| Selected Telephone Directory |  |
|------------------------------|  |
| **Shoals** | **Phil Campbell** |
| General Information | 331-5200 | 331-5200 |
| ADA Coordinator | 331-5262 | 331-5262 |
| Admissions/Records | 331-5363 | 331-6219/6227 |
| Adult Education | 331-5440 | 331-5440 |
| Advising Center | 331-5221 | 331-6353 |
| Assistant Dean of Admissions/Recruitment | 331-5263 | 331-5263 |
| Bookstore | 331-5227 | 331-6213 |
| Campus Security | 627-1526/617-4731 |
| Cashier’s Office | 331-5226 | 331-6382 |
| Center for Environmental Technology - ATN | 331-5422 | 331-5422 |
| Child Development | 331-5245 | 331-5245 |
| Discrimination/Sexual Harassment Grievances - Assistant Dean of Admissions/Recruitment | 331-5262 | 331-5262 |
| Distance Education Office | 331-5395 | 331-5395 |
| FAX (Switchboard) | 331-5222 | 331-6272 |
| Financial Aid | 331-5364 | 331-6332 |
| GED Testing | 331-5443 | 331-6297 |
| Library | 331-5283 | 331-6271/6288 |
| Office of the President | 331-5215 | 331-5215 |
| Office of the Vice President | 331-5217 | 331-6270 |
| Student Success Center | 331-5207/5243 | 331-6353 |
| Testing Center | 331-5282 | 331-6297 |
| Workforce Development Center | 331-5277 | 331-5277 |
| Workforce Solutions | 331-5289 | 331-5289 |

**CAMPUS MAPS**

**PHIL CAMPBELL CAMPUS**
- 301 W Wallace Administration Building
- 302 OC Occupational Building
- 303 S Science Building
- 304 SUB Student Union Building and Cafeteria
- 305 SA Student Activities Center
- 306 J James A. Glasgow Library
- 307 AV Audio Visual Building
- 308 Gymnasium
- 309 Center for Welding Technology
- 310 Lou B. Bevill Fine Arts Center
- M Maintenance Building
- 311 Maintenance Warehouse
- 312 Multi-Skilled Training Center

**SHOALS CAMPUS**
- 100 Victor P. Poole Administration Building
- 101 Bookstore
- 102 AC/Refrigeration/Energy Management Electrical Technology
- 103 Manufacturing Skills Standards Council (MSSC)
- 104 Federation for Advanced Manufacturing Education (FAME Program)
- 105 Design Engineering Technology/Industrial Systems Technology
- 106 Adult Education/Promotional Services
- 107 Child Development Center
- 108 Welding
- 109 Carpentry/Cabinetmaking
- 110 Medical Assisting Tech./Student Support Services/General Classroom Facility
- 111 Machine Tool/CNC
- 112 Center for Business and Computer Technology
- 113 Machine Tool/CNC Warehouse
- 114 Larry W. McCoy Learning Resources Center
- 115 Center for Industrial Training and Community Ed/Art / Technical Services
- 116 Hospitality Center
- 117 Auto Body Paint Booth
- 118 Patriot Center/Multi-Purpose Center
- 120 General Classroom Facility/Math Lab
- 121 Center for Environmental Technology
- 122 Physics, Math, LPN Nursing/EMS
- 123 Biology, Chemistry, and Physical Science
- 124 Campus Security
- 126 Automotive Collision Repair
- 127 Workforce Development Center/Testing Center
- 129 Auto Service Technology Center
- 130 North Alabama Council of Local Governments (NACOLG)
- 131 Salon and Spa Center
- 132 School of Medical Imaging
The catalog is the official announcement of the College calendar, programs, requirements, and regulations of Northwest-Shoals Community College, hereinafter referred to as the College. Students enrolling in the College are subject to the provisions stated herein. Statements regarding procedures, policies, the calendar, courses, fees, and conditions are subject to change without advance notice. Check the on-line version of the catalog for changes.

Every effort is made to insure that courses and programs described in this catalog are offered to students in an appropriate and reasonable sequence. Students should be aware, however, that admission to the College or registration for a given semester does not guarantee the availability of a specific course. Course availability is determined by student demand and instructor availability.
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Accreditation

Northwest-Shoals Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award the Associate in Arts, Associate in Science, Associate in Applied Science and Associate in Occupational Technology degrees as well as certificates in specific occupational areas. Contact SACSCOC at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404.679.4500 for questions about the accreditation of Northwest-Shoals Community College.

Nondiscrimination Policy

It is the official policy of the Alabama Community College System and Northwest-Shoals Community College that no person in Alabama shall on the grounds of race, color, disability, sex, religion, creed, national origin, or age, be excluded from participation, be denied the benefits of, or be subjected to discrimination under any program, activity, or employment. The College complies with nondiscriminatory regulations under Title VI and Title VII of the Civil Rights Act of 1964; Title IX Education Amendment of 1972; Section 504 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act (ADA) of 1990.

Women and members of minority groups are encouraged to participate in college activities.

The College is committed to a Drug Free learning and work environment through education, intervention, and enforcement.

Board of Trustees for The Alabama Community College System

Northwest-Shoals Community College is a part of the Alabama Community College System under the control of The Alabama Community College System Board of Trustees.

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Phone: 334.242.7100

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Jeffery Newman
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Calendar 2019-2020
All dates are tentative and subject to change. Check the NW-SCC website for changes.

Fall Semester 2019
August 12......................College Open ONLY to Employees
August 12..........................Professional Development
August 14 ......................Last Day of Regular Registration Period
August 14.........................Faculty Preparation Day
August 15...................Full Term and First-Mini Term Classes Begin
August 19 ....................Last Day of Add/Drop Period
September 2.....................Labor Day - State Holiday
September 30..................Last Day to Withdraw from First Mini-Term with a grade of "W"
October 7.........................First Mini-Term Exams
October 7........................First Mini-Term Ends
October 8........................Second Mini-Term Begins
November 11......................Veteran's Day - State Holiday
November 21..................Last Day to Withdraw from Full and Second Mini-Term with a grade of "W"
November 25-26............ACCA Professional Development
November 27....................Local Professional Development
November 28-29...............Thanksgiving - State Holidays
December 5....................Second Mini-Term Final Exams
December 5........................Full and Second Mini-Term Ends
December 6, 9-12...............Full Term Final Exams
December 13.......................Grades Due by 9:00 a.m.
Faculty Duty Day/Student Holiday
December 17-20...........Faculty Duty Day/Student Holiday
December 23-January 1...........Holidays - College Closed

Spring Semester 2020
January 2..........................College Open ONLY to Employees
January 2..........................Professional Development
January 6.........................Last Day of Regular Registration Period
January 6..........................Faculty Preparation Day
January 7...........Full Term and First Mini-Term Classes Begin
January 9..................Last Day of Add/Drop Period
January 20...Dr. Martin Luther King, Jr. Birthday State Holiday
February 21..................Last Day to Withdraw from First Mini-Term with a grade of "W"
February 28.........................First Mini-Term Final Exams
February 28........................First Mini-Term Ends
March 2..........................Second Mini-Term Begins
March 23-27..............................Spring Break
March 30..........................Classes Resume
April 21............................Last Day to withdraw from Full and Second Mini-Term with a grade of "W"
April 28..........................Second Mini-Term Final Exams
April 28..........................Full and Second Mini-Term Ends
April 29-30; May 1, 4-5.............Full Term Final Exams
May 6......................Grades Due by 9:00 a.m./Faculty Duty Day
May 7..........................Commencement/Graduation
May 8, 11..........................Faculty Duty Day

Summer Term 2020
May 20..............................Faculty Duty Day
May 22......................Last Day of Regular Registration Period
May 22..............................Faculty Preparation Day
May 25..............................Memorial Day - State Holiday
May 26......................Full Term and First Mini-Term Classes Begin
May 28..............................Last Day of Add/Drop Period
June 2..............................Eight Week Term Begins
June 17......................Last Day to Withdraw from First Mini-Term with a grade of "W"
June 24.........................First Mini-Term Final Exams
June 24..........................First Mini-Term Ends
June 25..........................Second Mini-Term Begins
July 3............Independence Day (observed) - State Holiday
July 21......................Last Day to withdraw from Full, Eight Week and Second Mini-term with a grade of "W"
July 28.........................Eight Week Term Final Exams
July 28..........................Eight Week Term Ends
July 28..........................Second Mini-Term Final Exams
July 28..........................Full and Second Mini-Term Ends
July 29-31; August 3-4.............Full Term Final Exams
August 5...........Grades Due by 9:00 a.m./Faculty Duty Day
Institutional Mission
Northwest-Shoals Community College provides career technical, academic, and lifelong educational opportunities using varied delivery systems; promotes economic growth; and enriches the quality of life for people of the Northwest Alabama region.

Institutional Philosophy and Goals
The College is dedicated to the belief that all people should have an equal opportunity to develop and expand their skills and knowledge throughout their lives. The College promotes this concept by making higher education available to all who can benefit through its open door admission policy, affordable tuition, and a wide variety of financial aid opportunities. The College is committed to providing an educational environment where opportunities for successful advancement will be available for all students, but particularly those who have historically been underserved. Instruction is delivered in various formats including on campus, online, and at convenient off-campus locations throughout the College’s service area. Through its programs and services, the College contributes to the quality of life in the community, supports economic development in the region, and reinforces the concept of learning as a lifelong pursuit.

The College offers educational programs and services which enable students to achieve their potential, better understand themselves and others, seek continued higher education, gain applied technology skills required for employment or career growth, and improve their quality of life. Educational opportunities provided by the College include courses for transfer, associate degrees, applied technology program certificates, training programs, developmental studies, adult education, and Ready to Work programs. Working in partnership with area universities, businesses, and industries, the College strives to support economic development by keeping the curriculum current.

Through Dual Credit/Dual Enrollment arrangements with local school systems, eligible high school students may complete courses offered by the College and receive college credit for their work. College credits and training programs are also available to those requiring college courses for promotion and/or professional certification.

The College recognizes the need to provide student support services. A Student Success Center is housed on each campus to assist students with a variety of college success initiatives. Professional advisors help students succeed and manage their lives and careers through financial aid assistance, and personal and academic advisement. Students with additional needs have access to a variety of services provided by the College. The College also provides appropriately furnished and well maintained physical facilities, classroom equipment, and grounds. In addition, extra-curricular activities expand and enrich student experiences at the College.
**History of the College**

Northwest-Shoals Community College is a comprehensive two-year public institution of higher learning providing vocational, technical, academic and lifelong educational opportunities for the northwest Alabama Region. The College is part of the Alabama College System, a statewide system of postsecondary colleges, governed by the Alabama Board of Education. Northwest-Shoals derives its original charter from the Alabama legislature through the Alabama Trade School and Junior College Authority Act of 1963.

The Northwest-Shoals service area is comprised of the counties of Colbert, Franklin, Lauderdale, Lawrence and the western portion of Winston. The College operates two campuses – the Shoals Campus in Muscle Shoals and the Phil Campbell Campus in Phil Campbell.

The Phil Campbell Campus was founded in 1963 as Northwest Alabama State Junior College to provide access to postsecondary education for citizens of the rural counties of northwest Alabama. It was the first public junior college in what was to become the Alabama College System and was accredited by the Commission on Colleges of the Southern Association of Colleges and Schools in 1967. The Shoals Campus, founded in 1966 as Joe Wheeler State Trade School, provided occupational and technical training.

Both institutions recognized that the narrowness of their focus did not meet their constituents’ educational needs. In 1973 Muscle Shoals State Technical Institute enhanced its curriculum and obtained accreditation from the Commission on Occupational Education Institutions. In 1977, with the approval of the Alabama State Board of Education, Northwest Alabama State Junior College established a branch campus in Tuscumbia primarily to offer first and second-year college courses.

In 1989 the Alabama State Board of Education created Northwest Alabama Community College through the consolidation of Northwest Alabama State Junior College in Phil Campbell and Northwest Alabama State Technical College in Hamilton. Shoals Community College was created through consolidating Muscle Shoals State Technical College and the Tuscumbia Campus of Northwest Alabama State Junior College. The Commission on Colleges of the Southern Association of Colleges and Schools granted accreditation to Northwest Alabama Community College in 1990. Shoals Community College received its accreditation in 1991.

Northwest-Shoals Community College was formed in 1993 by the Alabama State Board of Education through the merger of Northwest Alabama Community College's Phil Campbell Campus and Shoals Community College. The merger was enacted in order to provide more effective and efficient educational services to residents of rural northwest Alabama and the Shoals area.

Additionally, the merger provided business and industry with a single focal point for addressing educational and training needs and provided a single workforce development center to assist communities with economic development activities. The merger was reviewed and approved by the Commission on Colleges of the Southern Association of Colleges and Schools. Reaffirmation of accreditation was granted by SACSCOC in December, 2009. Northwest-Shoals Community College, composed of two campuses, has adequate physical facilities to support an environment in which academic, social, physical, and emotional development may be fostered. The two campuses are located in Muscle Shoals and Phil Campbell. The campus in Muscle Shoals is designated as the Shoals Campus.

**College Campuses**

**Phil Campbell Campus**

The Phil Campbell Campus is located approximately 30 miles south of the Shoals campus. It is easily accessible from either U.S. Highway 43 or Alabama Highway 5/AL Hwy 13. Located on a scenic 100-acre site one mile southwest of the town of Phil Campbell, the campus provides academic and applied technology programs and a full complement of student and community services. The Bevill Fine Arts Center is among the premier cultural centers in northwest Alabama and the home of numerous concerts, musicals and special events for both the College and local communities.

**Shoals Campus**

The 110-acre Shoals Campus houses academic and applied technology programs. The Patriot Center, a multipurpose facility, offers the largest seating capacity in Colbert County. A child development center with a qualified staff to care for children is available to students and the community. Also housed on the Shoals Campus are allied health programs, science labs, special programs such as adult basic education, and Alabama Technology Network.

**Grants and Contracts**

In all cases of external grants and contracts, Northwest-Shoals Community College will maintain full control of instructional and other institutional activities. The College assures that any external grant or contract shall comply with the overall mission of the institution and that the College will comply with all pertinent state and federal regulations, legislation, and procedures. The College shall in no way compromise its commitment to maintain legal and ethical administrative practices as well as accreditation standards.

**Commitment to Institutional Integrity**

Northwest-Shoals Community College complies with the Alabama Ethics Commission’s advisory opinions concerning private consulting that may be conducted by full-time employees. The Chancellor’s guidelines in regard to “conflict of interest” issues require the approval of the President, Vice President, Deans and Department or Division Chairperson for outside, compensated consulting activities.
Admission to the College
Student Recruitment
The mission of student recruitment is to help make the general public and prospective students aware of the College’s many programs which are available to help each individual meet his or her needs. The College is committed to seeking out members of diverse groups and providing an educational environment where opportunities for successful advancement will be available to those who have historically been underserved.

The College representatives provide information to prospective students by working with community and non-traditional groups, visiting high schools, selected clubs and agencies, minority groups, retirees and other citizens in the College service area.

Contact recruitment personnel to arrange for campus tours or visits to area high schools or other community events: Shoals 256.331.5333, Phil Campbell 256.331.6261 or the College’s Recruitment Manager, Lindsey Oliver at 256.331.6239.

Admission Process
Northwest-Shoals Community College has an open-door admission policy for all U.S. Citizens and eligible Non-Citizens that provides higher education for individuals who meet minimum admission requirements as set forth by the policies of the Alabama Community College System (ACCS). No student shall be discriminated against on the basis of any impermissible criterion or characteristic including, but not limited to, race, color, national origin, religion, marital status, disability, gender, age or any other protected class as defined by federal and state law.

Required Admission Documentation:

1. Northwest-Shoals Community College application for admission (may be submitted electronically via the MyNW-SCC portal found on the NW-SCC website or mailed to the Admissions Office on either the Muscle Shoals Campus or Phil Campbell Campus)

2. One of the following forms of primary identification (Legible identification may be presented to the Admissions Office in person, by mail or electronically submitted to admissions@nwscc.edu)
   • Unexpired Alabama Driver’s License or instruction permit
   • Unexpired U.S. Passport
   • Unexpired Alabama identification card
   • Unexpired U.S. Permanent Resident Card
   • Resident Alien Card – Pre-1997
   • U.S. Alien Registration Receipt Card (Form I-151) prior to 1978
   • I-797 Form with expiration date
   • Voter identification card from a state that verifies lawful presence

3. Official high school transcript with posted graduation date or GED certificate with passing scores (students who have earned a Baccalaureate Degree are not required to submit a high school transcript)

4. Official college transcripts (if applicable)

5. Approved Transient Letter (if applicable)

Admission Status:
There are two types of admission status: unconditional and conditional.
1. Unconditional status (AD): Students who have submitted all required documentation may be admitted unconditionally.
2. Conditional status (CA): Students who have not submitted all required documentation may be admitted as conditional status. Failure to provide documentation by the end of the first semester of enrollment will prevent a student from future registration and official transcript release. Students with a conditional admission status are not eligible for federal financial aid.

