit Hours: 6

Prerequisites: CIS 1104

This course covers the creation and editing of digital photographs and images using Adobe Photoshop. Topics covered include curves and adjustment layers, retouching techniques, color correction, color balancing, element replacement and restoration, typography and interpolation, and advanced techniques and special effects.

CIS 2102 - Advanced Web Graphics and Multimedia using Adobe Premiere - Credit Hours :6

Prerequisite: CIS 1123

This course covers advanced web graphics techniques, and multimedia for the web including sound, music, and digital video using Adobe Premiere. Topics covered include about digital video editing, basic editing, adding audio, applying video and audio effects, morphing tools, and advanced topics.

CIS 2104 - Advanced Web Graphics using Adobe Director - Credit Hours : 6

Prerequisite: CIS 2102 or CIS 1123

This course covers advanced web graphics techniques, and multimedia for the web including sound, music, and digital video using Adobe Director. Topics include digital video editing, basic editing, adding audio, applying video and audio effects, morphing tools, and advanced topics.

CIS 2105 - Advanced Web Graphics using Adobe Flash - Credit Hours : 6

Prerequisite: CIS 1123

This course covers additional techniques used in the creation and manipulation of vector images and animation using Adobe Flash. Topics covered include (but not limited to) Advanced Animation Techniques, ActionScript Fundamentals, Advanced ActionScript Techniques, Third Party Languages, Optimizing and Publishing Flash movies

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.

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.

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.

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.

CIS 2156 - Designing a Secure Windows Network - Credit Hours: 6*Prerequisite: CIS 1560 or CIS 2154*

Provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft Windows technologies.

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.

CIS 2161 - Structured Query Language (SQL) - Credit Hours: 7*Prerequisite: SCT 100, CIS 106, CIS 105, and an Operating System course*

This course is designed to allow the student to solve common database retrieval problems through the use of the SQL Language that supports common databases such as SQL/Server, ORACLE, DB2, Access and other database systems. Topics include database vocabulary, object and relational database concepts, implementing SQL statements that retrieve, insert, update and delete data in a database, implement aggregate and group SQL functions, create, edit and drop database tables, query data from multiple databases, design queries and sub queries, develop an understanding of union and join operations, understanding how to execute and implement database triggers.

CIS 2162 - Administering Microsoft® SQL Server - Credit Hours: 6*Prerequisite: CIS 2149, CIS 2150*

This course provides instruction on how to administer a Microsoft SQL Server. Topics include planning, installation and configuration, configuring and managing security, managing and maintaining data, monitoring and optimization, and troubleshooting.

CIS 2163 - Designing and Implementing Databases with Microsoft SQL Server - Credit Hours 6*Prerequisite: CIS 2152 or CIS 2149 and CIS 2150 and Programming Language elective or Advisor approval*

This course provides instruction on how to design and implement a database solution by using Microsoft SQL Server. Topics include developing a logical data model, deriving the physical design, creating data services, creating a physical database, and maintaining a database.

CIS 2191 - Internet Business Fundamentals - Credit Hours: 4

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, news-groups, Instant Messaging, File Transfer and Telnet. Students 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. Topics include overview of the Internet, browsing the World Wide Web, electronic mail (E-Mail), using file transfer, TELNET, and Instant Messaging, search engines, searching to gain market intelligence, Internet technology, advanced Web concepts and browser customization, security and the Web, advanced search techniques, accessing business resources on the Internet, objects, plug-Ins, and viewers, and electronic commerce fundamentals.

CIS 2202 - XHTML Fundamentals - Credit Hours: 5

Prerequisite: SCT 100

XHTML Fundamentals is designed to teach basics 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. Student will allow learn how to use Cascading Style Sheets (CSS), XML, and XHTML. All HTML, CSS, XHTML, and XML development will follow the current standards set by the World Wide Web Consortium (W3C). Topics include introduction to HTML, CSS, XHTML, and XML, creating pages using HTML, CSS, XHTML, and XML, incorporating graphical elements, create hyperlinks, create HTML tables, create HTML forms, and image maps.

CIS 2211 - Web Site Design Tools - Credit Hours: 6

Prerequisite: CIS 2202

Web Site Design Tools teaches an understanding of how to create and manage impressive web sites using the sizeable amounts of new technology available on the Web. Students will learn to create web sites using various web tools such as (but not limited to) Microsoft FrontPage, Macromedia Dreamweaver, XHTML, XML, Dynamic HTML, and various multimedia and CSS standards. Topics include develop basic layout skills, create shared borders, tables, hyperlinks, and forms, utilize advanced image techniques, connect a web site to a database, publish and manage a web site.

CIS 2228 - Comprehensive 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.

CIS 2229 - Comprehensive 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.

CIS 2231 - Design Methodology - Credit Hours: 6

Prerequisite: CIS 2201

Design Methodology teaches students how to design and manage Web sites using a web site design development life cycle. Students will also implement the latest strategies to develop third generation Web site, 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. The student will gain an understanding of layout techniques, typography, color theory, proper use of white space, accessibility and usability issues and standards. The student may use a web site development tool (such as Microsoft FrontPage or Macromedia Dreamweaver), a scripting language (such as JavaScript, Perl, PHP) and/or a web programming language (such as Microsoft VB, Microsoft C#, or Sun Java) for web page development within this course. However, the main focus of this course is on the actual design process used to develop the web site itself. Topics include overview of the Web Site Design Process, web site project team, layout and accessibility design techniques, and web site project.

CIS 2261 - JavaScript Fundamentals - Credit Hours: 4

Prerequisite: CIS 2202

JavaScript Fundamentals teaches developers how to use the features of the JavaScript language. Students learn how to write JavaScript programs that can be plugged into Web pages or customized, and examine advanced issues such as debugging techniques and JavaScript security. Topics include introduction to JavaScript, working with variables and data, functions, methods, and events, developing interactive forms, controlling program flow, JavaScript object model, JavaScript Language objects, cookies and JavaScript security, controlling frames in JavaScript, client-side JavaScript, and custom JavaScript options.

CIS 2281 - Database Connectivity - Credit Hours: 6

Prerequisite: CIS 2202

Database Connectivity teaches students how to manipulate data in a database using the Open Database Connectivity (ODBC) model. Students will learn to retrieve, update, and display database information with a web application. Database access may be accomplished using a web programming language (such as ColdFusion, PHP, Microsoft VB, Microsoft C#, or Sun Java). Topics include manipulate data in a database, work with a relational database via Open Database Connectivity (ODBC), working with different database systems, develop forms and applications to interact with a database server(s), modifying data in a database, and controls and validation.

CIS 2291 - Network Security - Credit Hours: 6

Prerequisite: CIS 1140 or CIS 2321

Network Security introduces students to network security, firewalls, Microsoft Windows network security, UNIX and TCP/IP network security, security auditing, attacks, and threat analysis. Topics include: elements of security TCP/IP, operating system security, router security, firewalls, security basics, user and group security, file system security, securing the registry, account security, security auditing fundamentals, and additional security measures.

CIS 2321 - Introduction to LAN and WAN - Credit Hours: 6

Prerequisite: Program Admission

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.

CIS 2322 - Introduction to WANs and Routing - Credit Hours: 6

Prerequisite: CIS 2321

This course provides instruction on performing basic router configuration and troubleshooting.

CIS 2554 - Introduction to Linux/UNIX - Credit Hours: 6

Prerequisite: CIS 106 and SCT 100

Introduces the Linux/UNIX operating system skills necessary to perform entry-level user functions. Topics include History of Linux/UNIX, login and logout, the user environment, user password change, the file system, hierarchy tree, editors, file system commands as they relate to navigating the file system tree, Linux/UNIX manual help pages, using the Linux/UNIX graphical desktop, and command options. In addition, the student must be able to perform directory and file displaying, creation, deletion, redirection, copying, moving, linking files, wildcards, determining present working directory and changing directory locations.

CIS 2555 - Linux/UNIX Administration - Credit Hours: 6

Prerequisite: CIS 2554

Covers Linux/UNIX operating system administration skills necessary to perform administrative functions. Topics include Installing Linux/UNIX, configuring and building a custom kernel, adding and removing software packages, managing run levels, managing users and groups, implementing memory and swap space, managing and scheduling jobs, managing system logs, understanding the boot process, system configuration files, file backup and restore, file compression, fault tolerance, and printing.

CIS 2556 - Linux/UNIX Advanced Administration - Credit Hours: 6

Prerequisite: CIS 2555

Covers Linux/UNIX operating system advanced administration skills necessary to perform advanced administrative functions. Topics include understanding Linux/UNIX networking, managing network printing, configuring and troubleshooting TCP/IP on Linux/UNIX configuring DHCP, DNS, a Web server, an FTP server, an E-mail server, and understanding NIS (yp) and NFS. Also includes the following: understanding advanced security issues such as firewalls and NAT, using network commands, sue of graphical system such as X Windows, sharing files and printers, and advanced shell programming.

CIS 2557 - Linux/UNIX Shell Script Programming - Credit Hours: 6

Prerequisite: CIS 2556

Covers Linux/UNIX shell programming techniques necessary for Linux/UNIX System Administrators to understand and create shell script programs in a Linux/UNIX environment. Topics include Shell variables, running shell script program, conditional processing, looping structures, arrays, functions, arithmetic operators such as AND, OR, and NOT positional parameters and process variables, redirection, piping and standard error, use of backslash, quotes and back quotes.

CNA 100 - Patient Care Fundamentals - Credit Hours: 8

Prerequisite: BUS 212, AHS 104

An introduction of Certified Nursing Assistant and Patient Care Technician Fundamentals including health care delivery for the 21st century, observation, documentation, infection control, surgical asepsis, wound care, phlebotomy, ostomy care, catheters, enteral nutrition, pre-op & post-op care, respiratory procedures, specimen collection, trach care, and cardiac care skills.

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.

COL 100 - College Life and Career - 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; professional image; bacteriology; decontamination and infection control, chemistry fundamentals, safety, Hazardous Duty Standards Act compliance, anatomy and physiology and types of equipment.

COS 101 - Introduction to Permanent Waving and Relaxing - Credit Hours: 4

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, chemistry, physical and chemical change, safety procedures, and permanent wave, chemical relaxer application procedures on manikins, hair analysis and scalp analysis.

COS 103 - Basic Creative Treatment of Hair, Scalp and Skin - Credit Hours: 3

Prerequisite: COS 100

Introduces the theory, procedures, and products used in the care and treatment of the skin, scalp, and hair. Topics include basic corrective hair and scalp treatments, plain facial, products and supplies, diseases and disorders, and safety precautions.

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.

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, decontamination, and precautions, cutting implements, and haircutting techniques.

COS 107 - Advanced Hair Cutting - Credit Hours: 2

Prerequisite/Corequisite: COS 100, COS 106

Continues the theory and application of haircutting techniques. Topics include: client consultation, head, hair and body analysis, style cutting, haircutting techniques, and client consultations/head/hair/body analysis.

COS 108 - Permanent Waving and Relaxing - Credit Hours: 3

Prerequisite: COS 101

Provides instruction in the application of permanent waves and relaxers. Precautions and special problems involved in applying permanent wavers and relaxers will be emphasized. Application of perms and relaxers on live models is included. Topics include: timed permanent wave, timed relaxer application, safety precautions, and Harzardous Duty Standards Act compliance.

COS 109 - Hair Color - Credit Hours: 6

Prerequisite: COS 100, 101, 102, 103, 105, 106, 108

Presents the application of temporary, semi-permanent, deposit only, and permanent hair coloring and decolorization products. Topics include: basic color concepts, classifications of color, safety precautions, consultation, communication and record and release forms, product knowledge, special problems in hair color and corrective coloring, and Special Effects.

COS 110 - Skin, Scalp, and Hair - Credit Hours: 3

Prerequisite: COS 100, 101, 102, 103, 105, 106, 108, 109

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, corrective hair and scalp treatments, facial procedures and manipulations, safety precautions, cosmetic chemistry/products and supplies and treatment theory: electrotherapy, electricity and light therapy.

COS 111 - Styling - Credit Hours: 3

Prerequisite: COS 105 Corequisite: COS 110

Continues the theory and application of hairstyling and introduces thermal techniques. Topics include blow dry styling, thermal curling, thermal pressing, thermal waving, advanced cutting and styling, safety precautions, and artificial hair and augmentation.

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, hand and foot anatomy and Physiology, diseases and disorders, manicure techniques, pedicure techniques, nail product chemistry, safety precautions and practices, and advanced nail techniques (wraps/tips/acrylics).

COS 113 - Cosmetology Practicum I - Credit Hours: 5

Prerequisites: COS 111 and COS 112

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 treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

COS 114 - Cosmetology 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 treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance; advanced styling and shaping; industry concepts; and surviving in the salon (transition from class to employment).

COS 115 - Cosmetology Practicum III - Credit Hours: 5

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 treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance.

COS 116 - Cosmetology Practicum IV - Credit Hours: 5

Prerequisites: 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. Topics include permanent waving and relaxers; hair color and bleaching; skin, scalp, and hair treatments; haircutting; styling; dispensary; manicure/pedicure/advanced nail techniques; reception; safety precautions/decontamination; and Hazardous Duty Standards Act compliance and state licensure preparation.

COS 117 - Salon Management - Credit Hours: 4

Prerequisites: COS 112

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, career development and client retention.

COS 118 - Nail Care I - Credit Hours: 7

Prerequisites: COS 100, COS 112

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, and safety/sanitation.

COS 119 - Nail Care II - Credit Hours: 9

Provides nail care experience on live models. Emphasis will be placed on the display of professional conduct and positive attitudes. 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/pedicure, nail repair, artificial nails, electric file, advanced/new techniques, HIV and OSHA updates, nail art, receptionist/dispensary, state board licensure preparation, and safety/sanitation.

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 / FST 230 - Criminal Procedure - Credit Hours: 5

Prerequisite: Provisional admission

Introduces the substantive law of major crimes against persons and property. Attention is given to observation and 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 Technology/overview of Constitutional Law.

CRJ 121 - Introduction to Private Security - Credit Hours: 5

Provides an orientation to the development, philosophy, responsibility, and function of the Private Security Industry. A historical and philosophical perspective of private Security will help students better understand the present stage of private security, its principles, its legal authority and its effect on society in general. Topics include private security: an overview; basic security goals, and responsibilities, when prevention fails, security systems at work, putting it all together, and future challenges facing the security profession.

CRJ 123 - Computer Security/Corporate Fraud - Credit Hours: 5

Provides an orientation that contains a step-by-step approach to the investigation, seizure, and evaluation of computer evidence. Topics include computer related evidence, crime scene investigation, evidence evaluation and analysis, passwords and encryption, networks, and investigative computer systems. The second part of this course provides an orientation that focuses on corporate fraud as it relates to computerized accounting systems and its technology, the various types of corporate computer fraud and simple audit techniques that can assist in investigating and detecting fraud. Topics include history and evolution of fraud, mindset: step one in fraud auditing, corporate fraud in the current environment, corporate fraud investigation in the electronic data processing era, defenses against corporate fraud, theft and embezzlement, and auditing for inventory shortage.

CRJ 162 / FST 210 - Methods of Criminal Investigation - Credit Hours: 5

Prerequisite: Provisional admission

Presents the fundamental principles of criminal investigation. Emphasis is placed on legal requirements stated in Georgia Criminal Law, definition of felony crimes stated in the Georgia Code of fundamentals of: investigative procedures, crime scene searches, identification and collection of evidence, note-taking and report writing, surveillance, identification of witnesses and suspects, interviews and interrogation, and preparation and presentation of evidence in court. Topics include Georgia Criminal Law, common investigative techniques, and procedures used for investigating various crimes.

CRJ 168 - Criminal Law - Credit Hours: 5

Prerequisite: Provisional admission

Emphasizes the historical development of criminal law in the United States and the current status of Georgia criminal law. The main focus of the course will be the statutory contents of the Official Code of Georgia Annotated (O.C.G.A.), with the primary emphasis on the criminal and traffic codes

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.

CRJ 212 - Ethics in Criminal Justice - Credit Hours: 5

Prerequisite: Provisional Admission

This course provides an exploration of the field of criminal justice ethics, which broadly encompasses the history of justice and theories of morality and ethics. It includes the study of ethics from both the individual perspective and the organizational standpoint. Special attention will be given to concrete ethical issues and dilemmas which are encountered regularly by participants in the major components of the criminal justice system. Four areas of ethical decision making opportunities are therefore studied in this course, including: law enforcement ethics; correctional ethics; legal profession ethics; and policy making ethics.

CSP 101 - Introduction to Sterile Processing - Credit Hours: 9

Prerequisites: BUS 212, MAT 1012, SCT 100

Introduces the student to the scope of the Central Sterile Profession with the scientific principles that underlie daily work. Topics include introduction to the Central Service Department; medical asepsis; relation of instrumentation to human anatomy and microbiology to infection control; instrument identification, decontamination, and preparation and packaging of sterile items; all sterilization processes and monitor controls used in health care facilities; sterile supply storage, distribution and inventory control practices.

CSP 102 - Central Sterile Processing Practicum - Credit Hours: 10

Prerequisites: MAT 1012, SUR 108, CSP 101

Introduces the student to the scope of the Central Sterile Profession while performing in a Central Sterile Department at area hospitals. Topics include introduction to the Central Service Department; medical asepsis; relation of instrumentation to human anatomy and microbiology to infection control; instrument identification, decontamination, and preparation and packaging of sterile items; all sterilization processes and monitor controls used in health care facilities; sterile supply storage, distribution and inventory control practices.

CTD 100 - Fundamentals of Commercial Truck Driving - Credit Hours: 5

Fundamentals of Commercial Truck Driving introduces students to the trucking industry, federal and state regulations, records and forms, industrial relations, and other non-driving activities. This course provides an emphasis on safety that will continue throughout the program.

CTD 102 - Basic Operation and Range Work - Credit Hours: 5

Corequisite: CTD 101

This course focuses on familiarizing students with truck instruments and controls and on performing basic maneuvers required to drive safely in a controlled environment and on the Driving Range. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time in range operations- operating a tractor trailer through clearance maneuvers, backing, turning, parallel parking, and coupling & uncoupling.

CTD 103 - Advanced Operations - Credit Hours: 5

Corequisite: CTD 102

Advanced Operations focuses on developing driving skills under actual road conditions. The classroom part of the course stresses following safe operating practices. On the road, safe operating practices are integrated into the development of driving skills. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of 44 (forty four) hours BTW instructional time in any combination (with CTD 102) of range and street/road driving. *Note: State law requires that, whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving.*

CTD 104 - Internship - Credit Hours: 5

Corequisite: CTD 102

The internship provides the opportunity for an individual to complete his or her training with a company. The internship takes the place of CTD 103- Advanced Operations. Working closely with the school, a company provides the advanced training which focuses on developing driving skills. Each student must receive at least twelve (12) hours behind-the-wheel (BTW) instructional time on the street/road. In addition, the student must have a minimum program total of 44 (forty four) hours BTW instructional time in any combination (with CTD 102) or range and street/road driving. *Note: State law requires that whenever a vehicle is operated on public roads, an instructor must be present in the truck while a student is driving.*

CVT 102 - Medical Physics - Credit Hours: 3

Prerequisite: ENG 191, MAT 1111, PSY 191, BIO 193,, BUS 212, or AHS 109, AHS 102, PHY 190/Corequisites: CVT 103, CVT 107, CVT 109

Continuation of Fundamentals of Medical Physics with stress placed on the physics of medicine. The student is introduced to the theory of physics found in cardiovascular science Electricity and magnetism, electrical and radiation safety, and medical imaging equipment are discussed. Performance of laboratory procedures is used to reinforce understanding of biomedical applications of physics and proper safety techniques.

CVT 103 - Electrophysiology - Credit Hours: 3

Prerequisite: ENG 191, MAT 1111, PSY 191, BIO 193,, BUS 212, or AHS 109, AHS 102, PHY 190/ Corequisites: CVT 102, CVT 107, CVT 109

Provides an introduction to the field of cardiovascular technology and the three primary components of the cardiovascular field. Topics include cardiac anatomy and physiology, electrophysiology, electrocardiograms, and cardiac arrhythmias.

CVT 104 - Electrophysiology II - Credit Hours: 3

Prerequisite: CVT 102, CVT 103/Corequisites: CVT 108, CVT 110, CVT 111

This course introduces the concepts essential in the performance and interpretation of 12 lead EKD; cardiac exercise tolerance testing; and Holter monitoring. There will be an introduction to cardiac rehabilitation programs and cardiac pacemakers.

CVT 107 - Cardiovascular I - Credit Hours: 3

Prerequisite: Program Admission/Corequisites: CVT 102, CVT 103, CVT 109

Provides an overview of cardiovascular technology and the role of the cardiovascular technologist. The importance of professionalism, ethical behavior, and communication is stressed. Topics include medical terminology, basic life support skills, ethics, legal aspects, communication, and professionalism.

CVT 108 - Cardiovascular II - Credit Hours: 3

Prerequisites: CVT 102, CVT 103, CVT 107, CVT 109/Corequisites: CVT 104, CVT 110, CVT 111

The student is introduced to various forms of invasive monitoring. Various forms of invasive access are studied including right and left heart catheterization, arterial line setups and appropriate care. Emphasis is placed on the basics of hemodynamic monitoring and interpretation. An introduction is given to aseptic techniques and infection control. Labs and tours will be provided.

CVT 109 - Cardiovascular Physiology - Credit Hours: 3

Prerequisite: Program admission/Corequisites: CVT 102, CVT 103, CVT 107

Provides an overview of cardiovascular physiology and pathophysiology. Topics include biochemistry of the cardiac muscle, conduction system, electrocardiogram, pathophysiology of acquired diseases, embryological development, and the pathophysiology of congenital diseases.

CVT 110 - Noninvasive Cardiovascular Fundamentals - Credit Hours: 4

Prerequisites: CVT 102, CVT 103/Corequisites: CVT 104, CVT 108, CVT 111

Introduces the basic principles and applications of physical assessment and echocardiographic procedures. Topics include physical principles, heart sounds, echocardiography, and tomographic anatomy.

CVT 111 - Invasive Cardiovascular Fundamentals - Credit Hours: 4

Prerequisites: CVT 102, CVT 103, CVT 107, CVT 109/Corequisites: CVT 104, CVT 108, CVT 110

Provides an overview of cardiovascular invasive diagnosis and therapy. Includes an introduction of the cardiac catheterization lab. Topics include X-ray therapy, safety, positioning, coronary arteriography, pharmacology, and invasive cardiac measurements and calculations.

CVT 120 - Cardiac Catheterization I - Credit Hours: 4

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111/*Corequisite:* CVT 102

Orients the student to the cardiac catheterization procedures and skills necessary to assist with the left heart catheterization and angiogram. Topics include orientation of catheterization procedures; equipment/catheterization equipment and the Seldinger technique.

CVT 121 - Cardiac Catheterization II - Credit Hours: 9

Prerequisites: CVT 120, CVT 124/*Corequisites:* CVT 125

An intensive study of the role of the CV Technologist in the various invasive Cardiac Catheterization procedures such as Right and Left Heart Catheterization, temporary pacemakers, Swan Ganz insertion and coronary angioplasty. Also include Angiographic Data and Special Techniques. Basic competencies are developed in hemodynamic calculations such as Quantitative LV volumes, Valve areas and pressure waveforms. Additional competencies developed in emergency life support and cardiac pharmacology.