Admission Classification
Accelerated: A secondary education student who is earning college credit while still in high school. Accelerated credit may not substitute for high school requirements.

Audit: An applicant who wishes to enroll for classes only on an audit basis.

Dual Enrollment/Dual Credit: A secondary education student who is earning college credit while still in high school. Dual enrollment credit may be applied toward high school and college.

First Time: A student who has no prior postsecondary experience.

International: A student who is a citizen of another country.

Returning (Readmit): A student who has previously attended Northwest-Shoals Community College as a credit student and is returning after a break in continuous enrollment.

Transfer: A student who previously attended another college or university.

Transient: A student enrolled at another college or university who is taking classes at Northwest-Shoals Community College for the express purpose of transferring credit to the home college or university.

Classification Requirements
Accelerated High School Student
This admission status is available to students attending public, private, parochial, or church/religious schools, or who are receiving instruction from a home school offering educational instructions in grades K-12, home schooled students and those receiving instruction through private tutors. Accelerated students receive college credit but not high school credit. High school approval is required.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID) OR a certified copy of birth certificate and a student INOW profile sheet, signed and dated by the high school principal
3. Accelerated Recommendation Form signed by the high school principal or designee

Applicants who fail to satisfy the forms of identification requirement will not be admitted to Northwest-Shoals Community College.

Admission to the College does not mean acceptance or admission to certain health education programs in the College such as Nursing, Emergency Medical Services or Medical Assisting Technology, which may have additional standards for admission and progression.

Applicants should refer to the program descriptions in this Catalog and/or contact the specific program director/chairperson for additional information. Any and all elements of admission requirements are subject to change with prior notice.
Minimum Requirements:
A student is eligible for admission as an accelerated student if he/she meets all of the following criteria:

1. The student has completed the 10th grade;
2. The high school principal or his/her designee certifies the student has a minimum cumulative 3.0 average and recommends the student be admitted;
3. The student enrolls only in postsecondary courses for which high school prerequisites have been completed.

Students may enroll in academic, career and technical, or health profession courses/programs in accordance with additional written guidance issued by the Chancellor. Enrolled students must pay tuition and fees as required by Northwest-Shoals Community College.

Exceptions may be granted by the Chancellor for a student documented as gifted and talented. Exceptions apply only to minimum requirements 1 and 3 listed above.

Audit Student
An audit student is an applicant who wishes to enroll for classes only on an audit basis. The applicant must comply with the college admission requirements. Audit students must abide by class attendance policy and all standard course requirements, excluding the completion of course examinations. The cost of auditing a course is the same as enrolling for credit.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID)
3. Official high school transcript/GED documenting graduation*
4. Official college transcripts from all previously attended institutions*

*Students who have achieved a minimum of a baccalaureate degree are only required to submit a transcript from the granting institution for admission to the college but may need to submit other transcripts for evaluation of transfer credit for financial aid purposes.

Dual Enrollment/Dual Credit High School Student
Dual Enrollment for Dual Credit is an enrichment opportunity allowing eligible high school students to earn high school and college credits for courses taken through an Alabama Community College System (ACCS) institution while still enrolled in high school.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID) OR a certified copy of birth certificate and a student INOW profile sheet, signed and dated by the high school principal

Required Dual Enrollment Forms:
1. Eligibility Form signed by student, a parent and high school counselor (once every academic year)
2. Dual Enrollment registration form signed by high school counselor and student (once every semester).

Minimum Requirements:
1. The student must satisfy the requirements prescribed in Procedure 801.01: Admission: General, with the exception of proof of high school graduation or GED completion.
2. The student must be in grade 10, 11, or 12. An exception may be granted by the Chancellor for students documented as gifted and talented in accordance with Alabama Administrative Code 290-8-9.12.
3. The student seeking enrollment in Dual Enrollment for Dual Credit coursework must have a minimum cumulative (unweighted) high school grade point average of 2.5 on a 4.0 scale for initial admission in completed high school courses.
4. To maintain continuous eligibility, student must earn a ‘C’ or better in all attempted college courses. Students who fail to meet this minimum GPA or withdraw from a course will be suspended from the program for a minimum one term. The one-term suspension may not be served during the summer.
5. The student must have written approval of the appropriate principal or career and technical education program representative (if applicable) and counselor. Dual enrollment for Dual Credit eligibility for students enrolled in private, home school/private tutor, parochial, or church/religious secondary educational entities must be documented in writing by an appropriate school official. Approval from secondary school officials indicates that the student has demonstrated both academic readiness and social maturity.
6. All dually enrolled students must take a state-approved college placement test, where minimum placement is required, specifically for college-level English, math or reading courses. Students in the 10th or 11th grade registering only for career and technical courses may take a state-approved placement test but are not required to do so. All students in the 12th grade must take a state-approved college placement test prior to registering for dual enrollment courses.
7. Students must meet all applicable pre-requisites prior to enrolling in courses.
8. Developmental courses (those numbered below 100) are not offered through dual enrollment.
9. See Dual Enrollment for Dual Credit Handbook for more details.

First Time Freshman
This admission status applies to students who have not previously attended any college after graduation from high school/GED.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID)
3. Official high school transcript/GED documenting graduation

International
This admission status applies to students who are citizens of another country.

NW-SCC is authorized by the United States Citizenship and Immigration Services to admit international students. Admission to NW-SCC does not ensure admission to any individual program or course. All international students must report immediately to the Registrar/Primary Designated School Officer upon arrival to the College. It is extremely important that a non-immigrant maintain their status (F1) while in the United States. F1 status can be properly maintained by registering as a full-time student each semester, maintaining a successful GPA, and following the correct transfer policies. Registration/completion of a minimum 12 semester credit hours is required. All required documents must be on file with the Registrar at least 30 working days prior to the registration dates for fall and summer semesters. All spring documents must be submitted by the last class day in November. The college reserves the right to limit the number of international students admitted during any academic year.
Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. A certified original translated and evaluated copy of the high school transcript
3. A certified original translated and evaluated copy of the student’s college transcript* 
4. Original transcripts from all US institutions attended
5. A current and valid passport/visa
6. A current photo (passport-size, preferred)
7. A minimum score of 5.5 on the International English Language Testing System (IELTS), a total score of 61 on the Internet-based Test of English as a Foreign Language (TOEFL), a 2A on the Step EIKEN Test in Practical English Proficiency, or a total score of 550 on the paper-based TOEFL. Students may not enroll in regular college courses until the English Language requirement is met. (The ESL exam may be waived for students from all English speaking countries including but not limited to: Anguilla, Antigua and Barbuda, Australia-Australian English, the Bahamas, Barbados, Bermuda, Belize-Belizean Kriol, the British Indian Ocean Territory, the British Virgin Islands, Canada-Canadian English, the Cayman Islands, Dominica, the Falkland Islands, Gibraltar, Grenada, Guam, Guernsey-Channel Island English, Guiana, Ireland-Hiberno English, Isle of Man-Manx English, Jamaica-Jamaican English, Jersey, Montserrat, Nauru, New Zealand-New Zealand English, Nigeria, Pitcairn Islands, Saint Helena, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Tanzania, Singapore, South Georgia and the South Sandwich Islands, Trinidad and Tobago, the Turks and Caicos Islands, The Gambia, The United Kingdom, the U.S. Virgin Islands, and the United States.
8. A signed notarized statement verifying adequate financial support
9. Receipt of payment of F-1-I901 Student Exchange Visitor Information System (SEVIS) fee
10. A medical health history with proof of vaccination
11. Documentation demonstrating adequate accident, sickness and life insurance that includes evacuation repatriation. Students must maintain insurance coverage throughout the duration of their I-20.

*The criteria for awarding credit for work completed in foreign colleges and universities will be the same as for other institutions within the United States. Students wishing to receive transfer credit for such foreign study must provide an English translation and a detailed course-by-course evaluation report. The reports must outline recommendations for awarding specific credit for specific courses. Students must request an official course-by-course evaluation from a National Association of Credential Evaluation Serves (NACES) approved agency. For a comprehensive list of approved agencies, please visit www.naces.org.

Returning (Readmit)
This admission status applies to any student who has previously attended Northwest-Shoals Community College as a credit student and is returning after a break in continuous enrollment. The summer term is excluded. Students who only attended Northwest-Shoals Community College as a dual enrollment student should apply as a first-time freshman if he/she plans to attend Northwest-Shoals Community College after high school graduation.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID)
3. Official high school transcript/GED documenting graduation (if not previously received)
4. Official college transcripts from all previously attended institutions (if not previously received)

Transfer
This admission status applies to any student who has previously attended any college after graduation from high school/GED.

Required Admission Documentation:
1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID)
3. Official high school transcript/GED documenting graduation*
4. Official college transcripts from all previously attended institutions*

*Students who have achieved a minimum of a baccalaureate degree are only required to submit a transcript from the granting institution for admission to the college but may need to submit other transcripts for evaluation of transfer credit for financial aid purposes.

Initial Academic Status of a Transfer Student:
• Good Standing – A transfer student whose cumulative grade point average at the transfer college(s) is 2.0 or above on a 4.0 scale will be admitted with a status of Good Standing.
• Academic Probation – A transfer student whose cumulative grade point average at the transfer college(s) is less than a 2.0 on a 4.0 scale will be admitted on Academic Probation. The applicant's transcript will read Admitted on Academic Probation for the appropriate term.
• Suspension – An applicant who has been academically suspended at another accredited postsecondary college may be admitted as a transfer student only upon appeal to the Admissions Committee of the College. A student admitted upon appeal will enter on Academic Probation. The transcript will read Admitted Upon Appeal – Academic Probation.

General Principles for Transfer Credit:
1. Coursework transferred or accepted for credit toward an undergraduate program must represent collegiate coursework relevant to the formal award with course content and level of instruction resulting in student competencies at least equivalent to those of students enrolled in the institution’s own undergraduate formal award programs.
2. Courses successfully completed in compliance with required standards at other regionally accredited postsecondary institutions will be accepted for transfer as potentially creditable toward graduation requirements.
3. A transfer student from a collegiate institution not accredited by the appropriate regional association may request an evaluation of transfer credits after completing 15 semester hours with a cumulative GPA of 2.0 or above at Northwest-Shoals Community College.
4. A transfer grade of ‘D’ will be accepted only when the transfer student’s cumulative transfer GPA is 2.0 or above. If the student has a cumulative transfer 2.0 or above, the grade of ‘D’ will be accepted the same as that for a native students.
5. Credit may be extended based on a comprehensive evaluation of demonstrated and documented competencies and previous formal training.

Transient
This status applies to any student who is currently enrolled at another postsecondary college/university and seeks credit that will transfer back to his/her primary college. It is the student's responsibility to formally request the Northwest-Shoals Community College transcript be sent to their primary institution. Transient students are not eligible for federal financial aid.
Required Admission Documentation:

1. Northwest-Shoals Community College application for admission
2. One primary form of ID (government issued ID)
3. Transient letter from primary college listing approved courses.

Admission of Students to Special Programs and Community Services
Students Keep same paragraph as catalog currently has, but remove continuing education. The areas that need removed are highlighted on the catalog copy

Admission of Students to Special Programs, and Community Services Students

Applicants to customized training for business and industry programs, community services and courses not creditable toward an associate degree may be admitted, provided they complete the application for admission for special programs and provided they are at least 17 years of age. Admission requirements are established appropriate to the nature of the particular course. Students may request Special Enrollment status for these programs. Applicants not meeting the minimum admission requirements may be admitted only to non-credit programs. Additional information may be obtained by contacting the Director of Training for Existing Business and Industry at 256.331.5289.

Admission of Distance Education Students

Students interested in taking distance education courses should follow the regular admissions and financial aid processes. Students may contact these offices by phone, email or in-person for assistance. New or returning students who have never taken a distance education course at the College should complete the distance education orientation by the first day of class. This orientation gives students valuable information about the learning management system (Moodle), technology requirements, student services, learning resources, and how to be a successful online student. After completing the orientation, students may work with their assigned advisor or advising center via the college website, email or phone for assistance with advising or registration. Additional information on technical support, student services, and a variety of other resources for distance education students is available to all current students through a Technology Resources site linked on the College website homepage.

Students will be provided with a secure login to access Moodle and myNW-SCC. Distance education courses are not self-paced; assignment deadlines are given throughout the semester. Different states require that the College seek authorization or exemption to offer distance education courses to students in those states. Students residing in states other than Alabama should verify via the College website that the College has authorization to offer courses in their state of residency. Students pursuing certification or licensure for a program in a state other than Alabama should also verify the acceptance of course work in their state of residency.

For further information, visit the College website at nwsc.edu or contact the Distance Education Office at 256.331.5395 or cookson@nwsc.edu.

Admission Appeals

The College Admissions Committee verifies the eligibility of students seeking admission or readmission to the College through the appeals process and to Health Related Programs with special admission criteria. Applicants subject to review upon appeal initiated by the student include:

1. Prospective students who are on academic suspension or dismissal from another postsecondary institution;
2. Any prospective student who has been denied admission to the College;
3. Prospective students who have been denied admission to a particular program;
4. Students requesting readmission to the College after being placed on academic suspension from the College;
5. Students who have been suspended from a particular program.

Students or prospective students seeking an appeal must submit their request in writing to the Assistant Dean of Recruitment, Admissions and Financial Aid no later than 3 days prior to the start of the term (see College Catalog or Semester Course Schedules for dates). A student seeking admission may have his/her case presented before the Committee in absentia or in person. The meeting of the Admissions Committee shall not be considered a due process hearing, but rather a petition for admission/readmission. For further information, please contact the Assistant Dean of Recruitment, Admissions and Financial Aid.
Notes...
Tuition and Fees

The following information reflects the current tuition and fee schedule approved by the Alabama Community College System Board of Trustees. Regular courses are defined as day, night, weekend, off-campus, mini-terms, videoconferencing, and web-assisted. Distance Education courses are defined as blended or online, and with the exception of remote test proctoring fees, tuition and fees are equivalent to those for regular courses. Please see additional information below the chart on distance education test proctoring fees. The College reserves the right to change, modify, or alter fees, charges, expenses, and costs of any kind without notice as approved by the Alabama Community College System Board of Trustees.

Tuition and fees above 19 semester hours will be calculated at the current, appropriate rate. The in-state tuition rate shall be extended to students who reside outside of Alabama in a state and county within fifty (50) miles of either campus. See chart on Page 16 and contact the Business Office for details.

NOTE: Tuition and fee charges are those in effect for 2019-2020 academic year. They are subject to change, so for current charges, contact the Business Office at either campus.

### Alabama Residents

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<tr>
<th>Credit Hours</th>
<th>Tuition</th>
<th>Technology Fee</th>
<th>Facility Renewal Fee</th>
<th>Building Fee</th>
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</table>

Distance Education students are required to take at least one proctored exam on campus in order to verify student identity. Some courses require multiple proctored exams. Although we make every effort to accommodate distance education students with low cost or no cost test proctoring services, students who are unable to take exams at either of the NW-SCC campus testing centers will be responsible for any charges incurred at remote test proctor sites and will pay any required fees directly to these sites. Many courses utilize ProctorU, a remote test proctoring service where students connect online with a proctor via webcam and microphone. Proctoring fees with ProctorU typically range from $15-$25 per exam, and students are required to have a webcam with microphone and a high speed internet connection. Please contact the NW-SCC Distance Education Office at 256.331.5395 if you need assistance or have questions about using a remote proctor.
The Terms and Conditions for Assessing Tuition are as follows:

**Resident Student**

A Resident Student shall be charged the in-state tuition rate established by the ACCS Board of Trustees.

A Resident Student is an applicant for admission who is a citizen of the United States or a duly registered resident in the State of Alabama for at least 12 months immediately preceding application for admission. A Resident Student's status is determined by the State of Alabama if the applicant has resided and had habitation, home, and permanent abode in the State of Alabama for at least 12 months immediately preceding application for admission. Consequently, an out-of-state student cannot attain Resident Student status simply by attending school for twelve months in the State of Alabama.

In the case of minor dependents seeking admission, the parent(s) or legal guardian of such minor dependent must have resided in the State of Alabama for at least 12 months immediately preceding application for admission. If the parents are divorced, residence will be determined by the residency of the parent to whom the court has granted custody.

**Non-Residents of Alabama and Foreign Students**

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Tuition</th>
<th>Technology Fee</th>
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<th>Building Fee</th>
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**MINOR**: An individual who because of age, lacks the capacity to contract under Alabama law. Under current law, this means a single individual under 19 years of age and a married individual under 18 years of age, but excludes an individual whose disabilities of non-age have been removed by a court of competent jurisdiction for a reason other than establishing a legal residence in Alabama. If current law changes, this definition shall change accordingly.

**SUPPORTING PERSON**: Either or both parents of the student, if the parents are living together or if the parents are divorced or living separately, then either the parent having legal custody or, if different, the parent providing the greater amount of financial support. If both parents are deceased or if neither has legal custody, supporting person shall mean, in the following order: the legal custodian of the student, the guardian, and the conservator.

In determining Resident Student status for the purpose of charging tuition, the burden of proof lies with the applicant for admission.

A. Students participating in the Southern Regional Electronic Campus (or any successor organization) shall be considered Resident Students for tuition purposes.

B. An individual claiming to be a resident shall certify by a signed statement each of the following:
   1. A specific address or location within the State of Alabama as his or her residence.
   2. An intention to remain at this address indefinitely.
   3. Possession of more substantial connections with the State of Alabama than with any other state.
C. Though certification of an address and an intent to remain in the state indefinitely shall be prerequisites to establishing status as a resident, ultimate determination of that status shall be made by the institution by evaluating the presence or absence of connections with the State of Alabama. This evaluation shall include the consideration of all the following connections:

1. Consideration of the location of high school graduation;
2. Payment of Alabama state income tax as a resident;
3. Ownership of a residence or other real property in the state and payment of state ad valorem taxes on the residence or property;
4. Full-time employment in the state;
5. Residence in the state of a spouse, parents, or children;
6. Previous periods of residency in the state continuing for one year or more;
7. Voter registration and voting in the state; more significantly, continuing voter registration in the state that initially occurred at least one year prior to the initial registration of the student in Alabama at a public institution of higher education;
8. Possession of state or local licenses to do business or practice a profession in the state;
9. Ownership of personal property in the state, payment of state taxes on the property, and possession of state license plates;
10. Continuous physical presence in the state for a purpose other than attending school, except for temporary absences for travel, military service, and temporary employment;
11. Membership in religious, professional, business, civic, or social organizations in the state;
12. Maintenance in the state of checking and savings accounts, safe deposit boxes, or investment account;
13. In-state address shown on selective service registration, driver’s license, automobile title registration, hunting and fishing licenses, insurance policies, stock and bond registrations, last will and testament, annuities, or retirement plans.

Students determined to be eligible for resident tuition will maintain that eligibility upon re-enrollment within one full academic year of their most previous enrollment unless there is evidence that the student subsequently has abandoned resident status for example, registering to vote in another state. Students failing to re-enroll within one full academic year must establish eligibility upon re-enrollment.

Non-Resident Student

A non-resident student, one who does not meet the standard of having resided in the State of Alabama for at least 12 continuous months immediately preceding application for admission, shall be charged the in-state tuition rate established by the State Board of Education if the student satisfies one of the following criteria, or, if the student is a dependent (as defined by the Internal Revenue Code), then the person supporting the student satisfies one of the following criteria under the following circumstances:

1. The student or the person(s) supporting the student is a full-time permanent employee of the institution at which the student is registering; OR
2. The student or the person(s) supporting the student can verify full-time permanent employment in Alabama and will commence said employment within 90 days of registration; OR
3. The student or the person(s) supporting the student is a member of the United States military on full-time active duty stationed in Alabama under orders for duties other than attending school, as required by ACT 2013-423; OR
4. The student or the person(s) supporting the student is an accredited member of a consular staff assigned to duties in Alabama.

The student is eligible for in-state tuition if the student resides outside of Alabama in a state and county within 50 miles of a campus of the Alabama Community College System institution which the student plans to attend, provided, however, that the campus must have been in existence and operating as of October 1, 2008. PLEASE NOTE THAT THE DESIGNATIONS ARE BY CAMPUS AND NOT BY INSTITUTIONS.

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Out-of-State Student

Any applicant for admission who does not fall into one of the categories noted above shall be charged a minimum tuition of two times the resident tuition rate charged by that institution.

Students initially classified as ineligible for resident tuition will remain that classification for tuition purposes until they provide documentation that they have qualified for resident tuition.

Refunds to Students

Northwest-Shoals Community College strives to improve the service provided to our students and prospective students. The U.S. Department of Education recognizes the need for improving disbursement methods and made changes to its policy, 34 CFR 668.164, allowing institutions to require banking information from all students. The information will be solely used for refund disbursement and will remain completely confidential as required by FERPA. All refunds from Northwest-Shoals are electronic.
Refund Policy

Refund for Complete Withdrawal

A student who withdraws or is withdrawn from ALL classes before the first day of class will be refunded the total tuition and other institutional charges.

A student who withdraws or is withdrawn COMPLETELY on or after the first day of class but prior to the end of the third week of class will be refunded according to the official withdrawal date as follows:

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<th>Percent of tuition refunded</th>
<th>Withdrawal during first week</th>
<th>75% of net tuition</th>
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<td>Withdrawal after end of third week</td>
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Withdrawal periods for refunds during mini-terms may be prorated.

Administrative Fee

An administrative fee not to exceed 5 percent of tuition and other institutional charges or $100, whichever is smaller, shall be assessed for each withdrawal within the period beginning the first day of class and ending at the end of the third week of class.

Refund for Partial Withdrawal

Students who do not COMPLETELY withdraw from the College but drop a class during the regular drop/add period will be refunded the difference in tuition paid and the tuition rate applicable to the reduced number of hours, including fees appropriate to the classes dropped. There is no refund due to a student who PARTIALLY withdraws after the official drop/add period.

Refund for Alabama National Guard and Reservist Called to Active Duty

Students who are active members of the Alabama National Guard or reservists who are active duty military and are called to active duty in the time of national crisis shall receive a full tuition refund at the time of withdrawal, if such students are unable to complete the term due to active duty orders or assignment to another location.

Return to Title IV Policy

The College complies with Federal regulations for the Return of Title IV Funds. When a student withdraws during a payment period or period of enrollment, the amount of Federal Title IV aid program assistance earned up to that point is determined by a specific formula on a pro-rata basis.

If a student completed 30 percent (30%) of the payment period or period of enrollment, he or she earns 30 percent (30%) of the assistance the student was originally scheduled to receive. Once the student completes more than 60 percent (60%) of the payment period or period of enrollment, he or she earns all for the assistance. The 60% date will be published in each semester schedule.

The withdrawal date is the date the student submits a completed withdrawal form to the Admissions Office. For students who unofficially withdraw without notification, the return is calculated based on the last date of attendance reported by the instructor at the end of the payment period, or if there is no recorded last date of attendance, the withdrawal date is the mid-point (50%) of the term.

If the student receives more assistance than earned, the excess funds must be repaid. The school must return a portion of the excess equal to the lesser of the institutional charges multiplied by the unearned percentage of the funds, or the entire amount of the excess funds. Students will be required to repay any funds the institution had to pay the USDE as a result of their withdrawal. Any loan funds that the student must return must be repaid in accordance with the terms of the promissory note. That is, the student makes scheduled payments to the holder of the loan. Students who do not meet the policy guidelines and have charged registrations to financial aid will be notified that they must pay the cashier in order to maintain their class schedule.

Students who fail to pay for their classes will be administratively withdrawn for the semester.

The student will be notified in writing within 30 days of the withdrawal. The Cashier’s office will place the student on hold until the balance is paid in full.

If the student received (or the College received on the student's behalf) less assistance than the amount earned, the student may receive a post withdrawal disbursement (PWD). The College will notify students in writing regarding the type and amount of PWD funds available. The student may accept or decline all or part of the disbursement and must notify the school within 30 days.

Return of Title IV funds are calculated and returned to USDE within 30 days of notification of withdrawal. Title IV funds are returned in the following order: Direct Unsubsidized Loans, Direct Subsidized Loans, then Pell Grants.

Books and Supplies (see College Bookstore page 163)

Note: A sample of how the tuition refunds are calculated can be obtained by contacting the Business Office at the College.

Guidelines and Definitions for Refunds

I. Refund for Complete Withdrawal

A student who officially or unofficially withdraws from all classes before the first day of class will be refunded the total tuition and other institutional charges.

II. Unofficial Withdrawal

In the case of an unofficial withdrawal, the withdrawal date is the last recorded date of class attendance (as documented by the College). Further, the College is required to determine the withdrawal date for an unofficial withdrawal within 30 days of the end of the period of enrollment, the academic year, or the program, whichever is earliest.

III. First Day of Class - Definition

The first day of class is the official instructional day of class as stated in the College calendar. There is only one first day for all classes in any term.

IV. Other Institutional Charges

Other institutional charges during the first, second, or third week of class include room, board, and fees as defined in the State Board Policy Manual 804.01.

V. Week - Definition

First day of class (See III) running seven calendar days (inclusive of Saturday and Sunday).

VI. Net Tuition

Net tuition charges are the sum of tuition and all other institutional charges less the Refund Administrative Fee.
Student Financial Services

Financial Assistance

Offices are located in the Student Services Building on the Shoals Campus and the Administration Building on the Phil Campbell Campus. Additional information on the Financial Aid Programs may be obtained by calling the Office of Student Financial Services at 256.331.5364, Shoals Campus, or 256.331.6332, Phil Campbell Campus.

Student Rights and Responsibilities

Students have the responsibility of knowing the following:
1. Requirements for applying for financial aid;
2. College refund and repayment policies;
3. Guidelines affecting a financial aid award;

Students have the right to discuss and appeal financial aid decisions in writing with personnel in the Office of Student Financial Services.

Eligibility

To receive Federal Title IV student financial assistance, a student must meet the following requirements:
1. Be unconditionally admitted to the College;
2. Be a high school graduate or have a GED.
3. Be a United States citizen or an eligible noncitizen;
4. Be registered with Selective Service, if required;
5. Be in need financially;
6. Be enrolled at the College as a regular student in an eligible degree or program.
7. Be making satisfactory academic progress;
8. Be a United States citizen or have a noncitizen parent.

Financial Services at 256.331.5364, Shoals Campus, or 256.331.6332, Phil Campbell Campus. Additional information on the Financial Aid Programs may be obtained by calling the Office of Student Financial Services at 256.331.5364, Shoals Campus, or 256.331.6332, Phil Campbell Campus.

Federal Financial Aid Programs

IMPORTANT NOTICE
Any information concerning the Federal Title IV Financial Aid programs presented herein is subject to all regulations published by the U.S. Department of Education and other Federal regulatory agencies. Since this information is subject to change, any information presented which is in conflict with existing regulations or is superseded by such changes in the regulations will be considered null and void.

The four Federal Student Financial Aid Programs are (a) Federal Pell Grants, (b) Federal Supplemental Educational Opportunity Grants (SEOG), (c) Federal Work-Study (FWS), and (d) Federal Direct Student Loans. Students should apply for Federal Student Aid online at www.fafsa.gov.

Federal Pell Grant

Pell Grant are awards to help undergraduates pay for their postsecondary education. The Pell Grant Program is the largest federal student aid program and does not have to be repaid. For many students, these grants provide a foundation of financial aid. The Pell Grant award is based on the student’s expected family contribution(EFC) and enrollment status. If the student is less than full time and eligible based on the EFC, the Pell grant is prorated(3/4, 1/2 or less than 1/2). If the EFC is too high, the student may not be eligible. Students may also receive aid from other federal and non-federal sources. Recipients may charge their tuition, fees and books to the Pell Grant. The College disburses all remaining balances. The Business Office disburses all NW-SCC refunds of any excess funds.

Federal (FSEOG)

FSEOG is for undergraduates with exceptional financial need (with priority given to Pell Grant recipients), and the grant does not have to be paid back. The College will distribute FSEOG money to students based on need and available funds.

Federal Work-Study

Students demonstrating a need may be eligible to work part-time. To determine a student’s need, the student must apply through FAFSA need analysis. Students receive payment monthly at the current minimum wage rate. Applications are available in the Student Financial Services Office.

Federal Direct Student Loan Program

The Federal Direct Student Loan Program makes low interest loans available to students through the Federal Government to help students pay for education after high school. Several income sources are used to determine eligibility including the family financial resources and other financial assistance the student may be receiving. Federal Aid (FAFSA) must be completed to see what the student is eligible for in direct loans. A student who qualifies may borrow up to the following:

<table>
<thead>
<tr>
<th></th>
<th>Subsidized</th>
<th>Unsubsidized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st year</td>
<td>$3,500</td>
<td>$6,000</td>
</tr>
<tr>
<td>2nd year</td>
<td>$4,500</td>
<td>$6,000</td>
</tr>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st year</td>
<td>$3,500</td>
<td>$2,000</td>
</tr>
<tr>
<td>2nd year</td>
<td>$4,500</td>
<td>$2,000</td>
</tr>
</tbody>
</table>
Federal Financial Aid Application Procedures

To be considered for Federal Pell Grant, Direct Loans, FSEOG, FWS and ASAP a student must complete the Free Application for Federal Student Aid (FAFSA). The student's and/or parents' prior prior year's income and any current assets determine the applicant's financial aid need. Student's must submit a FAFSA every year at www.fafsa.gov to be considered for Federal Aid.

Students who qualify may apply for financial aid at any time. However, processing time can be from three to four weeks; therefore, the application process should begin as early as possible. Please apply for aid and follow up with the Student Financial Services Office well before the semester begins.

Verification of Financial Aid Eligibility

The FAFSA determines the initial eligibility for the student. The Student Financial Services Office determines whether an eligible student (based on need) is also eligible to receive payment. Federal regulations require verification of adjusted gross income, tax paid, household size, untaxed income, and other items. If a student's application is selected for verification:

1. He/she will be required to submit a verification worksheet.
2. He/she could be required to submit a copy of a tax return transcript for the student, his/her parents (if he/she applies as a dependent student) and his/her spouse's transcript (if he/she is married and his/her spouse filed a separate return). Call 1.844.545.5640 or go to the IRS website at www.irs.gov to obtain tax return transcripts.
3. He/she must provide records of benefits received from the Social Security Administration, Veterans' Administration, and other agencies that might pay non-taxable benefits upon request. If he/she is considered a dependent student, they must provide the following information on their parents.

Student must check with the Student Financial Services Office to inquire about any other additional requirements. This documentation must be received before the financial services personnel can complete the processing of the application.

Satisfactory Academic Progress Requirements for Financial Aid

Federal, Title IV Student Financial Aid Regulations require that all students who receive financial assistance maintain minimum standards of satisfactory academic progress (SAP).

Minimum Standards of Satisfactory Academic Progress:

Time Frame: Each student receiving financial assistance will be expected to complete his/her course of study within a period not to exceed 1.5 times the length of his/her program of study; e.g. a two-year program of study (4 semesters, 64 hours) must be completed within 3 years (6 semesters, 96 hours) of attendance.

Qualitative (GPA) Measures: Each student will be expected to meet or exceed the following GPA values and pass two thirds of hours attempted based on the chart below when SAP is checked:
**Expenses and Financial Assistance**

<table>
<thead>
<tr>
<th>Hours Attempted</th>
<th>GPA</th>
<th>Completion Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-21</td>
<td>1.50</td>
<td>56%</td>
</tr>
<tr>
<td>22-32</td>
<td>1.75</td>
<td>62%</td>
</tr>
<tr>
<td>33 and above</td>
<td>2.00</td>
<td>67%</td>
</tr>
</tbody>
</table>

**Quantitative Measure:**

The Completion Rate is defined as the pace the student must progress through their program of study. The Completion Rate is determined by dividing the total number of attempted hours by the total hours passed. Example: If a student attempted 25 hours and passed 19, the completion rate would be 76% (19/25 = 76). Students will be expected to meet or exceed the Completion Rate values based on the chart above when SAP is checked.

**Additional Regulations:**

1. All prior coursework at NW-SCC will be included in completion rate, GPA and time frame. Satisfactory progress is not “reset” for a change of major or degree completion.

2. If a student doesn’t meet SAP requirements they are allowed one warning semester in which he/she will be eligible to receive aid. There is no warning period for Max Timeframe. After their second consecutive semester of NOT maintaining SAP their financial aid is suspended. Not attending one or more semesters will not affect or change SAP status.

3. Information as to the treatment of repeat, incompletes, withdrawals, transfer credit, bankrupted, forgiven and transitional (remedial) classes is as follows:
   - Repeat classes will be factored into the GPA, completion rate, and maximum time frame calculations. In addition, a student can only repeat a successfully passed class using federal aid once.
   - Incompletes will be factored into the completion rate and maximum time frame calculations.
   - Withdrawals will not be factored into the GPA calculation but will be included in the completion rate and maximum time frame calculations.
   - Transfer credits from an accredited college(s) will not be factored into the GPA calculation but will be included in the completion rate and maximum time frame calculations.

   - Bankrupted classes will be factored into the GPA, completion rate and maximum time frame calculation.
   - Forgiven classes will not be factored into the GPA but will be included in the completion rate and maximum time frame calculations.
   - Developmental Education Classes will be factored into the GPA, completion rate, and maximum time frame calculations.
   - Dropped courses during the add/drop period will not be factored into GPA, completion rate, or maximum timeframe calculations.