CVT 122 - Cardiac Catheterization III - Credit Hours: 9

Prerequisites: CVT 121, CVT 125/*Corequisite:* CVT 126

Offers an intensive study of the role of the cardiac catheterization technologist in advanced cardiovascular procedures related to the catheterization lab and to open heart surgery. Topics include electrophysiology, pacemaker and implantable defibrillators, pediatric heart catheterization, blood gases, cardiac output, shunt determination, heart lung machine, cardiac assist devices, and the intra-aortic balloon pump.

CVT 123 - Cardiac Catheterization Clinical IV - Credit Hours: 12

Prerequisites: CVT 122, CVT 126

Develops clinical skills by active participation in a cardiac catheterization laboratory. Topics include cardiac catheterization lab, special radiologic procedures, pacemakers, coronary angioplasty, computer operations and calculation, and surgical specialty procedures.

CVT 124 - Cardiac Catheterization Clinical - Credit Hours: 5

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111/*Corequisite:* CVT 120

Develops basic catheterization skills by observation and participation in cardiovascular procedures. Topics include role of the invasive cardiovascular technologist, cardiovascular procedures, professional conduct, and ethics.

CVT 125 - Cardiac Catheterization Clinical II - Credit Hours: 3

Prerequisites: CVT 120, CVT 124/*Corequisite:* CVT 121

Provides hands-on experiences in performing invasive cardiovascular procedures. Emphasis will be placed on development of clinical skills. Topics include policies and procedures, cardiac catheterization equipment, participating in sterile surgical procedures, and patient preparation.

CVT 126 - Cardiac Catheterization Clinical III - Credit Hours: 3

Prerequisites: CVT 121, CVT 125/*Corequisite:* CVT 122

Emphasizes the latest modalities and specialties of invasive cardiac catheterization. Topics include study skills and clinical rotation in electrophysiology, pacemaker, pediatric heart catheterization, stent and balloon angioplasty procedures.

CVT 131 - Echocardiography I - Credit Hours: 4

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111/*Corequisite:* CVT 132

Develops basic imaging skills by imaging normal hearts in the echocardiography lab. Topics include role of the noninvasive cardiovascular technologist, echocardiographic examination, basic quantification calculations, professional conduct, and ethics.

CVT 132 - Echocardiography Clinical I - Credit Hours: 5

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111/*Corequisite:* CVT 131

Introduces the clinical environment by assisting the technologist in the echocardiography lab in patient preparation and imaging and in acquiring electrocardiograms, Holter monitors, stress testing, and pacemaker checks. Topics include clinical environment, recording medical information, patient preparation for noninvasive cardiovascular treatment, and medical ethics.

CVT 133 - Echocardiography Clinical II - Credit Hours: 3

Prerequisites: CVT 131, CVT 132/*Corequisites:* CVT 135

Provides hands-on experiences in performing noninvasive cardiovascular procedures. Emphasis will be placed on instrumentation and development of clinical techniques. Topics include policies and procedures, echocardiographic instrumentation, recording patient information, patient preparation, and performing echocardiographic examinations.

CVT 134 - Echocardiography Clinical III - Credit Hours: 3

Prerequisites: CVT 133, CVT 135/*Corequisite:* CVT 136

Provides hands-on experiences in the clinical setting with an emphasis placed on the development of clinical techniques employed to obtain meaningful data. Topics include echocardiographic instrumentation, logging and reporting information, preparation for echocardiographic examinations, medical ethics, and performing echocardiographic procedures.

CVT 135, Echocardiography II - Credit Hours: 9

Prerequisites: CVT 131, CVT 133/*Corequisites:* CVT 133

Utilizes the fundamentals to evaluate acquired disease states. Incorporates all forms of noninvasive cardiovascular evaluation with emphasis placed on performance and interpretation of M-mode, 2-dimensional and Doppler echocardiography. Topics include cardiac chamber studies, hemodynamic correlates, valvular heart disease, coronary heart disease, cardiomyopathies, pericardial diseases, cardiac masses, and diseases of the aorta.

CVT 136 - Echocardiography III - Credit Hours: 9

Prerequisites: CVT 133, CVT 135/*Corequisites:* CVT 134

Emphasizes the latest modalities and specialties of noninvasive cardiac diagnostic study. Topics include Doppler color flow imaging, congenital abnormalities, research methods, statistics, and quality improvement.

CVT 137 - Echocardiography Clinical IV - Credit Hours: 12

Prerequisites: CVT 134, CVT 136

Provides clinical internship in noninvasive cardiovascular technology. Topics include independent performance of clinical skills, current literature, professionalism and ethical behavior.

CVT 140 - Vascular I - Credit Hours: 4

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111 /*Corequisite:* CVT 143

Introduces and develops imaging skills in the area of extracranial and intracranial cerebrovascular sonography. Topics include history taking, protocol, calculations, preliminary reports, and interaction with physicians. Adult and pediatric cerebrovascular topics included and ICD-9 coding.

CVT 141 - Vascular II - Credit Hours: 9

Prerequisites: CVT 140, CVT 143/*Corequisites:* CVT 144

Introduces and develops imaging skills in the area of abdominal and peripheral arterial noninvasive diagnostic procedures. Topics include duplex, segmental pressures and plethysmography of upper and lower extremities. Duplex of abdominal arteries. History taking, protocol, calculation, preliminary reports, and interaction with physicians.

CVT 142 - Vascular III - Credit Hours: 9

Prerequisites: CVT 141/*Corequisites:* CVT 145

Introduces and develops imaging skills in the area of abdominal and peripheral venous noninvasive diagnostic procedures. Topics include duplex of abdominal, upper, and lower extremity veins, history taking, protocol, calculations, preliminary reports, and interaction with physicians. ICAVL Accreditation.

CVT 143 - Vascular Clinical I - Credit Hours: 5

Prerequisites: CVT 104, CVT 108, CVT 110, CVT 111/*Corequisites:* CVT 104

Introduces the clinical environment by assisting technologist in the vascular lab in patient preparation, history taking, and basic imaging. Topics include role of the vascular technologist, professional conduct, medical ethics, patient preparation, introduction to imaging.

CVT 144 - Vascular Clinical II - Credit Hours: 3

Prerequisites: CVT 140, CVT 143/*Corequisites:* CVT 141

Provides hands-on experience in performing noninvasive vascular procedures. Emphasis will be placed on instrumentation and development of clinical technique. Topics include policy and procedure, vascular instrumentation, writing preliminary reports, patient preparation, and performing noninvasive vascular testing.

CVT 145 - Vascular Clinical III - Credit Hours: 3

Prerequisites: CVT 141, CVT 144/*Corequisite:* CVT 142

Provides hands-on experience in the clinical setting with an emphasis placed on further development of clinical skills. Topics include vascular instrumentation and exam performance, recording and documenting vascular findings, interacting with patients, and interacting with physicians.

CVT 146 - Vascular Clinical IV - Credit Hours: 12

Prerequisites: CVT 142, CVT 145

Provides clinical internship in noninvasive vascular technology. Topics include independent performance of clinical skills, current literature, professionalism and ethical behavior.

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.

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.

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.

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.

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.

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.

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.

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.

DDF 108 - Intersections and Development - Credit Hours: 5

Prerequisites/Corequisites: DDF 103, MAT 1015

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.

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.

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.

DDF 112 - 3-D 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, 3-D modeling, rendering, advanced application utilization, and pictorial drawings.

DDS 201 - Strength of Materials - Credit Hours: 5

Prerequisites: ENG 111, MAT 1015

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.

DDS 203 - Surveying I - Credit Hours: 3

Prerequisites: DDF 107, MAT 1015

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.

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.

DDS 205 - Residential Architectural Drawing I - Credit Hours: 6

Prerequisites: DDF 111, DDS 201, ENG 111, MAT 1015

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.

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.

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.

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.

DDS 225 - Principles of Metallurgy - Credit Hours: 4

Prerequisites: ENG 111, MAT 1015

Introduces the fundamental physical properties of metals. Topics include materials properties and limitations, materials processing techniques, treating materials, testing materials, and micro-structural characteristics.

DDS 226 - Manufacturing Processes - Credit Hours: 4

Prerequisites/Corequisites: ENG 111, MAT 1015

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.

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.

DDS 229 - Gears and Cams - Credit Hours: 6

Prerequisites: DDS 201, DDS 226, MAT 1015

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.

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.

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.

DIS 150 - Directed Individual Study - Credit Hours: 2

Provides the instructor and student an opportunity to develop special learning environments. Instruction is delivered through occupational work experiences, practicums, advanced projects, industry sponsored workshop, seminar, or specialized and/or innovative learning arrangements. Topics include application of occupational/technical skills, adaptability to the work environment, and problem solving. Each course should be documented with a written agreement between the instructor and the student detailing expected requirements. This course is offered with variable credit ranging from one quarter hour credit minimum to 12 quarter hour credit maximum. Credit hours are to be computed on the basis of three hours per week for the duration of a quarter equaling one quarter hour credit (3 to 1 ratio).

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, guidance, transitional activities, 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 theory and practice, 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, health issues, safety issues, child abuse and neglect, and nutritional needs of children.

ECE 112 - Curriculum Development - Credit Hours: 3*Prerequisites/Corequisites: ECE 101, ECE 103*

This course assists the student in understanding that play, developmental integration and active learning are critical to achieving meaningful curriculum for young children. The course 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 plans and materials, transitional activities, approaches to teaching, learning, and assessing, and appropriate assessment strategies.

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 and children's creative development; facilitation of children's creative expression; appreciation of children's art processes and products; and art appreciation.

ECE 114 - Music and Movement - Credit Hours: 3*Prerequisite: ECE 103*

Introduces the concepts related to creativity in music and movement. This course combines lecture and lab experiences to introduce media, methods and materials used to foster musical activity and creative movement. Topics include: spontaneous/planned music and movement, media, methods and materials; coordination of movement and music; theoretical foundations; and music appreciation.

ECE 115 - Language Arts and Literature - Credit Hours: 5*Prerequisites: ECE 103*

Develops knowledge and skills that will enable the student to plan and implement developmentally appropriate listening, speaking, writing, and reading activities for young children. Topics include: reading readiness, oral communication activities, writing readiness, listening comprehension, literature selection, story presentation, and stages of language acquisition and use of technology in language arts.

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 stages and developmental process 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/Corequisite: ECE 103, ECE 105*

Provides the student with the opportunity to gain a supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; becoming a professional; and guidance techniques and classroom management.

ECE 122 - Early Childhood Care and Education Practicum II - Credit Hours: 3*Prerequisite: ECE 121*

Provides the student with the opportunity to gain a supervised experience in an actual or simulated work setting allowing demonstration of techniques obtained from course work. Practicum training topics include: promoting child development and learning; building family and community relationships; observing, documenting, and assessing to support young children and families; teaching and learning; and becoming a professional.

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 children with special needs. Topics include: inclusion/least restrictive environment (LRE), physical disabilities and health disorders, intellectual exceptionalities, social/emotional disorders, and community resources.

ECE 202 - Social Issues and Family Involvement - Credit Hours: 5

Prerequisite: Provisional Admission

Enables the student to become familiar with the social issues that affect families of today and to develop a plan for coping with these issues 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/social issues, community resources, parent education and support, teacher-parent communication, community partnerships, social diversity and anti-bias issues, transitioning the child, and school family activities.

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, and theories of learning and behavior. Topics include: developmental characteristics, guidance techniques, developmentally appropriate practice, introduction to children with special needs, and observation skills.

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, materials for instruction, and learning environments.

ECE 212 - Professional Practices and Classroom Management - Credit Hours: 5

Prerequisite/Corequisite: Departmental Approval/ ECE 211

Develops knowledge that will enable the student to work as a paraprofessional in a program for pre-kindergarten through elementary-aged children. Topics include: professional qualifications, professionalism, supervised planning, application of guidance techniques, and classroom management.