**Satisfactory Academic Progress Review Process**

Each student’s SAP will be evaluated at the end of each semester. A student whose progress has been determined to be unsatisfactory and who elects to re-enroll at his or her own expense will have his/her progress re-evaluated at the end of each semester to see if he/she has regained satisfactory academic progress by achieving the required GPA and completion rate.

**Satisfactory Academic Progress Appeal Process**

Student’s may submit a Financial Aid Appeal if he/she can provide documented proof of mitigating circumstances or request a degree audit for maximum time frame appeal.

**Mitigating Circumstances**

Mitigating Circumstances are those that are beyond the student’s control. For example: Serious illness or injury to student that required extended recovery time. Death or serious illness of an immediate family member. Significant trauma in student's life that impaired the student's emotional and/or physical health. Student must submit the appeal form and all documentation pertaining to the appeal by the published appeal deadline. Submitting a Financial Aid Appeal is NOT an automatic approval. The Appeals Committee will meet each semester to consider completed appeals. Students’ s will be notified by email of the decision. The decision of the Appeal Committee is final. If the student is granted an appeal he/she will be placed on financial aid probation. Students on financial aid probation must meet the requirements of their academic plan every semester. If the student fails to meet the terms of the academic plan their financial aid will be suspended.

**Scholarship Programs**

The following is a listing of our institutional scholarships available at the college. Students must apply each spring. Please visit our website at www.nwscoc.edu for details about each scholarship and the online application process.

- **Academic Scholarship** – online application
- **Val/Sal Scholarship** – given by High School counselor
- **Applied Technology Scholarship** – online application
- **Opportunity Scholarship** – online application
- **Performing Arts Scholarship** – online application
- **General Scholarships** – online application
- **College Bowl Scholarship** – online application

**Scholarship Policies and Procedures**

Students on two year institutional scholarships must complete 30 credit hours per year (fall, spring, summer) and maintain the appropriate CGPA as outlined below. Scholarships will be cancelled for students who fail to meet the minimum qualifications after the first year.

- **Val – Sal** 3.0 GPA
- **Academic** 3.0 GPA
- **Applied Technology** 2.5 GPA
- **GED Leadership** 2.5 GPA

**Shoals Scholar Dollars** - Students must be from Lauderdale and Colbert counties who recently graduated high school and meet the required criteria. Students must have a high school average of 75 or higher, 98% high school attendance, and no major disciplinary actions. Must be enrolled full-time and maintain a 2.5 college GPA. No probationary period is granted if guidelines are not met.

**Senior Adult Scholarship Program** - Students who meet College admission requirements and who are 60 years of age or older are eligible for the Senior Adult Scholarship program. The award is based upon space availability in each course. The scholarship covers tuition only in college-credit courses (defined as courses measured in both credit hours and scheduled weekly contact hours that are part of an organized and specified program leading to a formal award-associate degree or certificate).

**Ready to Work Program** - These scholarships are based on recommendations from the Director of the Ready to Work Program. Recipients receive up to 4 credit hours of instruction on this scholarship which is also authorized by the Alabama Department of Postsecondary Education.
GED Free Class - Based on authorization from the Alabama Department of ACCS Education, all Alabama students receiving their GED are allowed up to 4 credit hours of instruction.

Franklin County Scholarship - Scholarship funds are paid on an annual basis by August 1. The amount is determined annually by the Franklin County Scholarship Board - based on funds available and the number of applications received.

Requirements:
1. Franklin County, Alabama resident for the past two consecutive years.
2. Submit applications each year by June 30 to Franklin County Commission Office, P.O. Box 1028, Russellville, Alabama 35653.
3. Applicant must have been enrolled as an undergraduate student at a college within the state of Alabama.
4. Complete twelve (12) credit hours per semester and maintain a 2.0 GPA.
5. Provide proof of attendance and coursework including GPA for each term as soon as possible after the Spring Semester ends but no later than June 30 to the Franklin County Commission Office.

Third Party Scholarships - These are scholarships received on behalf of a student from an outside party. NW-SCC must receive payment from the third party before any funds are applied to a student’s account.

Northwest-Shoals Community College Foundation, Inc.

Northwest-Shoals Community College Foundation, Inc. exists for the sole purpose of providing support for programs and activities which enhance the quality of education and expand the educational opportunities for students enrolled at Northwest-Shoals Community College. To achieve this purpose, the Foundation seeks to heighten community awareness of the mission and accomplishments of the College and to secure contributions and bequests which will be used to support academic and technical programs as well as scholarships.

The Board of Directors of Northwest-Shoals Community College Foundation is composed of business and community leaders who are residents of the College service area which includes the following counties: Lauderdale, Lawrence, Colbert, Franklin, and Winston. These individuals have a strong interest in the College and are committed to using their talents, energy, and influence to generate community support for the College and Foundation.

The Foundation offers a variety of scholarships for students in the College’s service area. Online applications are available at the College’s website: nwscc.edu beginning January of each year. The deadline for application submissions is around the middle of March of each year. For more information on these scholarships, please contact the Foundation Office by e-mail teresah@nwscc.edu.

Foundation Scholarships:
Aaron B. Singleton Memorial Scholarship
Alan Bragwell Memorial Scholarship
Ashley Darby Memorial Scholarship
Barry "Tyler" Rhea Memorial Scholarship
Bill Lucas Memorial Scholarship
Billy Bowling Memorial Scholarship
Broughton Isom Memorial Scholarship
Bruce Crowe Memorial Scholarship
Cecil Earl Clapp, Sr. Memorial Scholarship
Cliff and Mabel Brown Memorial Scholarship
D. Mitchell Self Memorial Scholarship
Diana Ashe-Clayton Memorial Scholarship
Dual Enrollment / Dual Credit Scholarship
Edward Fennel Mauldin Memorial Endowed Scholarship
Esther McAfee Flippo Hunt Memorial Scholarship
Franklin A. Lenfestey Memorial Scholarship
General Foundation Scholarship
Homajean Grisham Memorial Scholarship
Howell Hefflin Memorial Scholarship
Humphrey Lee Phi Theta Kappa Scholarship
Integrated Corporate Solutions Scholarship
Joseph W. Wade Memorial Scholarship
Joshua “Josh” Green Memorial Scholarship
Karen Thompson Memorial Scholarship
Lockheed Martin Scholarship for Veterans
Martha Isbell Memorial Scholarship
Marvin E. Daly Memorial Scholarship
Mattie Lou Gist Memorial Scholarship
Michael Denton Memorial Scholarship
NW-SCC Faculty and Staff Scholarship
Nursing Alumni Scholarship
Orben F. Gist Memorial Scholarship
Percy Sledge Memorial Scholarship
Sam Beau Barron Memorial Book Scholarship
Shelby Grissom Memorial Scholarship
Shoals Home Builders Association Scholarship
Susan M. Holcomb Memorial Scholarship
Tuscumbia Kiwanis Club Scholarship
VFW Post 5140/Paul W. Shockley, Sr. Memorial Scholarship
Walston and Jewel Hester Memorial Scholarship
Wayne County Bank Scholarship
William F. "Bill" Gardiner Memorial Scholarship
William M. "Bill" Gough, III Memorial Scholarship
William and Mammie Simms Memorial Scholarship

The Foundation shall award scholarships based upon donated funds and/or accrued interest in scholarship account.

Other Financial Aid Programs

Workforce Investment Opportunity Act (WIOA)
The Workforce Investment Opportunity Act assists with training or retraining of citizens who qualify as being either economically disadvantaged or as a dislocated worker. For further information, contact the Sheffield CareerLink at 256.383.5610 or the Hamilton CareerLink at 205.921.5672.

Trade Adjustment Assistance (TAA)
This program is designed to retrain persons who have lost their jobs because of certain trade agreements. For further information, contact the Shoals Career Center at 256.383.5610.

Vocational Rehabilitation Program
Under this program, disabled persons or persons with vocational limitations may qualify for financial assistance. For information, contact the Muscle Shoals Rehabilitation Agency.
Prepaid Affordable College Tuition (PACT)
The Prepaid Affordable College Tuition Program is a state program through which accounts are purchased to pay undergraduate tuition and qualified fees at public institutions in Alabama. Our resource for PACT information is treasury. alabama.gov/pact.

Veterans Programs

CHAPTER 33 - POST 9/11 GI BILL
Individuals who have served at least 90 aggregate days on active duty after September 11, 2001 may be eligible for this program. Individuals who were in a selected reserve component and served on active duty on or after September 11, 2001 for at least 90 consecutive days may be eligible for this program.

Application package includes:
- Form 22-1990 – Application of Education Benefits (Can be found online https://www.ebenefits.va.gov/ebenefits/vonapp)
- Certificate of Eligibility

CHAPTER 31 - VOCATIONAL REHABILITATION
This benefit is designed to assist veterans with a service-related disability in obtaining and maintaining employment. A service-related disability rating of 20% or more is required as part of the eligibility requirements.
- Veterans should apply for vocational rehabilitation through the County Veterans Service Office and must follow guidelines from the Vocational Rehabilitation and Counseling Division of the DVA regarding application and admission requirements.

CHAPTER 1606 - SELECTED RESERVE EDUCATIONAL ASSISTANCE PROGRAM
Individuals who have agreed to serve six years, on or after July 1, 1985, or extended an enlistment for a period of at least six years in the selected reserve may be eligible for this program.

Application package includes:
- Form 22-1990 – Application of Education Benefits (Can be found online https://www.ebenefits.va.gov/ebenefits/vonapp)
- Certificate of Eligibility

CHAPTER 35 - SURVIVORS AND DEPENDENT’S EDUCATIONAL ASSISTANCE
Surviving spouses and children of veterans who meet the following criteria may be eligible for this program:
- Suffered a service-related death,
- Died as a result of a service-related disability or
- Receive a 100% permanent and total service-related disability.

Application package includes:
- Form 22-5490 – Application for Survivor’s and Dependent’s Educational Assistance (Can be found online https://www.ebenefits.va.gov/ebenefits/vonapp)
- Certificate of Eligibility

ALABAMA G.I. DEPENDENT’S SCHOLARSHIP PROGRAM
Children and spouses of veterans who meet the following criteria may be eligible for this program:
- Must have honorably served at least 90 or more days of continuous active federal military service or be honorably discharged by reason of service-connected disability after serving less than 90 days of continuous active federal military service during wartime
- Must be rated 20% or more disabled due to service-connected disabilities or have held the qualifying rating at the time of death, a former Prisoner of War (POW), declared Missing in Action (MIA), died as a result of a service-connected disability, or died while on active military service in the line of duty
- Must be a permanent civilian resident of the State of Alabama for at least one year immediately prior to (a) the initial entry into active military service, or (b) any subsequent period of military service in which a break (one year or more) in service occurred and the Alabama civilian residency was established

To Apply:
Contact your county’s Veterans Affairs Office, or call 334-242-5077.
- If the student is deemed eligible, the Alabama Department of Veterans Affairs will send a certificate of eligibility to the student and to the approved school

ALABAMA NATIONAL GUARD EDUCATIONAL ASSISTANCE PROGRAM (ANGEAP)
Students in the Alabama National Guard may be eligible for up to $5,232.00 per semester minus other aid. All Alabama National Guard Members are encouraged to apply by filling out the ANGEAP request each semester and turning it in to the VA School Certifying Official in the Office of Student Financial Services. The stipend is not set for any period of time during the semester, and the Office of Student Financial Services cannot provide information regarding the time of payment.
Once the ANGEAP request is turned in, the SCO will forward it to the Alabama National Guard office. When all required channels have approved the request, the ANGEAP is a Limited Funded Program, and submission of this application does not ensure that funds will be available when application arrives at ACHE.

TUITION ASSISTANCE (TA)
Tuition assistance (TA) is a Department of Defense (DOD) program. GoArmyEd is the virtual gateway for all eligible Active Duty, National Guard, and Army Reserve soldiers to request tuition assistance (TA) online, anytime, anywhere, for classroom and distance learning. It allows soldiers to manage their education records, including college classes, testing, on-duty classes, and Army education counselor support. Soldiers may request TA through www.GoArmyEd.com prior to the course start date. GoArmyEd will notify
the soldier whether the TA is approved of not. If the TA request is not approved, GoArmyEd will advise the soldier of the reason and next steps. All drops/withdrawals must be handled through GoArmyEd. Soldiers who do not successfully complete a class due to military reasons must request a Withdrawal for Military Reasons through GoArmyEd and complete all required steps to ensure that they will not be charged. Students have 14 days from the start of the semester to input information into the GoArmyEd system for TA approval.

VA POLICY ON TUITION AND FEE RATE

The following individuals shall be charged a rate of tuition not to exceed the in-state rate for tuition and fees purposes:

• A Veteran using educational assistance under either chapter 30 or chapter 33, of title 38, United States Code, who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of discharge or release from a period of active duty service of 90 days or more.

• Anyone using transferred chapter 33 benefits (38 U.S.C. 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of the transferor’s discharge or release from a period of active duty service of 90 days or more.

• Anyone described above while her or she remains continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the expiration of the three-year period following discharge or release as described above and must be using educational benefits under either chapter 30 or chapter 33, of title 38, United States Code.

• Anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. 3311 (b)(9)) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence).

• Anyone using transferred chapter 33 benefits (38 U.S.C. 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and the transferor is a member of the uniformed service who is serving on active duty.

• The policy shall be read to be amended as necessary to be compliant with the requirements of 38 U.S.C. 3679 as amended.

VA COMPLAINT POLICY

• “Any VA Complaint against the school should be routed through the VA GI Bill Feedback System by going to the following link: http://www.benefits.va.gov/GIBILL/Feedback.asp. The VA will then follow up through the appropriate channels to investigate the complaint and resolve it satisfactorily.”

CERTIFYING ENROLLMENT

Certification is the process by which the College verifies to the VA a student’s dates of attendance, degree program and number of credit hours taken. The VA will not pay any student without receiving this certification. VA students must bring their schedule each semester to Student Financial Services and complete the Enrollment Certification Request before being certified for that semester to ensure all classes meet requirements. VA students must also notify the School Certifying Official of any changes in their schedule (adding/dropping courses).

The VA Certifying Official will process all certifications within two business days of the paperwork being turned in. The Certifying Official will follow up weekly on the student’s account, and contact students when changes are made.

NOTE: All courses taken must be in your selected program. VA students will not be certified for, nor paid by the VA, for courses that are not in their program, audited classes, withdrawals or non-required courses.

CHANGES IN SCHEDULE

All add/drop changes after initial certification should be reported by the student to the Northwest-Shoals Community College Student Financial Services and are forwarded to the VA Regional Office. Withdrawing or adding classes may change the eligible monthly rate received by the student, and if not reported in a timely manner could lead to an underpayment or overpayment of benefits. Students are encouraged to report these changes in a timely manner to avoid these situations. The VA Certifying Official should report all changes to the VA within 30 days of the date of the change.

CHANGING MAJOR

Students must report a change of major to the VA Certifying Official in the College’s Student Financial Services at the beginning of the semester in which the change occurs. Students will be required to complete a change of program request, VA Form 22-1995 (chapters 33, 30, 1606 and 1607) or 22-5495 (chapter 35). For chapter 31 students, see your case manager.

PAYMENT OF TUITION AND FEES

All VA students are responsible for making payment for tuition and fees by the payment due date to avoid being dropped from courses. Chapter 33, Chapter 31 and Alabama G.I. students will only have to pay the balance of what their benefit level does not cover at the time tuition and fee payment is due.
Notes...
Academic Procedures and Requirements
Placement Testing
All new enrollees who have not successfully completed college-level English and mathematics courses or taken the ACT exam within the last three years must take a placement exam before registering for classes. This test indicates the beginning levels of math, English, and reading courses. This test allows calculator usage on the algebra portions. The following types of calculators are not permitted: pocket organizers, handheld or laptop computers, electronic writing pads or pen-input devices, models with a QWERTY (typewriter) keypad, and models with built-in capability to simplify algebraic expressions, multiply polynomials, or factor polynomials. Specifically prohibited models: CFX-9970G, Casio Algebra fx 2.0, TI-89, and TI-92. Any four function, scientific, or graphing calculator, except as specified, may be used. *There is a retesting fee.

Developmental Education
Students who score below the standard placement score established by the College will be required to enroll in related developmental education courses. Developmental education instruction is designed to remediate prior deficiencies in knowledge and skills judged necessary for a student to progress satisfactorily through a college level program or course of instruction. Credit earned for developmental education courses shall not satisfy requirements for graduation in degree, certificate or diploma programs. A student may enroll in college level courses while enrolled in developmental education courses as long as the discipline is different than the discipline in which the student scores below the standard placement score. Any student enrolled in two or more developmental education courses shall not enroll in more than a total of 12 credit hours that semester. Any student who scores below the standard placement score and is placed into developmental education course instruction in a given discipline must remain in such instruction in that discipline until academic deficiencies are remediated. The College shall maintain data files on each student enrolled in developmental education courses.

Academic Advising
Academic advising is an extension of the educational process and is considered an essential part of the student’s educational experience. Its primary purpose is to assist students in the development of meaningful educational plans which are compatible with their life goals. While the academic advisor assists the student by helping identify and assess alternatives and consequences of decisions, the student has the ultimate responsibility for making these decisions.

The College maintains an advising process for the benefit of students. Every student enrolled will be assigned a faculty advisor. Each student is encouraged to discuss plans, problems, and needs with the faculty advisor. If students do not know who their advisor is, they should call the Advising Center at 256.331.5221.

Advisors aid students in verifying that all educational requirements of both the College and their specific programs are met. Advisors are available during advising days and regular office hours throughout the semester. Students are encouraged to make an appointment with their advisor prior to registering for classes each term. Distance education students may seek advising assistance by contacting their assigned advisor or Advising Center staff by phone or email.

Students experiencing academic difficulty or considering withdrawal from the College for any reason are encouraged to contact their advisor, counselor, advising coordinator, or the assistant dean.

Registration
Registration dates are listed on the College Academic Calendar as well as in each semester’s class schedule. Currently enrolled students may register through the myNWSCC portal. The student is responsible for completing the registration process correctly and for attending classes as scheduled.

All course changes must be completed by the end of the day given as the deadline date for add/drop in the College Academic Calendar. Students may register for credit courses after the last day of add/drop only with special permission from the Vice President’s office or appropriate designee.

New students are invited to small group registration dates as determined by NW-SCC each term. All students will be assigned an advisor, which will assist with registration.

Credit Hour Definition and Policy
Northwest-Shoals Community College (NW-SCC) defines a credit hour in accordance with federal regulations 34 CFR 600.2 and the converting Contact Hours to Credit Hour Equivalencies.

Alabama Community College System requires institutions operate on a semester system. Semester hours of credit are then based upon the average number of hours of instruction weekly during a 15-week period, with an hour of instruction defined as not less than 50 minutes of instructor/student contact. A variety of class meeting schedules that fall within this structure may be present within the institutions.

Maximum and Minimum Credit Hour Load
The Northwest-Shoals Community College Academic year is 32 credit hours and the normal credit hour load is 16 to 18 credit hours. Total credit hours above 19 credit hours constitutes a student overload. A student desiring to take more than 19 credit hours must obtain special permission from the Vice President’s office. A maximum load of 24 credit hours may be taken by a student in extraordinary circumstances and only with special permission. No student will be approved for more than 24 credit hours in any one semester for any reason. Students must have a 2.00 GPA or higher to request a course overload. The minimum load for a regular full-time student is 12 hours. A typical student will earn 32 semester hours in two semesters or 16 hours each semester (fall and spring).
**Auditing a Course**

1. A student who desires to audit a course must be admitted to the College and meet the pre-requisites for that course or have the permission of the instructor;

2. **The student’s intent to audit a course must be made at the time of registration.** The Registrar will designate on the class roll that the student is auditing the course. “AU” is assigned upon completion of the course and will appear on the official transcript;

3. The student who audits a course will complete the same course work as students who register for credit with the exception of tests and examinations;

4. Once the grade of “AU” has been established, it will not be changed.

5. The cost of auditing a course is the same as that for taking a course for credit.

**Cancellation of Classes**

Every effort is made to insure that courses and programs described in the College Catalog are offered to students in an appropriate and reasonable sequence. Students should be aware, however, that admission to the College or registration for a given semester does not guarantee the availability of a specific course. Course availability is determined by student demand and instructor availability. Northwest-Shoals Community College reserves the right to cancel or modify any class scheduled.

**Schedule Changes**

**Adding or Dropping a Course (Add/Drop)**

Students may make schedule changes during the designated Add/Drop period by accessing the myNWSCC portal.

**Students may not add classes after the end of the Add/Drop period without approval of the Vice President’s office and the instructor for each course to be added.**

Any change to the student’s schedule after Add/Drop must be processed by admissions staff. Students adding a course after the Add/Drop period must pay tuition and fees for the course (or courses) added.

**Withdrawal from a Course**

A student who is unable to complete a course is expected to withdraw from that course by proper withdrawal procedures with the instructor, a Student Success Coach, Financial Aid Office and the Admissions Office.

A grade of “W” will be assigned for the course, a student withdraws prior to the last day to withdraw date published in each semester schedule. A grade of “F” will be assigned if a student withdraws after the published date.

Students receiving financial aid should consider the impact of their withdrawal on their financial aid status before withdrawal from College.

**Administrative Withdrawal From a Course or From College**

A student may be withdrawn administratively from any course for:
1. Failure to complete College registration properly.
2. Failure to fulfill a financial obligation to the College.
3. Failure to fulfill conditions of registration in those cases in which a student was admitted on conditions.
4. Failure to fulfill other conditions of admission and/or registration.
5. Failure to meet standards of progress requirements.
6. Failure to attend class during the first week of the semester, if the student is receiving a Federal Pell Grant or Federal Stafford Loan.

**Grading System**

Each course for which a student has registered must be assigned one of the letter grades as follows. The numerical scale applies to all courses except NUR, LPN, EMS, DMS, RAD, and MAT.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
<th>Numerical Scale</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>(90-100)</td>
<td>4 points</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>(80-89)</td>
<td>3 points</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td>(70-79)</td>
<td>2 points</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td>(60-69)</td>
<td>1 point</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>(below 60)</td>
<td>0 points</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td></td>
<td>0 points</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td></td>
<td>0 points</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td></td>
<td>0 points</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td></td>
<td>0 points</td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
<td></td>
<td>0 points</td>
</tr>
</tbody>
</table>

*AU* Audit. Course taken for non-credit. Credit hours will not be averaged into the GPA. Must be declared by the end of the registration period and may not be changed thereafter.
W  Official withdrawal from a course within a   0 points
time period designated by the College,
but not to exceed 60 percent of the semester
time or withdrawal from the College within a
time period designated by the College.
Credit hours will not be averaged into the
GPA.

Satisfactory grades are “A,” “B,” and “C”. While a grade of
“D” is considered passing at the College, senior colleges and
universities may not grant credit for a course in which the
student has made a grade of “D”.

A final grade of “I” may be assigned if a student fails to complete
all course requirements because of illness or other extenuating
circumstances that occur near the close of a term which
prevent a student whose performance has otherwise been
satisfactory from completing the requirements of a course.
Unless extenuating circumstances are present, a student’s
failure to submit required work when it is due does not provide
a basis for the grade of “I”. In such cases, a grade of “F” is
usually appropriate.

Final Exams
Final exams are administered in all courses. They are to be
given during the dates scheduled or the last scheduled class
meeting for the course. Requests for permission to take
or to give final exams early must be approved by the Vice
President’s Office in writing.

In cases where early exams are permitted, it is expected that all
course requirements will be met and/or appropriate additional
assignments will be completed to account for the time missed.

If a student fails to report for a final exam without known cause,
the grade to be reported should be determined as follows: If
the student has done satisfactory work to that point, a grade of
“I” may be reported on the assumption that the student is ill or
will otherwise present sufficient reason for an official excuse.
If the student’s work has been unsatisfactory to that point, the
grade of “F” should be reported. A grade of “I” automatically
becomes a grade of “F” unless it is removed during the next
semester.

Grade Appeal
It is preferred that all grade appeals be handled in an informal
manner between the student and the instructor. If the
discussion between the two does not result in a resolution, a
formal grade appeal may be initiated.

The grade appeal procedure must be initiated by the end of
the drop/add period of the term following the term in which the
grade was awarded. There can be no formal grade appeal for
any grade other than a final grade; however, lab grades, project
grades, tests, and other assignments which may adversely
affect the final grade may be appealed by the student.

Since the first level of appeal is between the student and the
instructor of the course, it is necessary that the student confer
with the instructor to gain understanding of the procedure used
in awarding the grade. Preferably any disagreement will be
resolved at this level. If a resolution is impossible at this level,
the student may make a formal grade appeal to the Division
Chairperson. The student should obtain a form from the Vice
President’s Office to formally request a grade appeal.

Upon completion of the Grade Appeal form, the student
should return the form to the Vice President’s Office. The Vice
President’s Office will then inform the Division Chairperson
of the appeal and will request that the Chairperson meet with the
student to discuss the problem. If the matter can be resolved
at this level, it should be done in writing on the Grade Appeal
form. If no resolution is reached, the student will meet with the
Division Chairperson to hear this appeal only. (If the Division
Chairperson is the instructor of the course, the Vice President
will appoint another Division Chairperson to handle the Grade
Appeal Committee.)

The committee will be headed by the Division Chairperson or
his/her designee and will consist, if possible, of at least one
faculty member from the discipline of the course in dispute.
All committees should consist of no fewer than three faculty
members. The committee will be objective and even-handed
as it reviews the grade appeal.

The committee may request any documentation necessary
from the student and/or the instructor. The committee will
interview the student and may wish to interview the instructor.
Based on the findings from the information and the interview,
the committee will make a formal recommendation to the Vice
President of Instruction.

The Vice President’s Office may accept the recommendation,
request further information, or reject the committee’s
recommendation. In all cases, the Vice President’s Office will
inform the student in writing of the findings.

Class Attendance Policy
Because class attendance is considered to be essential to the
accomplishment of course objectives, excessive absences,
more than 20% of the class meetings for a course, are
discouraged. These absences also include any absences
accrued during late registration. Failure to adhere to the
20% policy may result in a failing grade based on academic
performance. Any variation of this policy must be approved
through the Vice President’s Office. A student who is absent
due to required participation in a school activity must be
allowed to make up work according to guidelines issued by
individual instructors.

Attendance for distance education courses may be determined
by academically-related course work completed in the learning
management system, by initiating contact with a faculty
member to ask a course-related question, or if in a blended
course format, by participation in a class or lab activity.
This may include discussion postings, quizzes, or other
assignments as noted by the course instructor. Instructors
have access to detailed course logs to track student activity in
distance courses.

Excused Absences
The only excused absences that the College recognizes
are absences from classes due to students representing
the College in some official capacity such as a scholarly
competition sponsored by the College or attending documented
required military duties. Absences are excused only with
written permission of the Vice President’s Office. Students
are responsible for making prior arrangements for class
assignments.
**The Semester System**

The academic year is divided into two semesters of approximately sixteen weeks and a summer term of eleven weeks. Credit is awarded based on standard criteria of hours students receive instruction in a semester.

**Quality Points and Grade Point Average - (GPA)**

- A - 4 quality points per hour
- B - 3 quality points per hour
- C - 2 quality points per hour
- D - 1 quality point per hour
- F - 0 quality points per hour

The student’s scholastic standing or GPA is obtained by dividing the total number of quality points earned by the total number of semester hours attempted for which the grades of A, B, C, D, or F are assigned.

**Standards of Academic Progress: General**

Required GPA levels for students according to number of hours attempted at the College.

A student will attain clear academic status provided he or she:

1. Attempts 12-21 credit hours and maintains a 1.5 GPA or 
2. Attempts 22-32 credit hours and maintains a 1.75 GPA or
3. Attempts 33 or more credit hours and maintains a 2.0 GPA

**DEFINITION OF TERMS:**

**Grade Point Average (GPA)** - Using a 4-point scale, the grade point average based on all hours attempted during any one semester at the College.

**Cumulative Grade Point Average (GPA)** - Using a 4-point scale, the grade point average based on all hours attempted at the College.

**Clear Academic Status** - The status of a student whose GPA is at or above the level required by this policy for the number of credit hours attempted at the College.

**Academic Probation** - The status of a student whose Cumulative GPA falls below the level required for the total number of credit hours attempted at the College or the status of a student who was on Academic Probation the previous semester and whose Cumulative GPA for that semester remained below the level required for the total number of credit hours attempted at the College but whose GPA for that semester was at least 2.0.

**One Semester Academic Suspension** - The status of a student who was on Academic Probation the previous semester but who has never been suspended or who, since suspension, had achieved Clear Academic Status and whose Cumulative GPA that semester was below the level required for the total number of credit hours attempted at the College and whose GPA for that semester was below 2.0.

**One Year Academic Suspension** - The status of a student who was on Academic Probation the previous semester and who had previously been suspended without since having achieved Clear Academic Status and whose Cumulative GPA that semester remained below the level required for the total number of credit hours attempted at the College and whose GPA for that semester was below 2.0.

**Appeal of Suspension** - The process by which the College shall allow a student suspended for one semester or one year (whether “native” student or a transfer student) to request readmission without having to serve the suspension.

**Intervention for Student Success**

When a student is placed on academic probation, one-semester academic suspension or on one calendar year academic suspension, college officials may provide intervention for the student by taking steps including, but not limited to, imposing maximum course loads, requiring a study skills course, and/ or prescribing other specific courses.

**Application of Standards of Progress:**

1. When the Cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the College, the student’s status is Clear.

2. When a student’s Cumulative GPA is below the GPA required for the number of credit hours attempted at the College, the student is placed on Academic Probation.

3. When the Cumulative GPA of a student who is on Academic Probation remains below the GPA required for the total number of credit hours attempted at the College but the semester GPA is 2.0 or above, the student remains on Academic Probation.

4. When the Cumulative GPA of a student who is on Academic Probation remains below the GPA required for the total number of credit hours attempted at the College and the semester GPA is below 2.0; the student is suspended for one semester. The transcript will read SUSPENDED-ONE SEMESTER.

5. The student who is suspended for one semester may appeal. If, after appeal, the student is readmitted without serving the one semester suspension, the transcript will read SUSPENDED-ONE SEMESTER/READMITTED UPON APPEAL. The student who is readmitted upon appeal re-enters on Academic Probation.

6. A student who is on Academic Probation after being suspended for one semester (whether the student has served the suspension or has been readmitted upon appeal) without having since achieved Clear academic status and whose Cumulative GPA falls below the level required for the total number of hours attempted at the College but whose semester GPA is 2.0 or above will remain on Academic Probation until the student achieves the required GPA for the total number of hours attempted.

7. A student returning from a one semester or one-year suspension and while on academic probation fails to obtain the required GPA for the number of hours attempted and fails to maintain a semester GPA of 2.0 will be placed on a one year suspension.

8. A student may appeal a one-semester or a one-year suspension. The permanent student record will reflect the student’s status (except when the status is clear). When appropriate, the record will reflect ACADEMIC PROBATION, ACADEMIC SUSPENSION-ONE TERM, ACADEMIC SUSPENSION-ONE YEAR, ONE TERM SUSPENSION-READMITTED ON APPEAL, or ONE-YEAR SUSPENSION-READMITTED ON APPEAL.
Process for Appeal for Readmission

If a student declares no contest of the facts leading to suspension but simply wishes to request consideration for readmission, the student may submit a request in writing for an “appeal for readmission” to the Assistant Dean no later than the close of open registration (see College Catalog or Semester Course Schedules for dates). During the meeting of the Admissions Committee, which shall not be considered a “due process” hearing but rather a petition for readmission, the student shall be given an opportunity to present a rationale and/or statement of mitigating circumstances in support of immediate readmission. The decision of the Admissions Committee, together with the materials presented by the student, shall be placed in the College’s official records. Additionally, a copy of the written decision shall be provided to the student. Equity, reasonableness, and consistency should be the standards by which such decisions are measured. If the student is readmitted without serving the one-semester suspension or the one-calendar-year suspension, the transcript will read SUSPENDED-ONE SEMESTER or ONE YEAR/READMITTED UPON APPEAL.

Standards of Academic Progress:

Transfer Students

1. A transfer student who is admitted on Clear academic status is subject to the same standards of academic progress as a “native” student. Grades accrued at other regionally accredited postsecondary institutions are not included in GPA calculation.

2. A transfer student who is admitted on Academic Probation retains that status until the student has attempted at least 12 credit hours at the College. If at the conclusion of the term in which the student has attempted a total of 12 or more credit hours at the College the Cumulative GPA is below 2.0, the student is suspended for one term. The transcript will read SUSPENDED—ONE SEMESTER.

3. If, at the conclusion of the semester in which the transfer student admitted on Academic Probation has attempted a total of 12 or more credit hours at the College the Cumulative GPA is 2.0 or above, the student’s status is Clear.

Repetition of Courses and Course Forgiveness

Course forgiveness is implemented when a student repeats a course and the last grade awarded (excluding grades of W and WP) replace the previous grade in the computation of the cumulative grade point average. The grade point average during the term in which the course was first attempted and will not be affected. The official transcript will list the course and grade each time it is attempted.

When a student completes a course more than once, all grades for the course (excluding the first grade) will be used in computing the cumulative grade point average. Official transcripts will list each course in which a student was enrolled.

A student may repeat a course more than once, but that course may be counted only once toward fulfillment of credit hours for graduation.

NOTE: Students should check financial aid regulations regarding repetition of courses. The Course Forgiveness Policy/Repeat Policy is automatically applied to student records at the end of each semester during grade processing. Implementation of the Course Forgiveness Policy/Repeat Policy at the College does not guarantee that other colleges will recognize such action. This determination is made by the respective transfer college.