ECE 217 - Program Administration - Credit Hours: 5

Prerequisite: Program Admission

Provides training in planning, implementation, and maintenance of an effective early childhood program. Topics include: organization, mission, philosophy, goals, and history of a program; types of programs; laws, rules, regulations accreditation and program evaluation; needs assessments; administrative roles and board of directors; marketing, public and community relations, grouping, enrollment and retention; working with parents; professionalism and work ethics; and time and stress management.

ECE 221 - Facility Management - Credit Hours: 5

Prerequisite: Program Admission

Provides training in early childhood facilities management. Topics include: space management, money management, and program, equipment, and supplies management.

ECE 222 - Personnel Management - Credit Hours: 5

Prerequisite: Program Admission

Provides personnel management training in early childhood settings. Topics include: staff records; communication; personnel planning; personnel policies; managing payroll, recruitment, selection, interviewing, hiring, motivating, firing, and staff retention; staff scheduling; staff development; staff supervision; conflict resolution; staff evaluation; and ethical responsibilities to employees.

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. Topics include: problem solving, use of proper interpersonal skills, application of developmental appropriate practices, professional development, and resource file (portfolio) development.

ECE 260 - Characteristics of Young Children with Exceptionalities - Credit Hours: 5

Prerequisite: ECE 201

Prepares child care providers and paraprofessionals with knowledge and skills in the area of physical and motor impairments, talented and giftedness, intellectual and cognitive disabilities, emotional and behavioral disorders, communication disorders in speech and language, autism spectrum disorders, visual impairments, deaf and hard of hearing, health impairments, and multiple disabilities.

ECE 262 - Classroom Strategies and Intervention - Credit Hours: 5

Prerequisite: ECE 201

This course prepares child care providers and paraprofessionals with knowledge and skills in the area of coping with a disability, working with families as partners, examining the laws and regulations, exploring resources, service providers and agencies that may assist the child and their family, examining the adaptations and modifications to facilities and environments, reviewing the referral process, implementing inclusion, modifying teaching and instruction to accommodate the child with special needs, and investigating ways to document and chart observations.

ECE 264 - Exploring Your Role In the Exceptional Environment - Credit Hours: 5

Prerequisite: ECE 201

This course prepares child care providers and paraprofessionals with knowledge and skills in the area of examining the assessments and screenings used for placement, exploring resources, service providers and agencies that may assist the child in the child care or educational environment, examining the adaptations and modifications to environments, reviewing the referral process, implementing inclusion, and modifying teaching and instruction to accommodate the child with special needs.

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.

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.

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.

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.

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.

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.

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.

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.

ELC 120 - Microprocessors Fundamentals - 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.

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.

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.

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.

ELC 214 - Mechanical Devices - Credit Hours: 3

Prerequisite/Corequisite: MAT 193 or MAT 1015 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 1015 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.

ELC 218 - Operating Systems Technology - 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.

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.

EMC 100 - Introduction to the EMT Profession - Credit Hours: 3

Prerequisite: Program Admission

The course covers all the components of the national Highway Safety Transportation Administration, national Standard Curriculum, Emergency Medical Technician- Basic, 1994 Standard, Module 1 and Module 7. It also covers Sections 1, 2, 3 and 4 of the NHTSA, National Standard Curriculum, EMT - Intermediate - 1985. Topics include basic cardiopulmonary resuscitations/AED, introduction to emergency medical care, roles and responsibilities of the EMT - Intermediate, EMS Systems for EMT - Intermediates, well being of the EMT - Basics, medical/legal and ethical issues, medical-legal aspects for the EMT - Intermediate, blood and airborne pathogens and infectious diseases, the human body, medical terminology, base line vital signs and SAMPLE history, lifting and moving patients, ambulance operations, gaining access and overviews of the HazMat/MCI.

EMC 103 - Patient Assessment and Airway for the EMT - Credit Hours: 3

Prerequisite: Program Admission/*Corequisite:* EMC 100

The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician - Basic, 1994 standard, Module 2 and 3. In addition to the NSC-B 1994 standards, this course also includes the NSC EMT - Intermediate 1985 Standard, Sections 5, 6 and 7. Topics include scene-size up, initial assessment, focused history and physical exam for both medical and trauma patients, detailed physical exam, on-going assessment, communications/documentation, EMS communications for the EMT - 1, airway, advanced airway and basic/advanced airway management.

EMC 105 - Medical Behavioral & OB/Pediatrics Emergencies for the EMT - Credit Hours: 4

Prerequisites: EMC 100, EMC 103

The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 4 and Module 6. Topics include general pharmacology, respiratory emergencies, cardiovascular emergencies, diabetic emergencies, allergic reactions, poisoning/overdoes emergencies, environmental emergencies, behavioral emergencies, ob/gyn emergencies, infants & children and patients with special needs.

EMC 108 - Trauma Emergencies and WMD Response - Credit Hours: 2

Prerequisites: EMC 100, EMC 103/*Corequisite:* EMC 105

The course covers all the components of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Basic, 1994 standard, Module 5. Topics include bleeding and shock, soft tissue injuries, musculoskeletal care, injuries to the head/spine and emergency medical response to WMD.

EMC 110 - Summative Evaluations for the EMT - Basic - Credit Hours: 5

Prerequisites: EMC 100, EMC 103/*Corequisite:* EMC 105, EMC 108

This course serves as the exit point for students taking only the EMT-Basic program. Students continuing on to the EMT-Intermediate portion of the curriculum, must pass this course in order to continue. The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This class will also contain a comprehensive review of the US DOT EMT-Basic 1994 Curriculum, as well as portions of the NSC EMT-Intermediate 1985 Curriculum that were covered in EMS XX1 and EMS XX2, and a comprehensive written and practical exam that will serve to verify the students competencies before proceeding to the EMT-Intermediate courses.

EMC 113 - Pharmacology and Shock/Trauma Management For the EMT-Intermediate - Credit Hours: 3

Prerequisites: EMC 100, EMC 103, EMC 105, EMC 108/*Corequisite:* EMC 110

The course covers Section 8 of the National Highway Safety Transportation Administration, National Standard Curriculum, Emergency Medical Technician-Intermediate, 1985 standard. Topics include general pharmacology review, IV and IO therapy and shock/trauma assessment and management.

EMC 116 - Hazardous Materials, Vehicle Extrication Process, Patient Assessment/Initial Management - Credit Hours: 3

Prerequisites: EMC 113

This course covers the U.S. Department of Transportation 1985 Emergency Medical Technician-Intermediate Curriculum. Topics include hazardous material awareness level I (GEMA), patient handling (FTO), vehicle extrication lab (FTO) and general patient assessment and initial management.

EMC 119 - Summative Evaluations for the EMT-Intermediate - Credit Hours: 2

Prerequisites: EMC 113/*Corequisite:* EMC 116

This is the final course for those pursuing EMT-Intermediate Certification. The course will include clinical hours to be spent in both Hospital Emergency Departments and on Ambulance Clinical Rotations. This class will also contain a comprehensive review of the US DOT EMT-Basic 1994 Curriculum as well as the US DOT EMT-Intermediate 1985 Curriculum. The course will include a comprehensive written and practical exam that will serve to verify the students' competencies before being allowed to sit for the National Registry Intermediate-1985 Exam. Topics will include review of both the EMT-B 1994 and EMT-I 1985 Curricula, Assessment/Management Review for Trauma & Medical & OB/Peds and a NREMT examination review.

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.

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.

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.

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 - English I - Institutional Credit Hours: 5

Prerequisite: Placement by diagnostic testing

Introduces fundamental grammar. Topics include basic vocabulary, basic sentence structure, sentence capitalization and punctuation, basic spelling, and basic writing.

ENG 096 - English II - Institutional Credit Hours: 5

Prerequisites: ENG 095 with a grade of "C" or better or placement by diagnostic testing

Emphasizes standard English usage. Topics include capitalization, basic punctuation, subjects and verbs agreement, correct verb forms, spelling, and basic paragraph development.

ENG 097 - English III - Institutional Credit Hours: 5

Prerequisite: ENG 096 with a grade of "C" or better or placement by diagnostic testing

Emphasizes the rules of grammar, punctuation, capitalization, spelling, and writing in order to ensure a smooth transition into communicating orally and in writing. Topics include basic grammar, mechanics, spelling, and sentence writing and paragraphing skills needed for writing memos, letters, reports, and short essays.

ENG 098 - English IV - Institutional Credit Hours: 5

Prerequisite: ENG 097 or ENG 100 with a grade of "C" or better or placement by diagnostic testing

Emphasizes the ability to communicate using written and oral methods. Topics include writing and the process of writing, revising, and oral communications.

ENG 100- English - Credit Hours: 5

Prerequisite: ENG 096 with a grade of "C" or better or placement by diagnostic testing

Emphasizes the development and improvement of written and oral communications abilities. Topics include basic oral communications, listening skills, basic grammar and sentence skills, paragraph development, and reading skills. Homework assignments reinforce classroom learning.

ENG 101 - English - Credit Hours: 5

Prerequisites: ENG 097/ENG 100 and RDG 097 with a grade of "C" or better 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/ENG 100 and RDG 097 with a grade of "C" or better 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.

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.

ENG 191 - Composition and Rhetoric - Credit Hours: 5

Prerequisites: ENG 098 and RDG 098 with a grade of "C" or better or ENG 111 or 101 with a grade of "C" or better or program ready status in English and Reading

Focuses on skills required for effective writing in a variety of contexts, with emphasis on exposition, analysis, and argumentation, including introductory use of a variety of research skills; explores the analysis of expository essays and creative nonfiction about issues in the humanities and in society. The course includes a review of grammar and stylistic usage in proofreading and editing, with emphasis on the rhetorical function of these mechanics. Topics include writing analysis and practice, revision, and research.

ENG 193 - Literature and Composition - Credit Hours: 5

Prerequisite: ENG 191 with a "C" or better

Develops writing skills beyond the levels of proficiency required by ENG 191, emphasizes interpretation and evaluation, and incorporates a variety of more advanced research methods; emphasizes the student's ability to read literature and literary criticism analytically and meaningfully and to communicate that information clearly. Students analyze, critically interpret, and evaluate the form and content of a range of literary texts and practice various strategies of writing. Topics include reading and analysis of fiction, poetry, and drama; advanced research methods; and writing about literature.

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: reference use and research, device and process description, formal technical report writing, business correspondence, and oral technical report presentation.

FST 211- Crime Scene Investigation II - Credit Hours: 5*Prerequisite: Provisional admission*

This course explores the concepts and investigative techniques associated with crime scene reconstruction. This course will offer the student an introduction into crime scene reconstruction. Specifically the course will include an in-depth study of blood pattern analysis, crime scene documentation, pattern evidence, firearms trajectories, wound characteristics, and report preparation.

FST 212- Interviewing and Interrogation Techniques - Credit Hours: 5*Prerequisite: Provisional admission*

Examines the practical aspects of interviewing and interrogation in both the public and private sector. Topics include distinguishing between interviewing and interrogation, interviewing victims, witnesses, and suspects, human behavior, preparation, interview environment, behavior symptoms, structured questioning techniques, statement analysis, interrogation strategy, methods of recording, legal requirements, documentation, and hypnosis.

FST 214- Documentation and Report Preparation - Credit Hours: 5*Prerequisite: Provisional admission*

Explains and demonstrates the effectiveness of the entire criminal investigation process by the quality of notes reports, and accurate documentation. An examination of what goes into the preparation, content, elements, mechanics, and format of documenting the criminal investigation process. Topics include field notes, initial information, observations, evidence, victims, witnesses, property, neighborhood canvas, crime scene, laboratory analysis and results, investigative follow-up, suspect statements, and the characteristics essential to quality report writing.

FST 215- Case Preparation and Courtroom Testimony - Credit Hours: 5*Prerequisite: Provisional admission*

Examines the case file preparation, pre-trial conference, criminal procedure, rules of evidence and testifying. Topics include case file structure, investigative summaries, property and evidence receipts, witness statements, reports, witness list exhibit list, identifying the officers responsibilities prior to, during and after trial. The sequence and procedure of the criminal trial process, with emphasis on effective testimony and witness credibility practicals.

HIT 201 - Introduction to Health Information Technology - Credit Hours: 3*Prerequisite: SCT 100*

This course focuses on orienting the student to the health information management profession. Emphasis is placed on Health Information Technology functions, structure of health care in the United States and an outline of its providers; structure and function of the American Health Information Management Association; accrediting, licensing, certifying, and government participation in health care; physician specialties, nursing, and allied health professionals' structure and function; and health record content in various settings.

HIT 202 - Legal Aspects of Health Information Technology - Credit Hours: 3*Prerequisite: SCT 100*

This course focuses on compliance with the Health Insurance Portability and Accountability Act (HIPAA) and legal principals related to patient care and health information. The importance of the health record as a legal business record and release of information functions are covered.

HIT 203 - Health Data Management- Credit Hours: 5*Prerequisite: HIT 202*

This course focuses on the health information technology functions, including the collection and management of clinical data, including nomenclatures and classification systems. Topics will also include filing systems, analysis, abstracting, registries, reimbursement methodologies, and management responsibilities.

HIT 204 - Healthcare Statistics and Research-Credit Hours: 5*Prerequisites: HIT 203, MAT 198*

This course analyzes the study of methods and formulas used in computing and preparing statistical reports for health care services and vital records. It also focuses on the study of methods and techniques used in presenting statistical data. On-line databases in comparative statistical reports are used.

HIT 205 - Quality Management and Performance Improvement-Credit Hours: 5

Prerequisites: HIT 204, BIO 194

This course introduces the student to the peer review process and the role health information plays in evaluating patient care. The course investigates the components of performance improvement programs in health care facilities, including quality assessment, utilization management, risk management, and critical clinical path - ways. State and Local standards are included as well as review of the federal government's role in healthcare and orientation to accreditation requirements of various agencies.

HIT 206 - Professional Practice Experience I- Traditional Functions - Credit Hours: 4

Prerequisites: HIT 201, HIT 210

This is a supervised internship in acute care settings. This course will prepare the student to perform the basic functions and tasks of a health information department. Activities will include application of health information management procedures learned in the classroom and lab. The HIT program director and the health care facility staff will guide the student in accomplishing the objectives set forth in the Professional Practice Experience Handbook. This course is designed to help the student gain entry-level competencies as set forth by the American Health Information Management Association (AHIMA).

HIT 207 - Professional Practice Experience II: Credit Hours: 4

Prerequisite: HIT 206.

This course is designed to give the students additional supervised activities in alternative care settings, to include internship in physician's office, nursing homes, home health care agencies and local county health departments.

HIT 208 - Professional Practice Experience III - Coding - Credit Hours: 4

Prerequisite: HIT 205

A supervised professional practice experience in the coding section of a hospital health information management department with adequate facilities to provide varied work opportunities in coding according to International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), and Current Procedural Terminology (CPT). Students will work under the supervision of qualified personnel to whom they are assigned. Students will also receive college faculty consultation. The professional practice experience is designed to enable students to obtain actual work experience in theoretical and application-based procedures previously studied. This professional practice consists of 120 hours, which can be completed on a full-time basis (40 hours/week for three weeks) or on a part-time basis over an extended period of time (e.g., 12 hours/week for 10 weeks).

HIT 210 Electronic Health Records - Credit Hours: 5

Prerequisite: HIT 205

This course prepares students to understand and use electronic health records in healthcare related facilities. The course will cover the following topics: Introduction to Information Technology -Hardware, Software, and Telecommunications, collecting and maintaining health, data, use of technology in medical records, types of data stored in an electronic health record (EHR), EHR reporting, data storage and retrieval, database architecture and data modeling, networking and connectivity, electronic communication and the Internet, healthcare information systems software, privacy and security of health records, and ergonomics and human factors.

HIT 215 Coding and Classification I - ICD-9-CM Coding - Credit Hours: 4

Prerequisites: HIT 205, MAS 112

This course provides an introduction to, and application of professional standards in assignment of codes to diagnoses and procedures using the International Classification of Diseases - 9th Revision - Clinical Modification (ICD-9-CM). Coding rules will be applied to case studies. DRG's will be assigned using a grouper.

HIT 216 Coding and Classification II - CPT Coding - Credit Hours: 4

Prerequisite: HIT 215

This course provides an introduction to, and application of professional standards in assignment of codes using the Health Care Procedure Coding System (HCPCS) and Current Procedural Terminology (CPT) coding system. Coding rules will be applied to case studies. APCs will be assigned using 3M Encoder.

HIT 217 Coding and Classification III - Insurance and Reimbursement - Credit Hours: 3

Prerequisite: HIT 216

This is an advanced course that focuses on U.S. healthcare payment systems. The course will cover reimbursement methodologies, approved code sets and their functionality, commercial healthcare insurance plans, Medicare and Medicaid, managed care plans, and revenue cycle management.

HIT 218 Coding and Classification IV - Credit Hours: 3

Prerequisite: HIT 217

This course builds on courses HIT 215 - HIT 217 and prepares the student to take the national certification examination administered by the American Health Information Management Association (AHIMA), whereupon the graduate receives the title of Registered Health Information Technician (RHIT); also prepares the student to take the certified coding specialist (CCS) examination administered by AHIMA.

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.

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.

IDS 105 - DC and AC Motors - Credit Hours: 3

Prerequisites/Corequisites: IFC 101, IFC 102, MAT 1015

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.

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.

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.

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.

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.

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.

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 - 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 student's knowledge and skills to understand and work with PLC's 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 1015

Introduces the theory and application of varying sine wave voltages and current. Topics include AC wave generation, oscilloscope operation, inductance, and capacitance.

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.

MAS 101 - Legal Aspects of the Medical Office - Credit Hours: 3

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, ethics and HIPAA guidelines.

MAS 103 - Pharmacology - Credit Hours: 5

Prerequisites: AHS 101, MAT 1012

Introduces drug therapy with emphasis on safety, classification of drugs, his or her 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.

MAS 106 - Medical Office Procedures - Credit Hours: 5

Prerequisites: Program Admission; BUS 101, AHS 101, MAT 1012

Emphasizes essential skills required for the typical medical office. Topics include medical office protocol, time management, appointment making, professional communications medical office equipment, mail services, medical references, and medical records.

MAS 108 - Medical Assisting Skills I - Credit Hours: 6

Prerequisites: AHS 101, AHS 109, BUS 101 or BUS 212, MAS 101

Corequisites: AHS 104, 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. Topics include infection control and related OSHA guidelines, prepare patients/assist physician with age and gender examinations and diagnostic procedures, vital signs/mensuration, medical office surgical and emergency and rehabilitative procedures.

MAS 109 - Medical Assisting Skills II - Credit Hours: 5

Prerequisites: MAS 103, MAS 108

Further the student's knowledge of the more complex activities in a physician's office. Topics include collection/examination of specimens; CLIA regulations/risk management venipuncture; urinalysis and hematology and chemistry evaluations; advanced reagent testing, electrocardiograms and principles of IV administration, maintaining of medication and immunization records; administration of medication including oral, topical, subcutaneous, intramuscular, and intradermal medication.

MAS 110 - Medical Insurance Management - Credit Hours: 3

Prerequisites: Program Admission, AHS 101, AHS 109, MAS 106

Corequisites: MAS 103, MAS 111, MAS 112

Emphasizes essential skills required for the medical practice. Topics include managed care, reimbursement, and coding.

MAS 111 - Administrative Practice Management - Credit Hours: 4

Prerequisites: ENG 101, AHS 101, AHS 109, BUS 101, SCT 100

Corequisites: MAS 103, MAS 106, MAS 110

Emphasizes essential skills required for the medical practice in the areas of computers and medical transcription. Topics include medical transcription/electronics health records, application of computer skills, integration of medical terminology, accounting procedures, and application of software.

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.

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 communication and following directions.

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.

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

Corequisite: MAS 152

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

MAS 152 - ICD-9 Coding II - Credit Hours: 3

Prerequisites: AHS 101, AHS 109, or BUS 212, ENG 101, BUS 101, MAS 112, MAS 153

Corequisite: MAS 151

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.

MAS 153 - CPT-4 Coding - Credit Hours: 2

Prerequisites: AHS 101 or BIO 193 and 194, AHS 109 or BUS 212, ENG 101, BUS 101

Corequisite: 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.

MAT 095 - Learning Support 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 standard notation, addition and subtraction of whole numbers, multiplication and division of whole numbers, rounding and estimating whole numbers, solving equations, applications and problem solving, exponential notation and order of operations, factorizations, divisibility, and least common multiples.

MAT 096 - Learning Support Mathematics II - Institutional Credit Hours: 5

Prerequisites: MAT 095 with a grade of "C" or better or placement by diagnostic testing

Teaches the student basic arithmetic skills needed for the study of mathematics related to specific occupational programs. Topics include whole numbers, fractions, decimals, and measurement.

MAT 097 - Learning Support Mathematics III - Institutional Credit Hours: 5

Prerequisite: MAT 096 with a grade of "C" or better 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 whole numbers, fractions, decimals, percents, measurement, geometry, and application problems.

MAT 098 - Elementary Algebra - Institutional Credit Hours: 5

Prerequisite: MAT 097 with a grade of "C" or better or placement by diagnostic testing

This course provides instruction in basic algebra. Topics include introduction to real numbers and algebraic expressions, solving equations and inequalities, graphs of linear equations, polynomial operations, and polynomial factoring.

MAT 099 - Intermediate Algebra - Institutional Credit Hours: 5

Prerequisite: MAT 098 with a grade of "C" or better or placement by diagnostic testing

This course provides instruction in intermediate algebra. Topics include rational expressions and equations, linear graphs, slope, and applications, systems of equations, radical expressions and equations, and quadratic equations. If students do not score 37 or above on the MAT 099 Posttest, they may retest a maximum of three times. They will retest the first two attempts using the COMPASS test. If a third and final attempt is necessary, the ASSET written test will be administered. After an unsuccessful retest, the student will be given practice problems to help them prepare for their next attempt. If students fail to score the 37 or above on the third attempt, they will be required to repeat MAT 099.

MAT 1011 - Business Math - Credit Hours: 5 (formally know as MAT 111)

Prerequisites: MAT 097 with a grade of "C" or better or program ready status in numerical skills

Emphasizes 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 (not to include the touch method).

MAT 1012 - Foundations of Mathematics - Credit Hours: 5 (formally known as MAT 101)

Prerequisite: MAT 097 with a grade of "C" or better or Program Ready Status in Numerical Skills

Emphasizes the application of basic mathematical skills used in the solution of occupational and technical problems. Topics include: fractions, decimals, percents, ratios and proportions, measurement and conversion, formula manipulation, technical applications, and basic statistics.

MAT 1013 - Algebraic Concepts - Credit Hours: 5 (formally known as MAT 103)

Prerequisites: MAT 098 with a grade of "C" or better 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 1015, MAT 1111 or MAT 1127.

MAT 1015 - Geometry and Trigonometry - Credit Hours: 5 (formally known as MAT 104)

Prerequisite: MAT 1013 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.

MAT 1101 - Mathematical Modeling - Credit Hours: 5 (formally known as MAT 190)

Prerequisites: MAT 099 and required Posttest score or MAT 1013 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Intermediate Algebra Skills

This course is designed as 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. Topics include: fundamental concepts of algebra; functions and graphs; linear, quadratic, polynomial, exponential, and logarithmic functions and models of real-world phenomena; systems of equations; and additional topics in algebra.