Academic Bankruptcy Policy

Academic bankruptcy is the removal of one to three semesters of grades from the calculation of a student’s cumulative grade point average (GPA). Students should consult the Financial Aid Office for any affects the academic bankruptcy policy may have on their financial aid status. The following apply to any request for academic bankruptcy:

1. Academic bankruptcy is initiated by a written request from the student to the registrar/records official.

2. Academic bankruptcy may only be declared once and may be applied to no more than three (3) semesters, which do not have to be consecutive.

3. The bankrupted courses and grades remain on the transcript but are not calculated in the student’s cumulative GPA.

4. None of the coursework taken during a semester for which academic bankruptcy is declared, including hours completed satisfactorily, will be used to fulfill degree requirements.

5. Developmental courses successfully completed during a period of academic bankruptcy can be used to fulfill prerequisites.

6. To be eligible for academic bankruptcy, the student must have completed 12 semester credit hours of coursework at the college since the most recent semester for which the academic bankruptcy is requested. A grade of ‘C’, ‘S’, or higher is required in each course in 12 semester credit hours in the post-bankruptcy period.

7. When a student receives a declaration of academic bankruptcy, a permanent notation of “Academic Bankruptcy” will be reflected on the transcript for each semester affected.

8. Approval of the academic bankruptcy status at Northwest-Shoals Community College does not guarantee other institutions will honor that status. This determination will be made by the respective transfer institution(s).

Student Records Policy

As provided by Public Law 93-380, Protection of Rights of Privacy of Parents and Students, Northwest-Shoals Community College maintains information about students which facilitates the educational development of the student and the effective administration of the College in order to guarantee the rights of privacy and access as provided by the Family Educational Rights and Privacy Act of 1974 (FERPA). The College has formulated the following policies and procedures:

A. General Policy

It is the policy of Northwest-Shoals Community College that all student records are maintained for five years after the student graduates or leaves the institution. Records are then stored in a fireproof alphabetical filing system in the records room at each campus and only the official permanent record (official application for admission, official transcript containing grades and credit and other official transcripts/GED) is maintained. Other information contained in the student record is destroyed in keeping with the State Record Manual published by the Alabama Department of Archives and History, Montgomery, Alabama. No information from records, files, or other data directly related to a student other than public information defined below shall be disclosed to individuals or agencies.
outside the College without the written consent of the student except pursuant to a lawful subpoena or court order or except in the case of educational or governmental officials as provided by law. Information contained in such records may be shared within the College.

Students shall have access to all such information with the exceptions set out below in accordance with the procedure outlined within this policy statement.

B. Definition of Student

For the purpose of this policy, a “student” is defined as “any individual currently or previously enrolled in any course(s) offered by the College.”

C. Definition of Educational Records

Student educational records are defined as those records, files, documents, and other material which contain information directly related to students. Records of instructional, supervisory, and administrative personnel which are the sole possession of the maker and accessible only to the maker or a substitute are specifically excluded from this definition of educational records.

Records which are made or maintained by institutional counselors or other professionals or paraprofessionals, and which are maintained in connection with personal treatment or personal counseling and are not available to anyone not involved officially within the College are also excluded from a student’s educational records. Such records, however, are available to a physician or appropriate professional of the student’s choice, if requested.

D. Public Information

The following is a list of public information which may be made available by the College without prior consent of the student and is considered part of the public record of the student’s attendance:

1. Student’s name
2. Student’s address (local and permanent)
3. Student’s telephone number
4. Date and place of birth of student
5. Major field of study
6. Student’s participation in officially recognized activities, clubs, organizations, and weight and height of members of athletic institution teams
7. Dates of attendance of student
8. Degrees and awards received by student
9. The institution most recently previously attended by the student

If any student has an objection to any of the aforementioned information being released during any given term or academic year, the student should notify, in person or in writing, the Assistant Dean.

E. Location of Individuals Responsible for Student Records

The College has designated the following officials as being responsible for students’ records within their respective areas:

Assistant Dean - The Assistant Dean will see that all students upon acceptance to the institution will have an individual student record file containing all admissions criteria needed for acceptance to the institution. The Assistant Dean is charged with the responsibility of continuously maintaining all students’ files in a safe and orderly manner, updating all records needed on the individual student, and updating and maintaining an adequate backup system for all student records.

Chief Fiscal Officer - The Chief Fiscal Officer will have the responsibility of seeing that all provisions as set forth in this policy are applied to the release of financial information concerning individual students.

F. Disclosure of Student Records to the Student

The student is accorded the right to inspect in the presence of the appropriate official as stated in section “E” of this policy statement records, files, and data primarily and directly related to the student. In order to inspect one’s file, the student should go to the office of the appropriate official, present a valid photo identification, and initiate a written request. If the named student cannot personally appear, the student must submit a notarized request to the appropriate official. The request for inspection shall be granted by the College within forty-five (45) days of the time of the receipt. If in the opinion of the appropriate official inspection can reasonably be accomplished only by providing copies of documents, such copies shall be made and provided to the student. The right of inspection does not include financial statements of parents, confidential recommendations placed in the file prior to January 1, 1975, other confidential recommendations, nor access to items waived by the student in accordance with paragraph H.

G. Challenging the Contents of the Record

The College will respond to any reasonable request for an explanation or interpretation of any item in a student’s file. Requests for such explanation or interpretation should be addressed in writing to the appropriate official.

If after inspecting a record a student wishes to challenge any part of the file’s content, a written request for a hearing should be addressed to the President, who will set a date and time for the hearing within forty-five (45) days of receiving the written request. The request for a hearing should identify the item or items in the file to be challenged and state the grounds for challenge, i.e., inaccuracy, misleading nature, inappropriateness. The President with the appropriate records official as stated in section E shall examine the contested item(s) in the file and shall examine any documents or hear any testimony the student wishes to present. The President and the records official may decide that the items should be retained or that they should be deleted or altered. There may be a decision that the material is accurate and appropriate but that the student should be allowed to place a written explanation on the record. The President shall issue a written decision within ten (10) days of the conclusion of the hearing.
H. Waiver of Access
The College may request that a student waive his/her right to inspect confidential recommendations regarding that student’s application for admission, application for employment, the receipt of an honor, or other recognition. If a student receives a request for waiver, the student may sign and return the waiver, may request a list of names of persons who will be asked for recommendations before signing, or may refuse to waive the right to access.

Such a waiver shall not be a condition for admission to the institution, financial aid assistance, or any other benefits received by students at the College.

I. Providing Records to Third Parties
The general policy of the College is to refuse access to a student's records to third parties without the written consent of the individual student. Should a student wish to have such records released, a written request must be directed to the proper official specifying the records to be released, the person to whom records are to be released, and a request for copies to the student if desired. The College will then transfer or grant access to the information. The established service fee for producing photocopies of records will be assessed against the person whose record is involved.

Transcripts are not provided for noncredit courses. A student's records may only be available to the following persons under conditions noted without written consent of the student:

1. School officials including administrators, instructors, department heads, counselors, and staff designated by such persons within the College who have a legitimate educational interest.

2. Official representatives of federal departments or agencies, or state education authorities for purpose of audits, evaluative studies, etc. Data collected will be protected to prevent personal identification except when specifically authorized by federal law. The data or copies that may be on file at the College will be destroyed when no longer needed.

3. Financial aid officers when such information is relevant to financial aid needs analysis or other aspects of determining and/or renewing financial assistance to the individual student.

4. Release of educational records of deceased students may only be released to the student's parents or the executor/executrix of the deceased student’s estate. A record of requests for access, the legitimate interest involved, and action taken will be placed in the student's file for all requests of the file except those from school officials as noted in paragraph one above. Inspection of individual student records other than by the personnel noted in paragraph one above will be supervised by the appropriate official or designee. The student's record shall not be taken from the designated official's office area.

5. Officials of other educational or governmental agencies based on the case of need.

J. Student Issued Records-Transcripts
The transcript policy of Northwest-Shoals Community College includes the following:

- In compliance with the Family Educational Rights and Privacy Act, the Admissions/Records Office must have written/electronic student consent to issue official Northwest-Shoals Community College transcripts to institutions, companies, agencies, etc. Records officials will not copy or otherwise reproduce copies of official student transcripts and other information obtained from transfer students as official transcript requirements.

- Official transcripts may be issued from Northwest-Shoals Community College in electronic form through Parchment (charge of $2.50), by regular mail or by student pick-up in the Admissions Office.

- Transcript request forms can be accessed within our website. From the menu, select Current Students, NW-SCC Transcript Release.

- Official transcript requests are processed as they are received. Processing times are longer at the end of each academic semester. To ensure timely delivery, requests should be made at least two working days before the transcripts are needed.

- Transcripts will not be issued for students who have outstanding admission or financial obligations to the College or any disciplinary action.

- Methods for submitting requests for official transcripts:

  **Online**
  MyNW-SCC student portal (www.nwsc.edu)

  **Mail**
  Northwest-Shoals Community College
  Admissions Office
  P.O. Box 2545
  Muscle Shoals, AL 35662

  Northwest-Shoals Community College
  Admissions Office
  2080 College Road
  Phil Campbell, AL 35581

  **Email**
  transcripts@nwscc.edu

  **Fax**
  256.331.5366 (Muscle Shoals Campus)
  256.331.6292 (Phil Campbell Campus)

K. Changes in the Policy
This policy statement is subject to change by additional federal regulations or court decisions that may modify and/or negate any portion of the regulations in Public Law 93-380. This statement of policy will be published in the future in appropriate college publications. To provide additional notice of the policy, copies will be posted on bulletin boards on all campuses of the College.
Credit from Non-Traditional Sources

The College provides an opportunity for students to earn a reasonable amount of credit toward the associate degree through methods other than formal classroom instruction. While non-traditional credit applies toward degrees granted by the College, it should not be assumed that such credit will automatically be accepted by other institutions. Students are advised to consult a counselor to obtain information regarding policies at other institutions. A maximum of 25 percent of credit toward any degree may be earned from non-traditional sources.

The types of non-traditional credit and procedures are listed below:

A. Course Credit by Departmental Challenge Examination

Students may be awarded credit for documented competencies and previous formal training by demonstrating their competencies on departmental challenge exams. These departmental exams are generally used as credit for experience or as credit earned in programs at area vocational schools. These departmental exams are not available for core courses in Associate in Arts or Associate in Science degrees. The guidelines and procedures for obtaining credit by departmental examination are:

1. The maximum number of semester hours a student can challenge is 9.
2. A student may not challenge a lower level course in a sequence in which he/she has passed a higher level course in the sequence.
3. A student cannot challenge a course he/she has already completed.
4. Prerequisites for a course must be completed before the course may be challenged.
5. A course may be challenged only once.
6. The student must register and pay for the course he/she is planning to challenge.
7. The student must make arrangements within the first five (5) HOURS of class meeting time (i.e. within first week for a M-F class; within the first two (2) class meetings for M-W or T-TH classes) with the division chairperson to challenge a course.
8. The student must attend class until the results of the challenge examination are determined.
9. The challenge examination results should be made known to the student within three (3) school days of the administration of the examination (to allow for schedule alteration if desired and possible).
10. A student cannot withdraw from the class after taking the challenge exam.

11. The challenge examination grade will serve as the course grade. The student may remain in the challenged course and complete the course for a second course grade. If this occurs, the instructor will complete a change of grade form reflecting the new grade. This will replace the earlier grade on the student’s transcript.

12. Challenge examinations will be constructed by full-time faculty teaching within the challenged area; securely maintained in the division office; administered by the division office; and graded on a rotating basis by full-time faculty teaching in the area challenged.

For more information, contact the appropriate divisional chairperson.

B. Specialized Military Training

The College adheres to policies prescribed by the “Guide to the Evaluation of Educational Experiences in the Armed Services” in granting credit for military course work. The student should consult the Director of Admissions for information regarding the type and amount of credit which can be granted. United States Armed Forces Institute (USAFI/DANTES) Credit earned under the auspices of USAFI/DANTES may be granted by the College. The policy which applies to the CLEP program also applies to USAFI/DANTES credit. Consult the Director of Admissions for a full evaluation of USAFI/DANTES credit.

C. Advanced Placement

Students who have completed college-level courses offered by high schools through the CEEB Advanced Placement Program and who have passed the National Examinations of the CEEB Advanced Placement Program with a score of three (3) or higher will be awarded advanced placement credit in the equivalent courses at the College. Advanced Placement scores must be received for CEEB after the student applies for admission but prior to the beginning of the semester in which the student wants the credit to be applied. It is the student’s responsibility to have the College Entrance Examination Board forward reports to the College Office of Admissions. The student should be aware that some universities may require a score of four (4) for advanced placement. Acceptance of a score of three (3) by the College will not assure that the senior institution will award advanced credit for the course credit through advanced placement by the College. A maximum of 20 semester hours credit may be awarded by state community and junior colleges.

D. Articulated Credit

Articulation is a planned process that allows a high school student enrolled in certain Occupational/Technical Programs, the opportunity to progress from secondary to postsecondary in a sequential manner without duplication of instruction. Students may receive up to one semester of postsecondary course credit for skills and theory received at a high school. Applicants seeking credit transfer from high school should contact the Occupational Program Instructor or contact the Admissions Office at the College for specific instructions.
E. College Level Examination Program

(CLEP) is a National System of credit by examination. The College is an open test center.

The College honors credit earned through CLEP examinations provided appropriate scores are achieved, and certain conditions are met. A minimum score at or above the 50th percentile on both general examinations and subject examinations is required for specific course credit.

Any elective credit earned by nontraditional means may apply toward the total number of hours required for graduation but may not apply toward specific requirements in particular subject area. For example, elective credit in English will not meet degree requirements of composition or literature.

Credit for SUBJECT EXAMINATIONS is granted provided the student has not been enrolled for more than one week in the course for which credit is to be earned. CLEP credit is not granted for college level courses previously failed, for courses in which credit for higher level course work has been earned, or for both subject examination and its course equivalent.

The policy of granting credit through CLEP at the College may differ from policies at other colleges. CLEP Tests are administered by appointment. Tests will not be scheduled during final exams or during official registration dates. For more information, contact Carolyn Fincher, Phil Campbell Campus at 256.331.6297 or go to www.collegeboard.com/clep.

F. Biology Placement Examination

The state of Alabama has developed a Placement Exam for the Biology Department. The exam is an internet based 75-question, multiple choice placement test which covers the objectives of BIO 103. Students who must take BIO 104 to satisfy degree requirements will not be allowed to substitute the test for the BIO 103 pre-requisite course.

A student who passes this examination may proceed directly to BIO 201. For information on this exam, contact the Science Department Chairperson or the Division Chairperson.
### "CLEP" Subject Examinations (50th Percentile)

<table>
<thead>
<tr>
<th>Examinations</th>
<th>Score</th>
<th>Course Equivalencies and Credit Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Government</td>
<td>50</td>
<td>POL SCI 211</td>
</tr>
<tr>
<td>American History I</td>
<td>50</td>
<td>HIS 201</td>
</tr>
<tr>
<td>American History II</td>
<td>50</td>
<td>HIS 202</td>
</tr>
<tr>
<td>American Literature</td>
<td>50</td>
<td>ENG 251, 252</td>
</tr>
<tr>
<td>Biology</td>
<td>50</td>
<td>BIO 103</td>
</tr>
<tr>
<td>Calculus with Elementary Functions</td>
<td>50</td>
<td>MTH 125</td>
</tr>
<tr>
<td>College Algebra</td>
<td>50</td>
<td>ENG 101, 102</td>
</tr>
<tr>
<td>College Composition (with essay)</td>
<td>50</td>
<td>CIS 146</td>
</tr>
<tr>
<td>Computers and Data Processing</td>
<td>50</td>
<td>PSY 210</td>
</tr>
<tr>
<td>Developmental Psychology</td>
<td>50</td>
<td>ENG 261, 262</td>
</tr>
<tr>
<td>English Literature</td>
<td>50</td>
<td>CHM 113, 114</td>
</tr>
<tr>
<td>General Chemistry</td>
<td>50</td>
<td>PSY 200</td>
</tr>
<tr>
<td>General Psychology</td>
<td>50</td>
<td>BUS 275</td>
</tr>
<tr>
<td>Introduction to Business Management</td>
<td>50</td>
<td>BUS 241</td>
</tr>
<tr>
<td>Introduction to Business Law</td>
<td>50</td>
<td>BUS 263</td>
</tr>
<tr>
<td>Introduction to Macroeconomics</td>
<td>50</td>
<td>ECO 231</td>
</tr>
<tr>
<td>Introduction to Microeconomics</td>
<td>50</td>
<td>ECO 232</td>
</tr>
<tr>
<td>Introduction to Micro and Macro</td>
<td>50</td>
<td>ECO 231, 232</td>
</tr>
<tr>
<td>Introduction to Marketing</td>
<td>50</td>
<td>BUS 285</td>
</tr>
<tr>
<td>Introduction to Sociology</td>
<td>50</td>
<td>SOC 200</td>
</tr>
<tr>
<td>Spanish I</td>
<td>50</td>
<td>SPA 101</td>
</tr>
<tr>
<td>Spanish II</td>
<td>63</td>
<td>SPA 102</td>
</tr>
<tr>
<td>Western Civilization I</td>
<td>50</td>
<td>HIS 101</td>
</tr>
<tr>
<td>Western Civilization II</td>
<td>50</td>
<td>HIS 102</td>
</tr>
<tr>
<td>Principles of Management</td>
<td>50</td>
<td>BUS 275</td>
</tr>
</tbody>
</table>

### Honors

The College recognizes scholastic achievement by publishing the President's List and the Dean's List at the end of each regular semester.