MAT 1111 - College Algebra - Credit Hours: 5 (formally known as MAT 191)

Prerequisites: MAT 099 and required Posttest score or MAT 1013 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Elementary Algebra Skills

This course emphasizes techniques of problem solving using algebraic concepts. Topics include: fundamental concepts of algebra; equations and inequalities; functions and graphs; systems of equations; optional topics including sequences, series, and probability; and analytic geometry.

MAT 1113 - Precalculus - Credit Hours: 5 (formally known as MAT 194)

Prerequisites: MAT 1111 with a grade of "C" or better

This course prepares students for Calculus. The topics discussed include an intensive study of polynomial, rational, exponential, logarithmic, trigonometric functions, and their graphs. Applications include simple maximum and minimum problems, exponential growth and decay.

MAT 1127 - Introduction to Statistics - Credit Hours: 5 (formally known as MAT 198)

Prerequisites: MAT 099 and required Posttest score or MAT 1013 with a grade of "C" or better and required Posttest score or program ready status in Numerical and Elementary Algebra Skills

Discusses the concepts and methods fundamental to utilizing and interpreting commonly used statistics. Topics include: descriptive statistics, basic probability, discrete and continuous distributions, sampling distributions, hypothesis testing chi square tests, and linear regression.

MCA 211 - CNC Fundamentals - Credit Hours: 7

Prerequisite: Program Admission

Provides a comprehensive introduction to computer numerical controller (CNC) machining processes. Topics include safety, computer numerical control, setup and operation, programming and CAD/CAM training.

MCA 213 - CNC Mill Manual Programming - Credit Hours: 7

Prerequisite: MCA 211

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) milling machines. Topics include machine safety, program calculations, program codes and structure, and program run and editing.

MCA 215 - CNC Lathe Manual Programming - Credit Hours: 7

Prerequisite: MCA 211

Provides instruction for the safe operation and manual programming of computer numerical controlled (CNC) lathes. Topics include machine safety, program codes and structure, and program run and editing.

MCA 217 - CNC Practical Applications - Credit Hours: 4

Prerequisites: MCA 213, MCA 215

Provides instruction in specialty tooling and multi-axis machining. Students will also gain experience in process control. Topics include safety, laboratory practice, fixture design and manufacturing and practical application.

MCA 219 - CAD/CAM Programming - Credit Hours: 6

Prerequisite: MCA 211

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 posting and running.

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, safety and terminology, precision layout and measurement, bandsaw setup and operation, drilling setup and operation, and quality control process.

MCH 102 - Blueprint Reading 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.

MCH 104 - Machine Tool Math I - Credit Hours: 5

Prerequisite: MAT 1012

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.

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.

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 and safety.

MCH 109 - Lathe Operations I - Credit Hours: 6

Prerequisite: Provisional Admission

Provides opportunities for students to develop skills in the use of lathes. Topics include lathes, lathe calculations, lathe setup, lathe tooling operations, and safety.

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 safety, advanced lath setup, internal lathe cutting operations, mating parts manufacturing, and advanced cutting tools.

MCH 112 - Surface Grinder Operations - Credit Hours: 6

Prerequisite: Provisional Admission

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.

MCH 114 - Blueprint Reading II - Credit Hours: 5

Prerequisite: MCH 102 and MCH 104

Continues the development of blueprint reading competencies as applied to Machine Tool Technology. Topics include geometric dimensioning and tolerance, advanced sectioning and assembly drawings.

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 setup, milling machine operation, and safety

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 advanced mill calculations, advanced mill setup, advanced mill operations, and safety.

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.

MKT 100 - Introduction to Marketing- Credit Hours: 5

Prerequisite: Provisional admission

Emphasizes the trends and the dynamic forces that affect the marketing process and the coordination of the marketing functions. Topics include marketing strategies, marketing mix, marketing trends and dynamic forces affecting markets.

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.

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.

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.

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.

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.

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 co-workers and customers. Topics include personal wellness and stress management, positive image, and job interview skills.

MSD 100 - Management Principles - Credit Hours: 5

Develops skills and behaviors necessary for successful supervision of people and job responsibilities. Emphasis will be placed on real life concepts, personal skill development, applied knowledge and managing human resources. Course content is intended to help managers and supervisors deal with a dramatically changing workplace being affected by technology changes, a more competitive and global market place, corporate restructuring and the changing nature of work and the workforce. Topics include understanding the manager's job and work environment, building an effective organizational culture; leading, directing, and the application of authority; planning, decision-making and problem-solving; Human Resource Management; administrative management, organizing and controlling.

MSD 101 - Organizational Behavior - Credit Hours: 5

Course develops skills and behaviors necessary for successful interpersonal employee relations. Topics include employee relations principles, problem solving and decision making, leadership techniques to develop employee morale, human values and attitudes, organizational communications, interpersonal communications, and employee conflict.

MSD 102 - Employment Law - Credit Hours: 5

Develops a working knowledge of the legal environment of business necessary for management and leadership. Topics include the legal system and public policy making, civil rights law, the influence of law on human resource management, alternative dispute resolution, legal selection/hiring practices, accommodation for religion and physical handicap, gender discrimination and harassment, Affirmative Action and employee protective laws.

MSD 103 - Leadership - Credit Hours: 5

Familiarizes the student with the principles and techniques of sound leadership practices. Topics include characteristics of effective leadership styles, history of leadership, leadership models, relationship of power and leadership, team leadership, and the role of leadership in effecting change.

MSD 104 - Human Resource Management - Credit Hours: 5

This course is designed as an overview of the Human Resource Management (HRM) function and the manager/supervisor's role in managing the career cycle from organizational entry to exit. It acquaints the student with the authority, responsibility, functions and problems of the HRM, with an emphasis on developing familiarity with the real world applications required of employers and managers increasingly in partnership with HRM generalists and specialists. Topics include strategic HRM, contemporary issues in HRM, ethics, diversity, and globalization, the HR/supervisor partnership, HR planning and productivity, job description analysis, development and design, recruiting, interviewing and selecting employees; performance management and appraisal systems; employee training and development; disciplinary action and employee rights; employee compensation and benefits; labor relations and employment law; and technology applications in HRM.

MSD 105 - Labor Management Relations - Credit Hours: 5

Provides students with an overview of the relationship of rank-and-file employees to management in business organizations. The nature of the workplace, the economic foundations of work organizations, and the history of the relationship between labor and management is examined. The course acquaints the student with the principles of developing positive relationships between management and labor within the context of the legal environment governing labor relations. Topics include the nature of the American workplace; the economic history of business organizations; the historical roots of management-labor relations; adversarial and cooperative approaches to labor relations; the legal framework of labor relations; employee-employer rights; collective bargaining and union organizing processes; union and nonunion grievance procedures; international labor relations and the future of labor-management relations in a changing economy.

MSD 106 - Performance Management - Credit Hours: 5

Develops an understanding of how fostering employer/employee relationships in the work setting improves work performance. Develops legal counseling and disciplinary techniques to use in various workplace situations. Topics include the definitions of coaching, counseling and discipline; importance of the coaching relationship; implementation of an effective counseling strategy; techniques of effective discipline; and performance evaluation techniques.

MSD 107 - Employee Training and Development - Credit Hours: 5

Addresses the challenges of improving the performance and career potential of employees while benefitting the student in his or her own preparation for success in the work place. The focus is on both training and career and personal development. Shows the student how to recognize when training and development is needed and how to plan, design, and deliver an effective program of training for employees. Opportunities are provided for the student to develop his or her own career plans, assess his or her work-related skills and practice a variety of skills desired by employers. Topics include developing a philosophy of training; having systems approach to training and development; the context of training; conducting a needs analysis; critical success factors for employees; learning principles; designing and implementing training; conducting and evaluating training; HR development and careers; personal career development training; and applications in interpersonal communication.

MSD 108 - Management and Supervisory Seminar - Credit Hours: 5

Prerequisite: MSD 103

Encourages students to discuss his or her 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.

MSD 109 - Managerial Accounting and Finance - Credit Hours: 5

The focus on this course is to acquire the skills and concepts necessary to use accounting information in managerial decision making. Course is designed for those who will use and not necessarily prepare accounting information. Those applications include the use of information for short and long term planning, operational control, investment decision, cost and pricing products, and services. An overview of accounting and basic concepts of finance provides an overview of financial statement analysis. Topics include accounting background, accounting equation, financial statements and statement analysis, budgeting and planning, applied analysis for management decisions, cost flow analysis in manufacturing with applications in process improvement, applications in product profitability, cost and pricing, client/server technology, computer software applications, payroll, income tax, inventory management, and ethical responsibilities.

MSD 112 - Introduction to Business and Economics - Credit Hours: 5

This course is designed to provide the student with an overview of the function of business in the market system. The student will gain an understanding of the numerous decisions that must be made by managers and owners of businesses. Topics include the market system, the role of supply and demand, financial management, legal issues in business, employee relations, ethics and marketing.

MSD 113 - Business Ethics - Credit Hours: 5

Provides students with an overview of business ethics and ethical management practices with emphasis on the process of ethical decision making and working through contemporary ethical dilemmas faced by business organizations, managers and employees. The course is intended to demonstrate to students how ethics can be integrated into strategic business decisions and can be applied to his or her own careers. The course uses a case study approach to encourage the student in developing analytical, problem solving, critical thinking and decision making skills. Topics include an overview of business ethics; moral development and reasoning; personal values, rights, and responsibilities; frameworks for ethical decision making; justice and economic distribution; corporations and social responsibility; corporate codes of ethics; business and society; consumers and the environment; ethical issues in the workplace; business ethics in a global and multicultural environment; business ethics in cyberspace and business ethics and the rule of law.

MSD 114 - Management Communication and Technologies - 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 skills in the workplace. Topics include word processing applications; spreadsheet applications; database applications; presentation technology and applications; graphical interface applications; interpersonal communications and organizational communications. Applications come from communications, HRM and general business, such as HR function training plans with a database, tracking budgets with spreadsheets, corporate newsletters on Publisher, setting up corporate e-mail accounts or developing a business Web site.

MSD 115 - Retail Management - Credit Hours: 5

Develops a working knowledge of managing a retail business from a variety of perspectives with an emphasis on store management. The emphasis is on contemporary issues in retailing, particularly the process of supervising customer service and dealing with the changing demographics of retailing. An application focus on the use of information technology, the Internet, and electronic retailing is intended to give the student hands-on experience in retail management. Topics include strategic retail management; global, cataloging and electronic retail information technology applications in retailing.

MSD 116 - Business Plan Development - Credit Hours: 5

Provides students with knowledge and skills necessary for a manager or entrepreneur to develop and implement a business plan. Topics include business/community compatibility, introduction to cash flow and break even analysis, development of product service/idea, determination of market feasibility, determination of financial feasibility, development of marketing strategy, development of operations outline and application of financial concepts.

MSD 117 - Small Business Management - Credit Hours: 5

Introduces the essentials of starting, managing and growing a small business. Topics include the role of the entrepreneur, pricing, advertising, financing, layout of facilities, inventory control, staffing, purchasing, vendor selection and relevant laws.

MSD 120 - Employee Compensation and Benefits - Credit Hours: 5

The business and public administration management course provides students with theoretical and practical knowledge of the design and implementation of effective compensation and benefits programs.

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.

MSD 156 - Supervision in a Service Environment - Credit Hours: 5

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.

MSD 202 - Production/Operations Management - Credit Hours: 5

This course provides the student with an intensive study of the overall field of production and operations management. Topics include the role of production management and managers, operational design, capacity planning, aggregate planning, inventory management, project management and quality control and assurance.

MSD 205 - Service Sector Management - 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 206 - Project Management - Credit Hours: 5

Provides a basic understanding of project management functions and processes. Topics include team selection and management; project planning, definition and scheduling of tasks; resource negotiation, allocation and leveling; project control, monitoring and reporting; computer tools for project managing and scheduling; managing complex relationships between the project team and other organizations; critical path methodology and total quality management.

MSD 210 - Team Project - Credit Hours: 5

This course utilizes team methodologies to study the field of management practices that have been studied during the management program. Topics include current issues and problems in management and supervision and state of the art management and leadership techniques. Students will be put into teams, work on team projects to demonstrate his or her understanding of the competencies of the course and will do peer evaluation.

MSD 220 - Management and Supervision Occupation Based Instruction - 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.

MUS 191 - Music Appreciation - Credit Hours: 5

Prerequisite: ENG 191 with C or better.

Explores the analysis of well-known works of music, their composition, and the relationship to their periods through writing. Students practice various modes of writing, ranging from exposition to argumentation and persuasion. The course includes a brief review of standard grammatical and stylistic usage in proofreading and editing. An introduction to locating, acquiring, and documenting information resources lays the foundation for research. Topics include the creative and critical process, the themes of music, the formal elements of composition, and the placing of music in the historical context, writing analysis, practice, revision, and research about a musical composition or compositions.

NPT 112 - Medical Surgical Nursing Practicum I - Credit Hours: 7

Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; Corequisite: NSG 112

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 cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; client care, treatment, pharmacology, medication administration, and diet therapy related to the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; and standard precautions.

NPT 113 - Medical Surgical Nursing Practicum II - Credit Hours: 7

Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110.; Corequisite: NSG 113

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 musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; client care, treatment, pharmacology, medication administration, and diet therapy related to the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; and standard precautions.

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.

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.

NPT 215 - Nursing Leadership Practicum - Credit Hours: 2

Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110.; *Corequisites:* NSG 215

Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of the nursing process, critical thinking, supervisory skills, client education methods, group and other TQM processes, and conflict resolution.

NSG 110 - Nursing Fundamentals - Credit Hours: 10

Prerequisites: AHS 101, AHS 103, AHS 104, AHS 150, BUS 212, ENG 111, MAT 1012, 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.

NSG 112 - Medical Surgical Nursing I - Credit Hours: 9

Prerequisites: AHS 102, AHS 103, AHS 109, NSG 110; *Corequisites:* NPT 112

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, prevention of illness, care of the individual as a whole, and deviations from the normal state of health in the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; client care, treatment, pharmacology, and diet therapy related to the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems; and standard precautions related to the cardiovascular, respiratory, endocrine, urinary, and gastrointestinal systems.

NSG 113 - Medical Surgical Nursing II - Credit Hours: 9

Prerequisites: AHS 102, AHS 103, AHS 109, NPT 112, NSG 110.; *Corequisite:* NPT 113

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 musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; client care, treatment, pharmacology, and diet therapy related to the musculoskeletal, neurological, integumentary, and sensory systems, mental health, and oncology; and standard precautions.

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.

NSG 215 - Nursing Leadership - Credit Hours: 2

Prerequisites: NSG 110, AHS 102, AHS 103; AHS 109 *Corequisite:* NPT 215

Builds on the concepts presented in prior nursing courses and develops the skills necessary for successful performance in the job market. Topics include: application of the nursing process, critical thinking, supervisory skills, client education methods, group and other TQM processes, and conflict resolution.

NUR 191 - Fundamentals of Nursing - Credit Hours: 6

Prerequisite: Admission to the nursing program; *Corequisites:* PSY 191, BIO 193, NUR 192

Through classroom, laboratory, and clinical experiences, this foundational nursing course introduces the student to concepts basic to nursing practice. Content presented includes foundations of nursing practice, health promotion and maintenance, promotion of activity and rest, health assessment throughout the lifespan, promotion of communication, the nursing process, promotion of psychosocial health, promotion of physiologic health, and medication administration. Beginning nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health-illness continuum, and therapeutic interventions are introduced in NUR 191 and incorporated throughout the curriculum.

NUR 192 - Dosage Calculations - Credit Hours 3

Prerequisite: Admission to the nursing program; *Corequisites:* PSY 191, BIO 193, NUR 191

This course introduces the student to basic principles of pharmacology and the basic mathematical concepts utilized in calculating medication dosages for safe administration to patients throughout the lifespan. Areas of emphasis include concepts of legal implications, pharmacokinetics, pharmacodynamics, calculation of drug dosages, and medication preparation. The student is also introduced to the role of the nurse in assessment, planning, intervention and evaluation of the care of the patient receiving pharmacologic therapy.

NUR 193 - Lifespan Nursing Care I - Credit Hours: 10

Prerequisites: NUR 191, NUR 192, BIO 193, PSY 191 *Corequisites:* BIO 194, PSY 291

Lifespan Nursing Care I (NUR 193) is offered in the second quarter of the nursing program. This is the first of a three course sequence focusing on the nursing needs of individuals throughout the lifespan experiencing common, predictable alterations in function. Content presented includes nursing care of: the preoperative patient, the oncological patient, the patient with an infectious disease, and the patient with alterations in musculoskeletal, hepatic and biliary, and respiratory function. The conceptual threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health-illness continuum, and therapeutic interventions are incorporated throughout the course.

NUR 194 - Lifespan Nursing Care II - Credit Hours: 10

Prerequisites: NUR 193, PSY 291, BIO 194 *Corequisites:* BIO 197, MAT 1111

Lifespan Nursing Care II (NUR 194) is offered in the third quarter of the nursing program. It is the second course of a three course sequence focusing on the nursing needs of individuals throughout the lifespan experiencing common, predictable alterations in function. Content presented includes nursing care of the patient with alterations in: sensorineural function, hematological function, peripheral vascular function, cardiac function, urinary/renal function, and glucose metabolism. The conceptual threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health-illness continuum, and therapeutic interventions continue to be incorporated throughout the course.

NUR 200 - LPN to ADN Transition Credit Hours: 9

Prerequisites: Admission to LPN to ADN Transition track; Completion of all required core courses.

The LPN to ADN Transition course (NUR 200) is offered in the summer quarter prior to entering the second level of the nursing program. This course is designed to initiate the transition process from LPN to ADN and builds upon previously learned basic knowledge and skills. The focus of NUR 200 is upon the nursing of individuals throughout the lifespan experiencing common, predictable alterations in function. Content presented includes: the transition process, the nursing process, and nursing care of the patient with oncology and pain, alterations in hematologic function, alterations in respiratory function, alterations in cardiac function, alterations in renal function, and alterations in glucose metabolism. The conceptual threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health-illness continuum, and therapeutic interventions continue to be incorporated throughout the course. In addition, the student will be required to independently remediate in other areas of nursing that have been identified by the pre-entrance testing process as areas of weakness.

NUR 291 - Nursing Care of the Childbearing Family - Credit Hours: 10

Prerequisites: NUR 194 or NUR 200 for transition students, BIO 197, MAT 1111 Corequisites: ENG 191, SCT 100

Nursing Care of the Childbearing Family (NUR 291) is offered in the fall quarter of the second year of the nursing program. This course focuses on the nursing needs of culturally diverse individuals experiencing pregnancy, childbirth, and the post partum period as well as women's health alterations. Growth and development from conception through the fetal period is presented. Nursing needs of the infant up to 1 year is also emphasized. Assessment of the maternity patient and the newborn are introduced. Social, legal, and ethical issues related to reproduction are explored. The curriculum threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health illness continuum, and therapeutic interventions continue to be incorporated throughout the course. The roles of the associate degree nurse as a provider of care, a manager of care, and a member of the discipline of nursing are discussed. The nurse's role in the promotion and restoration of optimal health is included.

NUR 292 - Nursing Care to Promote Mental Health - Credit Hours: 10

Prerequisites: NUR 291, ENG 191, SCT 100 Corequisites: SPC 191, HUM 191 or ENG 191 or ART 191 or MUS 191

Nursing Care to Promote Mental Health (NUR 292) is offered in the second quarter of the second year of the nursing program. This course focuses on the nursing needs of culturally diverse individuals throughout the lifespan who are experiencing alterations in mental health. Content presented includes: basic concepts and foundations in mental health nursing; therapeutic approaches to mental health care; and nursing care of the patient with anxiety, schizophrenia, somatoform disorders, dissociative disorders, adjustment and impulse control disorders, personality disorders, eating disorders, substance abuse disorders, mood disorders, aggressive behavior, and violent or abusive behavior. Additional content covered includes nursing care of the child, the adolescent, the elderly, and special needs populations with mental health disorders. Assessment of the mental health patient is introduced. The curriculum threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health illness continuum, and therapeutic interventions continue to be incorporated throughout the course. The roles of the associate degree nurse as a provider of care, a manager of care, and a member of the discipline of nursing are discussed. The nurse's role in the promotion and restoration of optimal mental health is included.

NUR 293 - Lifespan Nursing Care III - Credit Hours: 10

Prerequisites: NUR 292, SPC 191, HUM 191 Corequisites: NUR 294

Lifespan Nursing Care III (NUR 293) is the third and last course in the lifespan nursing course sequence and is offered in the last quarter of the nursing program. This course focuses on the nursing needs of culturally diverse individuals throughout the lifespan who are experiencing more complex but predictable alterations in function. It is a capstone course providing comprehensive application of acquired nursing knowledge. Content presented includes nursing care of the patient with alterations in hematologic function, integumentary function, endocrine function, immunological function, and neurological function. Additional content covered includes critical care, disaster, and emergency nursing topics. The curriculum threads of nutrition, pharmacology, growth and development, communication, cultural diversity, teaching/learning process, nursing process/critical thinking, legal/ethical factors, technological competence, safety, the health illness continuum, and therapeutic interventions continue to be incorporated throughout the course. The roles of the associate degree nurse as a provider of care, a manager of care, and a member of the discipline of nursing are discussed. The nurse's role in the promotion and restoration of optimal health is included.

NUR 294 - Nursing Seminar - Credit Hours: 3

Prerequisites: NUR 292, SPC 191, HUM 191 *Corequisites:* NUR 293

This is a non-clinical course designed to facilitate the role transition from nursing student to novice registered nurse generalist. Focus is placed on principles of management, leadership, delegation, and professional development. Employment principles and practices and the responsibility of the nurse to the community and to the nursing profession are included. Trends and issues related to legal, ethical, economic, and political influences on the health care delivery system are discussed. The curricular threads of communication, nursing process / critical thinking, legal /ethical factors, and technological competence are incorporated throughout the course. The course concludes with readiness testing in preparation for the NCLEX-RN.

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.

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.

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.

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.

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 his or her 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

PHL 105 - Clinical Practice - Credit Hours: 8

Prerequisite: PHL 103

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.

PHR 100 - Pharmaceutical Calculations - Credit Hours: 5

Prerequisites: MAT 1111 (degree) or MAT 1012 (certificate)

This course develops knowledge and skills in pharmaceutical calculations procedures. Topics include systems of measurement, medication dispensing calculations, pharmacy mathematical procedures, and calculations tools and techniques.

PHR 101 - Pharmacy Technology Fundamentals - Credit Hours: 5

Provisional Admission

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.

PHR 102 - Principles of Dispensing Medications - Credit Hours: 6

Prerequisites: PHR 100

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.

PHR 103- Principles of Sterile Medication Preparation- Credit Hours: 6

Prerequisites: PHR 101, PHR 102/Corequisites: PHR 105

Continues the development of student knowledge and skills in preparing medication, processing glassware, and maintaining an aseptic environment. Topics include aseptic and sterile techniques, parenteral admixtures, hyperalimentation, chemotherapy, filtering, disinfecting, contamination, ophthalmic preparations, infection control, and quality control.

PHR 104 - Pharmacology - Credit Hours: 5

Prerequisites: PHR 101

This course introduces the students to principles and knowledge about all classifications of medication. Topics include disease states and treatment modalities, pharmaceutical side effects and drug interactions, control substances, specific drugs, and drug addiction and abuse.