The President's List includes the names of students enrolled in twelve or more hours who have a GPA of 4.0. Developmental courses carrying grades of A-F will be calculated in the term GPA, but will not count toward the minimum course load requirement for honors purposes.

The Dean's List includes the names of students enrolled in twelve or more hours who have a GPA of 3.5 or above but below 4.0. Developmental courses carrying grades of A-F will be calculated in the semester GPA but will not count toward the minimum course load requirement for honors purposes.

### Academic Honors Upon Graduation

Academic honors will be awarded annually to the three students achieving the highest Cumulative GPA as follows:

Highest Academic Achievement in a Degree Program
Highest Academic Achievement in a Certificate Program

These awards can be presented only to students having a GPA of 3.75 or higher on all college work. Awards for certificate programs will be made only for programs which are one year or longer. Duplicate awards will be made if necessary.

The attainment of the following Cumulative GPA at the end of the spring term prior to spring graduation entitles the graduating students to honors at the Honor's Day Program.

### Graduation Honors for Degrees

Superior academic achievement by graduating students shall be recognized by the following designations on transcripts:

Graduation with Highest Honors
(or Summa Cum Laude) .......................3.90 to 4.00 GPA

Graduation with High Honors
(or Magna Cum Laude) .......................3.70 to 3.89 GPA

Graduation with Honors
(or Cum Laude) .............................3.50 to 3.69 GPA

### Graduation Honors for Certificates

Graduation with Distinction ....................3.5 to 4.00 GPA

NOTE: Calculation of the GPA for graduation honors shall be identical to that method used to calculate the GPA to fulfill graduation requirements for the degree, diploma, or certificate being earned. In addition, in order to be eligible for a graduation honor, the student must have completed a minimum of 32 semester credit hours of college-level courses at the College.
Graduation Requirements
The College awards the Associate in Arts, the Associate in Science, the Associate in Applied Science, the Associate in Occupational Technology Degrees, or Certificates for non degree programs.

Degrees
The Associate in Arts and the Associate in Science degrees are awarded to students who complete planned university parallel programs and the General Education Minimum Requirements as outlined in this catalog.

A majority of the Associate in Arts and Associate in Science Degree Programs are designed for those students who plan to transfer to four-year institutions to pursue programs of study requiring little specialization on the freshman and sophomore levels. Substitutions to degree requirements in these programs are possible to afford maximum course transfer to a specific institution. All substitutions must be recommended by the advisor and approved by the appropriate Department Head or Division Chairperson and the Vice President’s Office.

The Associate in Applied Science Degree is awarded to students who satisfy the requirements of a specific career, technical, or occupational degree program as outlined in this catalog.

The Associate in Occupational Technology Degree may be awarded to students who satisfy the requirements in both a primary and secondary technical specialty.

Degree Requirements
1. Meet program requirements. Each student will determine program requirements from the College catalog. (Students who maintain continuous enrollment excluding summer term may elect either to meet graduation requirements specified in the original catalog in effect when they entered, or they may elect to meet graduation requirements listed in the catalog in effect at the time for graduation. Students who do not maintain continuous enrollment may use the catalog in effect at the point of readmission or the one in effect at the time for graduation to determine graduation requirements.)
2. Earn a Cumulative GPA of 2.0 in all courses attempted at the College. When a course (other than one which can be repeated for credit) has been repeated, only the most recent attempt will be used in calculating the Cumulative GPA for graduation. However, a course may be counted only once for purposes of meeting graduation requirements unless specifically noted in the course description.
3. Complete at least 25 percent (25%) of degree requirements at the College.
4. Clear all procedural, operational, and financial obligations to the College.

Occupational and General Certificate Requirements
Graduation requirements for certificate programs are the same as those described for degrees. In order to graduate from certificate programs, students must complete all program requirements as outlined. Course substitutions are made only with the approval of the Department Head or Division Chairperson and the Vice President’s Office.

Multiple Degrees or Certificates
Students may receive more than one degree or certificate with the following stipulations:
1. Only one transfer degree (Associate in Arts - AA or Associate in Science - AS) will be awarded;
2. All program-specific courses must be completed for each Associate in Occupational Technology Degree and each Associate in Applied Science Degree awarded. Required general education courses (orientation, English, Speech, math, science, etc.) may be used for multiple degrees.
3. The cost for reprinting a degree will be $17.50.

Graduation
When a student meets the required number of hours for his or her program of study, the student will automatically be graduated. The degree or certificate will be reflected on the student’s transcript. Students who have graduated will receive a printed copy of the award.

Any questions regarding graduation should be directed to the Advising Center at 256.331.5221 or email to advising@nwscc.edu.

Reverse Transfer
Northwest-Shoals Community College participates in the statewide initiative to award Associate degrees based on reverse transfer from four-year institutions located within the state of Alabama.

To be eligible for a reverse transfer, students must have earned at least 25 percent of the credits they need for a degree from a community college and have earned at least three semester hours from the four-year institution as part of the overall associate degree requirements.

Questions concerning the reverse transfer program should be directed to the Registrar/Coordinator of Admissions and Graduation at 256.331.5462 or email transcripts@nwscc.edu.

All paperwork for the associate degree will be completed by NW-SCC. Any questions concerning the degree audit should be directed to the Advising Center at 256.331.5221 or email advising@nwscc.edu.
Methods of Course Delivery

Off-Campus College Sites
The College may offer courses at off-campus locations. Through off-campus classes, students may pursue a college degree or expand their base of knowledge without driving long distances. See current class schedule for times and sites. Students use library services from the Shoals and the Phil Campbell Campuses. A needs assessment survey will be completed by off-campus students each semester to determine how the College may improve its services. Contact the Vice President's Office at 256.331.5240.

Videoconference System
The College provides two-way, interactive videoconferences, workshops, and courses through videoconferencing equipment. This system was set up to enable selected Alabama public educational institutions to share resources and to communicate quickly and easily from site to site. The system transmits college courses at the graduate and undergraduate levels, academic meetings, business conferences, technical training, continuing education courses and workshops. The videoconference system enables users at multiple locations to interact as if they were all in the same room. All conference participants see and hear other participants through video monitors.

The College has several videoconference classrooms located on both campuses.

Since videoconference students attend class on-campus, registration and access to student services and other resources is the same as for all other on-campus students. Videoconference students do not have to complete the distance education orientation.

Distance Education
Through distance education, the College is reaching beyond its campus into homes and workplaces to help students overcome the obstacles of time, geography, and career commitments. Distance education courses are based on the same instructional outcomes and objectives as on-campus courses.

Online courses and blended courses are offered by the College. These courses are listed in the class schedule each semester.

**ONLINE COURSES** - An online distance education course is delivered via the internet using a campus-supported Learning Management System (LMS). With the exception of proctored exams, no on-campus meetings are required.

**BLENDED COURSES** - A blended distance education course replaces the majority of face-to-face and/or theory time with online instructional time so that at least 75% of the content is provided in an entirely online format.

Students may earn an Associate in Arts or Associate in Science Degree by taking distance education courses.

Students may find additional information on minimum technology and skill requirements as well as other general information on the College website under Online and Distance Education or by contacting the Distance Education Office at 256.331.5395 or cookson@nwscc.edu.
Plans of Study

General Education/University Transfer

The College is authorized to award the Associate in Arts (AA) and Associate in Science (AS) degrees for students planning to transfer to a four-year college or university. A student who plans to transfer to a senior institution should obtain the current catalog of that institution to use as a check sheet in fulfilling freshman and sophomore course requirements of that institution.

Transfer guides are available in the advising center to help students determine what courses should be taken while at Northwest-Shoals. A student in consultation with an academic advisor usually can develop an educational plan using the transfer guides that parallels the first two years of the program of the four-year institution to which the student plans to transfer. In a few instances, one or two specialized courses may not be taught, but the student can substitute electives that may fulfill the requirements of the institution to which the student will transfer. In summary, individual guides can be produced to meet the needs of the transfer student.

Entering students should be aware that it is quite common that a student will need to take additional pre-requisite courses. For example, the appropriate beginning course in mathematics or English will be determined by placement scores and high school preparation; the beginning course in Computer Information Systems program will depend on the prior experience of the student in computers and mathematics. A student may be required to enroll in a reading course prior to some college courses.

Every effort is made to ensure that the courses and programs described in this catalog are offered to students in an appropriate and reasonable sequence. Students should be aware, however, that admission to the College or registration for a given semester does not guarantee the availability of a specific course or a program of courses that may be under review for continuance. Availability of courses and programs is determined by student demand, instructor availability, and periodic program reviews. Whenever a program is determined to have insufficient numbers to continue institutional support, students currently enrolled will, whenever possible, be given notification of the decision and sufficient time to complete the program with continuous enrollment. If new students are enrolled after this decision, they will be advised of the tentative status of the program and their potential inability to complete the program at this institution.

STARS (Alabama Articulation Program)

The Alabama Articulation Program (also called STARS – Statewide Articulation Reporting System) is a computerized articulation and transfer planning system designed to inform students who attend Alabama Community Colleges about degree requirements, course equivalents, and other transfer information pertaining to specific majors at each state funded four-year institution. Students planning to transfer to an Alabama public senior institution should print and retain the Transfer Guide for their major along with the transfer institution’s Area V courses. Failure to follow this guide may result in courses not being transferable. It is the student’s responsibility to become familiar with the requirements of the intended transfer senior institution. Students interested in receiving a STARS Transfer Guide should visit the STARS web site at http://stars.troy.edu or contact their advisor.
PLANS OF STUDY

University Parallel Transfer Guides are available in the Advising Center or by visiting an academic advisor.

**Associate in Arts Degree**
- Art
- General Liberal Arts
- Music
- Pre-Law
- Teacher Education
  - Pre-Elementary Education
  - Pre-Secondary Education

**Associate in Science Degree**
- Business Administration
- Child Development
- Computer Information Systems
- Environmental Health & Safety
- General Education
- Medical Technology
- Pre-Chemical Laboratory Technician
- Pre-Computer Science
- Pre-Criminal Justice
- Pre-Dentistry
- Pre-Engineering
- Pre-Environmental Biology
- Pre-Environmental Science
- Pre-Financial Planning & Counseling
- Pre-Health, Physical Education and Recreation
- Pre-Industrial Hygiene
- Pre-Medicine
- Pre-Nursing (B.S.N.)
- Pre-Optometry
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Veterinary Medicine
- Water & Wastewater Management & Technology
**Associate in Arts and Associate in Science Degrees**

The Associate in Arts and Associate in Science degrees require a minimum of 60 semester hours credit for completion. These degrees are essentially planned sets of general education courses that make up the first half of a four-year baccalaureate degree. Thus, Associate in Arts and Associate in Science degree students do not officially major in an academic discipline at Northwest-Shoals. Majors are actually defined by the institutions to which these students transfer. However, Associate in Arts and Associate in Science degree students are assigned to an advisor on the basis of an intended major or a field of interest indicated by individual students.

**It is the student's responsibility to become familiar with the requirements of the senior institution to which transfer may occur.** A student planning to transfer should follow a prescribed transfer program in order to prevent loss of credit upon transferring. Students should consult with their advisor or the Advising Center before registering.

**Note 1:** The specific courses are suggested for graduation and transfer requirements. Students should consult the requirements of the senior institution to which they plan to transfer.

Placement in college level English, math, and science courses depends upon scores achieved in placement tests (ASSET, COMPASS, ACCUPLACER, or ACT). Placement in developmental level courses may be required to ensure student success but will not count toward graduation.

**Note 2:** The College recommends that students take a sequence in literature and history. However, the state requirement is that at least one history and one literature must be completed with a sequence in one or the other. If only one literature is completed, the student must take an additional course from Area II to replace it. If only one history is completed, the student must take an additional course from Area IV to replace it. Only ART 100 or MUS 101 will generally meet the fine art requirement at transfer institutions.

**Note 3:** Students may take courses as many times as permissible, credit will not be cumulative.
**Degree Requirements for the Associate in Arts Degree or the Associate in Science Degree**

The Associate Degree (A.A. or A.S.) is awarded to a student completing a planned university parallel program designed to meet the requirements of the first two years of a Bachelor of Arts Degree or a Bachelor of Science Degree. The requirements vary with individual four-year institutions; therefore, students should consult the catalog of the four-year college to which they plan to transfer, discuss plans with their advisor, and/or consult the Advising Center. ORI107 (Student Success) is a college requirement, not a requirement of a specific program. All associate degrees contain the following core requirements:

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>*ENG 101 and 102</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II: Humanities and Fine Arts</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262</td>
<td>6</td>
</tr>
<tr>
<td>SPH 107</td>
<td>3</td>
</tr>
<tr>
<td>Elective: (Choose one course from:) ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101</td>
<td>3</td>
</tr>
</tbody>
</table>

**Students must complete a six hour sequence in Literature or History**

<table>
<thead>
<tr>
<th>Area III: Natural Sciences and Mathematics</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science: (Choose two core courses from:) BIO 101, BIO 102, BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202; PHY 213, 214</td>
<td>8</td>
</tr>
<tr>
<td>Math: (Choose one course from:) MTH 110 or MTH 112 (or above), MTH 113, 120, 125, 126, 227, 237, 238</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area IV: History, Social and Behavioral Science</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>*History: HIS 101 and 102 or HIS 201 and 202</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences: (Choose two courses from:) ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210</td>
<td>6</td>
</tr>
</tbody>
</table>

**Students must complete a six hour sequence in Literature or History**

<table>
<thead>
<tr>
<th>Area V: Pre-Professional, Pre-Major, and Elective Courses</th>
<th><strong>19-23</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ORI 107 is required for graduation</td>
<td></td>
</tr>
<tr>
<td>CIS 146 or demonstrated equivalent computer competency skills.</td>
<td></td>
</tr>
<tr>
<td>Choose remaining 15-19 hours from degree requirements and major from elective courses appropriate to individual student and transfer institution.</td>
<td></td>
</tr>
<tr>
<td>NOTE: Students transferring to Engineering Programs require Area II (9 hrs.), Area IV (9 hrs.), and Area V (25-29 hrs.)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Semester Transfer Hours** **60-64**

*Keyboarding skills are essential for the successful completion of English 101.*
Career, Technical and Occupational Programs

Plans leading to the Associate in Applied Science and the Associate in Occupational Technology degrees are college-level programs of study designed to prepare students to enter occupational, semi-professional, or para-professional employment. Though many of the courses in these programs transfer to four-year colleges and universities, the primary intent is to prepare students for immediate employment after successful completion of a two-year program of courses.

Certificates are awarded to students who successfully complete the requirements of specific technical or occupational programs. These programs are offered to students who want to prepare for specific occupational employment. These programs vary in length from two to five semesters. Entry into a career, technical, or occupational program is dependent upon the student’s ability to perform the essential functions of the program.

The College offers several short certification programs on an “as needed” basis. We refer to these short certification programs as General Certificate Programs. Many of these programs meet the minimum requirements for taking state board or other qualifying examinations.