PHR 105 - Pharmacy Technology Practicum - Credit Hours: 7

Prerequisites: PHR 101, PHR 102/Corequisites: PHR 103

Orients students to the clinical environment and provides experiences with the basic skills necessary for the pharmacy technician. Topics include aseptic and sterile techniques, storage and control, documentation, inventory, filing, compounding, parenteral admixtures, filtering, disinfection, medication delivery, and hospital pharmacy techniques.

PHR 106 - Advanced Pharmacy Technology Principles - Credit Hours: 5

Prerequisites: PHR 103, PHR 105, SCT 100/Corequisites: PHR 107

This course presents the advanced concepts and principles needed in the pharmacy technology field. Topics include physician orders, patient profiles, pharmacy data systems, job readiness, legal requirements, and pharmaceutical calculations review.

PHR 107 - Advanced Pharmacy Technology Practicum - Credit Hours: 7

Prerequisites: PHR 103, PHR 105, SCT 100/Corequisites: PHR 106

Continues the development of student knowledge and skills applicable to pharmacy technology practice. Topics include dispensing responsibilities, physician orders, controlled substances, hyperalimentation, chemotherapy, patient profiles, pharmacy data systems, ophthalmic preparations, and hospital/retail/home health pharmacy techniques.

PHY 190 - Introductory Physics - Credit Hours: 5

Prerequisite: MAT 1111 or MAT 1100

Introduces the student to the basic laws of physics. Topics include Newtonian mechanics, fluids, heat, optics, light, sound, electricity, magnetism, and modern physics.

PSY 101 - Basic Psychology - Credit Hours: 5

Presents the basic principles of human behavior and their application to everyday life and work. Topics include: introduction to psychology; social environments; communications and group processes; personality; emotions and motives; conflicts, stress, and anxiety; perception and learning; and life span development.

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.

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.

PSY 291 - Human Growth and Development - Credit Hours: 5

Prerequisite: PSY 191 with a "C" or better.

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.

RDG 095 - Reading I - Institutional Credit Hours: 5

Prerequisite: Placement by Diagnostic Testing

This course provides instruction for the development of reading with emphasis on practical reading skills for the adult learner. Topics include vocabulary and comprehension skills.

RDG 096 - Reading II - Institutional Credit Hours: 5

Prerequisite: RDG 095 with a grade of "C" or better or placement by diagnostic testing

This course emphasizes the strengthening of fundamental reading competencies. Topics include vocabulary skills, comprehension skills, and study skills.

RDG 097 - Reading III - Institutional Credit Hours: 5

Prerequisites: RDG 096 with a grade of "C" or better or placement by diagnostic testing

This course emphasizes vocabulary, comprehension, and critical reading skills development. Topics include vocabulary skills, comprehension skills, critical reading skills, study skills, and content area reading skills.

RDG 098 - Reading IV - Institutional Credit Hours: 5

Prerequisite: RDG 097 with a grade of "C" or better or placement by diagnostic testing

This course provides instruction in vocabulary and comprehension skills with emphasis on critical reading skills. Topics include vocabulary skills, comprehension skills, critical reading skills, study skills, and content area reading skills.

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.

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.

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.

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.

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.

SUR 108 - Surgical Microbiology - Credit Hours: 3

Prerequisites: AHS 101; AHS 104, MAT 1012; *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.

SUR 109 - Surgical Patient Care - Credit Hours: 3

Prerequisites: MAT 100 or MAT 1012, 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.

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.

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.

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.

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.

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.

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.

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.

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 1111, 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.

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 1111, 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.

SWG 100 - Introduction to Social Services - Credit Hours: 5

Prerequisite: Program Admission

Introduction to the basic concepts, information, and practices within the field of social services. Topics include a survey of the historical development of social services; social, legal, and clinical definitions; and review of current information regarding indications for and methods of treatment and/or services.

SWG 101 - Introduction to Social Work - Credit Hours: 5

Prerequisite: Program Admission

An overview of the social work profession and introduction to the terms, concepts, people, and critical events that shaped the profession. Topics include the role of the National Association of Social Workers (NASW) and the Council on Social Work Education (CSWE) in maintaining and strengthening social work education and standards; the importance of human service agencies in fostering or diminishing the quality of services; and developing an understanding of poverty and the impact of institutional racism, sexism and ageism.

SWG 102 - Human Behavior and the Social Environment - Credit Hours: 5

Prerequisite: PSY 191 and SOC 191

A basic framework for creating and organizing knowledge of human behavior and the social environment. Introduction of social systems, life span, and strength approaches to understanding human behavior and environmental impact. Emphasis on the impact of human diversity, discrimination, and oppression on the individual's ability to reach or maintain optimal health and well-being.

SWG 103 - Social Work Methods and Procedures - Credit Hours: 5

Prerequisite: SWG 100, SWG 101, and SWG 102

Exploration of procedures to identify and evaluate an individual's and/or family's strengths, weaknesses, problems, and needs in order to develop an effective plan of action. Topics include oral and written communications essential for assessment, screening, intervention, client information, and referral.

SWG 104 - Basic Interviewing and Counseling Skills - Credit Hours: 5

Prerequisite: SWG 100, SWG 101, and SWG 102

An introduction to major theories treatment modalities including client-centered, psychodynamic, rational-emotive and reality therapy. Topics include cognitive/behavioral approaches such as behavior modification, life skills training and an introduction to experimental therapies.

SWG 105 - Abnormal Behavior - Credit Hours: 5

Prerequisite: SWG 102, PSY 191, and SOC 191

This course is designed to increase the students' knowledge and understanding of current issues and perspectives in Abnormal Behavior. It will call attention to the issue of gender as well as cultural in discussions of psychological disorders. Provide ground breaking biological research on abnormal psychology and give an integrated bio-psycho-social understanding of each disorder. Students will be given a respect of traditional approaches to understanding abnormal behavior.

SWG 200 - Special Problems with Youth - Credit Hours: 5

Prerequisite: PSY 191, SWG 100, and SWG 102

This course examines various modalities for assessing and intervening with children and adolescents with special needs. The course focuses on problem assessment, types of intervention strategies, techniques and methods for determining the effectiveness of interventions with children and adolescents.

SWG 201 - Adolescent Life Cycle - Credit Hours: 5

Prerequisite: PSY 191 and SWG 102

This course is a study of the developmental phases from adolescence through young adulthood and the tasks and goals to be achieved during those stages. Topics including physiological and psychological changes, interpersonal relationships and the individual's ability to relate to the social environment. Emphasis on critical areas of the adolescent period of the life cycle will be crucial to the student's development of skills and techniques needed to work with diverse groups.

SWG 202 - Field Experience I - Credit Hours: 8

Prerequisite: SWG 100, SWG 101, SWG 102, SWG 103, SWG 104, SWG 105, SWG 200, and SWG 201

Field Experience I and II and the concurrent one-hour seminars are designed as a continuum. Students will be introduced to the basic knowledge, values and skills that comprise the core of social work practice. Emphasis is on a generalist approach, which can be applied to work with individual, families, groups, organizations and communities. Students will become proficient at identifying multiple levels of intervention (individual, family, community, social policy) and multiple targets for change (individual, society, family, organization) for addressing a wide variety of social problems. Field experience provides the student with the opportunity to apply and integrate academic content and to develop skills that meet the requirements for entry-level professional social work assistants. Supervision in the field is provided by a qualified practitioner committed to undergraduate education. Students are required to spend a minimum of 336 clock hours in an educationally oriented field practicum, which is practical general training and experience in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates the workplace training and experience to the student's general and technical course of study. The seminar facilitates integration of classroom learning with knowledge gained in field practice settings. The seminar encourages students to discuss his or her different agency settings, wide variety of client populations and numerous field practice roles and activities. The understanding of the professional role is strengthened and is enhanced beyond the individual student's own experience. The one (1) weekly concurrent seminar during the quarter permits Field Experience students in the different agencies and settings the opportunity to share and benefit from the numerous and varied learning experiences. The seminars are held to evaluate, discuss and interpret the student's involvement and development as a beginning level professional social work assistant.

SWG 203 - Field Experience II - Credit Hours: 8

Prerequisite: SWG 100, SWG 101, SWG 102, SWG 103, SWG 104, SWG 105, SWG 200, SWG 201 and SWG 202

Field Experience I and II and the concurrent one-hour seminars are designed as a continuum. Students will be introduced to the basic knowledge, values and skills that comprise the core of social work practice. Emphasis is on a generalist approach, which can be applied to work with individual, families, groups, organizations and communities. Students will become proficient at identifying multiple levels of intervention (individual, family, community, social policy) and multiple targets for change (individual, society, family, organization) for addressing a wide variety of social problems. Field experience provides the student with the opportunity to apply and integrate academic content and to develop skills that meet the requirements for entry-level professional social work assistants. Supervision in the field is provided by a qualified practitioner committed to undergraduate education. Students are required to spend a minimum of 336 clock hours in an educationally oriented field practicum, which is practical general training and experience in the workplace. The college and the employer develop and document an individualized plan for the student. The plan relates the workplace training and experience to the student's general and technical course of study. The seminar facilitates integration of classroom learning with knowledge gained in field practice settings. The seminar encourages students to discuss his or her different agency settings, wide variety of client populations and numerous field practice roles and activities. The understanding of the professional role is strengthened and is enhanced beyond the individual student's own experience. The one (1) weekly concurrent seminar during the quarter permits Field Experience students in the different agencies and settings the opportunity to share and benefit from the numerous and varied learning experiences. The seminars are held to evaluate, discuss and interpret the student's involvement and development as a beginning level professional social work assistant.

SWG 204 - Social Policies and Programs for the Aging - Credit Hours: 5

Prerequisite: PSY 191 and SOC 191

This course explores the aging process and the experience of aging from a variety of perspectives: physiological, psychological and socio-cultural. Emphasis is placed on understanding the normative changes associated with the aging process, as well as the ways in which those changes are experienced personally and societally. Issues that will be reviewed include the realities of aging on our society; issues around health and emotional well-being and aging, including life adjustments, physical health and mental problems and changes in physical appearance; and a look into the future of aging.

SWG 205 - Group Work Intervention - Credit Hours: 5

Prerequisite: SWG 102 and SWG 104

This course focuses on the development of knowledge and skills in the use of group methods in clinical social work practice. The course emphasizes: forming the group, assessing member problems, setting goals, structuring group tasks, activities and experiences, understanding and enhancing group functioning, enabling problem-solving processes, facilitating transfer of change, evaluating individual and group change, and terminating the group. Particular attention is given to utilizing group methods in clinical social work with clients/client systems from high risk and vulnerable populations and from varying racial, cultural and socio-economic backgrounds.

TEL 123 - Principles of Applied Telecommunications - Credit Hours: 5

Covers the technical concepts of applied telecommunications, and an overview of the industry and its regulated and competitive environment. The main issues of telecommunications systems are covered. Attention is given to the following topics: analog and digital communications, signal types, modulation, multiplexing, network design concepts, relevant standards, and ISDN. These topics are presented with attention to the functional interrelationships of the various sectors of the industry, business, government, and regulatory bodies.

TEL 124 - Emerging Technologies - Credit Hours: 5

This course deals with emerging technologies, how they evolve, how to identify them, and the effect of international, political, social, economic, and cultural factors on them. Topics covered in the course include accuracy of past technology forecasts, how to improve them, international perspective on emerging technologies, future customer trends, critical thinking, and forecasting methodologies including monitoring, expert opinion, trend analysis and scenario construction.

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.

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.

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.

WLD 103 - Blueprint Reading I - Credit Hours: 3*Prerequisite: MAT 100 or MAT 1012*

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.

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.

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.

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.

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.

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.

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.

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.

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 standards. 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.

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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