**Associate in Applied Science Degree**

Business Office Management

Business Management Supervision.......................... 520401 BMS

Computer Technology ...................................... 520401 CTB

Accounting Technology ..................................... 520401 BAT

Child Development .......................................... 190708 CHD

Cyber Security Option ....................................... 110101 CSO

Software Development Option ............................ 110101 SDO

Criminal Justice ............................................. 430107 CRJ

Design Engineering Technology .......................... 151301 D&D

Diagnostic Imaging - Radiography ....................510911 MRAD

Diagnostic Medical Sonography ......................... 510910 MDMS

Emergency Medical Services ............................. 510904 EMP

Environmental Health and Safety Technician ........ 150507 ETV

Industrial Systems Technology

Electrical Option............................................ 470303 IEO

Instrumentation Option ................................... 470303 IO

Mechanical Option ........................................ 470303 IMO

Medical Assisting Technology ......................... 510801 MAT

Registered Nursing ......................................... 513801 NUR

Nursing Mobility (LPN and Paramedic to ADN) ...... 513801 MOB

Salon and Spa Management

Cosmetology .................................................. 120412 SCO

**Associate in Occupational Technology Degree**

Accounting Technology .................................... 309999 ACB/AOD

Air Conditioning/Refrigeration Tech. ................ 309999AET/AWT/MSAR

Automotive Collision Repair .............................. 309999 ABB/ABW/ABA/MSAB

Automotive Service Technology .......................... 309999 AUR/AMT/MSAU

Carpentry/Cabinetmaking .................................. 309999 CBU/CCW/MSCA

Electrical Technology ....................................... 309999 EAC/ETW/MSWE

Machine Shop Technology ................................ 309999 MWT/ACRT/MSMS

Welding ..................................................... 309999 BCS/WCR/WMS/AUT/WAC/MSWE

**Career Certificates**

Accounting Technology ..................................... 520302 ACT

A/C/Refrigeration Technology .............................. 150501 ACR

Automotive Collision Repair ............................... 470603 ABR

Automotive Service Technology .......................... 470604 AST

Business Office Management .............................. 520401 BOM

Carpentry/Cabinetmaking .................................. 460201 CAR

Electrical Technology ...................................... 460302 ELT

Industrial Systems Technology Basic ................ 470303 IST

Machine Tool/Computer Numerical Control (CNC) .. 480503 MSP

Paramedic ..................................................... 510904 EMS

Practical Nursing (LPN) ................................... 511613 LPN

Salon and Spa Management

Cosmetology .................................................. 120412 SSC

Welding ..................................................... 480508 WEL

**Short-Term General Certificates**

Accounting Technology Bookkeeping .................. 520302 BKC

Air Conditioning/Refrigeration Tech. Basic ......... 150501 ARB

Air Conditioning/Refrigeration

Tech. Level 1 ............................................. 150501 ACR1

Air Conditioning/Refrigeration

Tech. Level 2 ............................................. 150501 ACR2

Air Conditioning/Refrigeration

Tech. Level 3 ............................................. 150501 ACR3

Automotive Collision Repair Basic .................... 470603 AUC

Automotive Service Technology Basic ............... 470604 AUM

Automotive Service Technology Advanced .......... 470604 AAS

Biomedical Equipment Technology ..................... 150401 BET

Cabinetmaking Basic ....................................... 480703 CAB

Cabinetmaking Advanced .................................. 480703 ACM

Carpentry Basic ........................................... 460201 BC

Carpentry Advanced ....................................... 460201 AC

Chemical Laboratory Technician ....................... 410301 CHM

Child Development ......................................... 190708 CHD

Computer Aided Design Engineering Technology .... 151301 DDT

Computer Technology

Cyber Security Technician ................................ 110101 CST

Microcomputer Applications ............................. 110111 MAC

Software Technician ....................................... 110101 PST

Swift Programming ......................................... 110101 SPC

Electrical Technology

Commercial Technician ................................. 460302 ETCO

Industrial Technician ..................................... 460302 ETIN

Residential Tech............................................ 460302 ETRE

EMT ......................................................... 510904 EMT

EMT Advanced ............................................. 510904 EMA

Environmental, Health & Safety Technician ......... 150507 EHS

Industrial Systems Technology ......................... 470303 INS

Basic .......................................................... 470303 ISBA

Electrical ..................................................... 470303 ISEL

Instrumentation ............................................. 470303 ISIN

Mechanical ................................................... 470303 ISME

Medical Assisting Technology

Phlebotomy Option ........................................ 510801 PBY

Medical Billing and Coding Option ................. 510801 MCO

Salon and Spa Management

Instructor Training ......................................... 120499 CIT

Water & Wastewater Management ..................... 150506 W&M

Welding Technology Basic ................................ 480508 WDT

SMAW (Stick) Basic ........................................ 480508 WBS

FCAW/GMAW (MIG/Flux Cored) ......................... 480508 WFG

GTAW Plate and Pipe (TIG) ............................. 480508 WPP

SMAW Groove and Pipe (Stick) ......................... 480508 WGP

**Special Program**

Nursing Assistant ......................................... 513902 NAS
Associate in Occupational Technology (AOT) Degrees

These degrees are designed for students seeking to become multi-skilled technicians. The AOT includes both a primary technical specialty and a secondary technical specialty.

General Education Core for Associate in Occupational Technology Degree
Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: Written Composition .........................................................3-6</td>
</tr>
<tr>
<td>Area II: Humanities and Fine Arts ...................................................3-6</td>
</tr>
</tbody>
</table>

*NOTE: SPH107 or foreign language may NOT be the one course designated to fulfill SACSCOC Core Requirement 2.7.3 for Humanities and Fine Arts.

Area III: Natural Sciences and Mathematics .................................6
Three hours must be in Mathematics and three hours in a Natural Science course: Biological Sciences, Chemistry, Environmental Science, Physics, or Physical Science

Area IV: History, Social and Behavioral Science .........................3

Area V: Technical Concentration and Electives .............................39-61
A technical major requires a minimum of 27 credit hours in a single content area.
A technical minor has a minimum of 12 credit hours in another related technical area.

General Education Core........................................................................15-21
Technical Concentration and Electives.............................................39-61
Total Minimum ....................................................................................60
Associate in Applied Science (AAS) Degrees

These degrees are designed for students planning to specialize in technical, business, semi-professional, and supervisory fields that are career-oriented. Portions of this degree may, in selected fields transfer to a senior institutions.

General Education Core for Associate in Applied Science Degree
Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

**Semester Hours**

| Area I: Written Composition | 3-6 |
| Area II: Humanities and Fine Arts | 3-6 |

*NOTE: SPH107 or foreign language may NOT be the one course designated to fulfill SACSCOC Core Requirement 2.7.3 for Humanities and Fine Arts.

| Area III: Natural Sciences and Mathematics | 6-11 |
| Three hours must be in Mathematics and three hours in a Natural Science course: Biological Sciences, Chemistry, Environmental Science, Physics, or Physical Science |

| Area IV: History, Social and Behavioral Science | 3-6 |

| Area V: Technical Concentration and Electives | 31-61 |
| Courses appropriate to the degree requirements, occupational or technical speciality requirements, core courses, and electives |

General Education Core .......................................................... 15-29
Technical Concentration and Electives ........................................... 31-61
Total Minimum ........................................................................ 60
Total Maximum ....................................................................... 76
Accounting Technology
AOT Degree

Available: Shoals Campus
Advisors: D. South (5211) dsouth@nwscc.edu

The AOT Award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ........................................6
**ENG 101 English Composition I ..........................3
ENG 102 English Composition II or
ENG 130 Technical Report Writing ..........................3

Area II: Humanities and Fine Arts ................................3
Choose ONE course from among:
ENG 251, ENG 252, ENG 261, ENG 262, ENG 271,
ENG 272, ART 100, MUS 101, PHL 106, PHL 206, REL
100, REL 151, or REL 152

Area III: Natural Science and Mathematics ..............6-7
MTH 116 Mathematical Applications or higher ..........3
Choose ONE course from among a Natural
Science:
Biological Science, Chemistry, Environmental
Science, Physics, or Physical Science ..................4

Area IV: History, Social and Behavioral Sciences ......3
Choose ONE course from among:
HIS 101, HIS 102, HIS 201, HIS 202, ECO 231, ECO
232, GEO 100, POL 211, PSY 200, or SOC 200
(Economics 231 or 232 preferred)

Total General Education Core ..............................18-19

Area V: Technical Concentration and Electives ..........39
ACT 104 Introduction to Business .........................3
+ACT 114 Introduction to Accounting Database Resources ..........................3
ACT 195 Accounting Co-op ..................................3
***ACT 246 Microcomputer Accounting OR
OAD 137 Computerized Financial Record Keeping ........3
+ACT 247 Advanced Accounting Applications on the
Microcomputer ..................................................3
+ACT 249 Payroll Accounting ................................3
+ACT 253 Income Tax .........................................3
*ACT 256 Cost Accounting or BUS 248 Managerial Accounting ...........3
BUS 241 Principles of Accounting I .................3
BUS 242 Principles of Accounting II ................3
CIS 146 Microcomputer Applications ..................3
Choose two courses from among ..............................6
ACT 115 Introduction to Accounting Computer Resources ..........................3
*ACT 254 Business Income Tax ................................3
ACT 257 Governmental and Not-for-Profit Accounting ..........3
CIS 147 Advanced Microcomputer Applications ..........3

Minor Requirements
Business Management and Supervision 309999 ACB
BUS 275 Principles of Management ..................3
BUS 215 Business Communications ................3
BUS Electives ..................................................6
Total Minor Requirements .....................................12

Minor Requirements
Office Administration 309999 AOD
OAD 101 Beginning Keyboarding .......................3
OAD 130 Electronic Calculations .....................3
OAD 133 Business Communications ................3
OAD 138 Records/Information Management ..........3
Total Minor Requirements ..................................12

General Education Core .................................18-19
Technical Concentration and Electives .................39
Minor Requirements ........................................12
Total Requirements for AOT Degree ....................70

*Keyboarding skills are essential for the successful completion of ENG 101.

Accounting Technology 520302 ACT
Career Certificate

Available: Shoals Campus
Advisors: D. South (5211) dsouth@nwscc.edu

Accounting Technology is designed to meet the need for personnel in a broad range of accounting fields, including accounting systems, recordkeeping, financial statements, payroll accounting, and other areas.

The certificate is designed for the student who does not intend to transfer to a four-year institution but intends to seek immediate employment. This certificate is appropriate for students who are employed and wish to gain a better understanding of accounting.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

General Education Requirements Semester Hours
**ENG 101 English Composition I .....................3
MTH 116 Mathematical Applications ................3
CIS 146 Microcomputer Applications ................3
OAD 133 or BUS 215 Business Communications ....3
Total General Education Requirement ................12

Major Requirements
ACT 104 Introduction to Business ......................3
+ACT 114 Introduction to Accounting Database Resources ........3
BUS 241 Principles of Accounting I ................3
BUS 242 Principles of Accounting II ................3
***ACT 246 Microcomputer Accounting ............3
+ACT 247 Advanced Accounting Application ........3
+ACT 253 Income Tax .....................................3
+ACT 249 Payroll Accounting ..........................3
*ACT 256 Cost Accounting or BUS 248 Managerial Accounting ..........3
ACT ELECTIVE ..................................................3
Total Major Requirements ..................................30

Total Semester Credit Hours .........................42

*Summer Only
**Keyboarding skills are essential for the successful completion of English 101.
***Fall Only
+ Spring Only
Accounting Technology 520302 BKC
Bookkeeping Short-Term Certificate

Available: Shoals Campus
Advisors: D. South (5211) dsouth@nwscc.edu
R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment or to allow current employees to advance to a new position. Students are provided with general accounting knowledge and skills to enable them to fill a bookkeeper position. It gives the students basic accounting skills they would need to complete journal entries and to maintain the general ledger of a company. They will also receive the necessary skills to prepare the payroll for a business and to complete quarterly payroll tax returns. Students should have the necessary skills to operate QuickBooks accounting software with confidence.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

General Education Requirements

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 241 Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BUS 242 Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ACT 114 Introduction to Accounting Databases</td>
<td>3</td>
</tr>
<tr>
<td>ACT 246 Microcomputer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 249 Payroll Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>

Total General Education Requirement | 15 |

Area I: Written Composition

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101, English Composition I or ENG 130, Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

Area II: Humanities and Fine Arts

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Fine Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Area III: Natural Science and Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 3 hours of degree creditable coursework may be taken from disciplines of biology, chemistry, physical science, physics, environmental technology.</td>
<td></td>
</tr>
</tbody>
</table>

Area IV: History, Social and Behavioral Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>History, Social and Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Total General Education Core | 15 |

Area V: Technical Concentration and Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 111 Refrigeration Principles</td>
<td>3</td>
</tr>
<tr>
<td>ACR 112 HVACR Service Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACR 113 HVACR Service Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACR 119 Fundamentals of Gas Heating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 121 Principles of Electricity for HVACR</td>
<td>3</td>
</tr>
<tr>
<td>ACR 123 HVACR Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 125 Commercial Heating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 132 Residential Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>ACR 147 Refrigeration Transition and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>ACR 148 Heat Pump Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ACR 181 Special Topics in AC and Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 195 Co-Op</td>
<td>3</td>
</tr>
<tr>
<td>ACR 203 Commercial Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 205 System Sizing and Air Distribution</td>
<td>3</td>
</tr>
<tr>
<td>ACR 209 Commercial Air Conditioning Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor Requirements

Electrical Technology

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 114 Residential Wiring Methods</td>
<td>3</td>
</tr>
<tr>
<td>ELT 115 Residential Wiring Methods II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 131 Commercial/Industrial Wiring I</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose ONE course from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 114 Residential Wiring Methods</td>
<td>3</td>
</tr>
<tr>
<td>ELT 132 Commercial/Industrial Wiring II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 209 Motor Controls</td>
<td>3</td>
</tr>
<tr>
<td>ELT 244 Conduit Bending I</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minor Requirements | 12 |

Welding

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDT 108 SMAW Fillet/OFC</td>
<td>3</td>
</tr>
<tr>
<td>WDT 109 SMAW Fillet/PAC/CAC</td>
<td>3</td>
</tr>
<tr>
<td>WDT 122 SMAW Fillet/OFC Lab</td>
<td>3</td>
</tr>
<tr>
<td>WDT 123 SMAW Fillet/PAC/CAC Lab</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minor Requirements | 12 |

Summer Semester Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDT 110 Blue Print Reading</td>
<td>3</td>
</tr>
<tr>
<td>WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory</td>
<td>3</td>
</tr>
<tr>
<td>WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab</td>
<td>3</td>
</tr>
<tr>
<td>WDT 219 Welding Inspection and Testing</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minor Requirements | 12 |

MSSC Certified Production Technician

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADM 291 MSS Safety Course</td>
<td>3</td>
</tr>
<tr>
<td>ADM 292 MSS Quality Practices and Measurement Course</td>
<td>3</td>
</tr>
<tr>
<td>ADM 293 MSSC Manufacturing Processes Production Course</td>
<td>3</td>
</tr>
<tr>
<td>ADM 294 MSSC Maintenance Awareness</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Minor Requirements | 12 |

General Education Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Technical Concentration and Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 111 Refrigeration Principles</td>
<td>3</td>
</tr>
<tr>
<td>ACR 112 HVACR Service Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACR 113 HVACR Service Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACR 119 Fundamentals of Gas Heating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 121 Principles of Electricity for HVACR</td>
<td>3</td>
</tr>
<tr>
<td>ACR 123 HVACR Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 125 Commercial Heating Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 132 Residential Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>ACR 147 Refrigeration Transition and Recovery</td>
<td>3</td>
</tr>
<tr>
<td>ACR 148 Heat Pump Systems I</td>
<td>3</td>
</tr>
<tr>
<td>ACR 181 Special Topics in AC and Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 195 Co-Op</td>
<td>3</td>
</tr>
<tr>
<td>ACR 203 Commercial Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 205 System Sizing and Air Distribution</td>
<td>3</td>
</tr>
<tr>
<td>ACR 209 Commercial Air Conditioning Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Total Requirements for AOT Degree | 72 |

*Computer competency skills are embedded within one or more courses required in this curriculum.
Air Conditioning/Refrigeration 150501 ACR Technology
Career Certificate

Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

The health, comfort, and productivity of any nation is dependent upon air conditioning and refrigeration equipment. Air conditioning has become a necessity rather than a luxury in today’s homes, offices, public buildings, and industries.

Air Conditioning/Refrigeration Technology covers the practical application of planning, installing, and servicing heating, air conditioning and refrigeration equipment in residential and commercial establishments.

The increased use of air conditioning and refrigeration in homes and work environments provides growing job opportunities in transportation, food preservation, manufacturing, space programs, medical services, and many others.

Transfer Students: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ..............................................3
ENG 101 or English Composition I or English ..... 130 Technical Writing

Area III: Natural Science and Mathematics .................3
MTH 116, Mathematical Applications

General Education Core.................................................... 6

Area V: Technical Concentration and Electives........45
Theory Lab Hours
ACR 111 Refrigeration Principles 1 6 3
ACR 112 HVACR Service Procedures 1 4 3
ACR 113 Refrigeration Piping Practices 1 6 3
ACR 119 Fundamentals of Gas Heating Systems 1 6 3
ACR 121 Principles of Electricity for HVACR 1 6 3
ACR 123 HVACR Electrical Components 1 6 3
ACR 126 Commercial Heating Systems 1 6 3
ACR 132 Residential Air Conditioning 1 4 3
ACR 147 Refrigeration Transition and Recovery 3 0 3
ACR 148 Heat Pump System I 1 6 3
ACR 181 Parallel Refrigeration 3 0 3
ACR 195 Co-Op 0 3 3
ACR 203 Commercial Refrigeration 1 6 3
ACR 205 System Sizing and Air Distribution 1 4 3
ACR 209 Commercial Air Conditioning 1 4 3

General Education Core.................................................... 6
Technical Concentration and Electives........45
Total Requirements .................................................... 51

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

Air Conditioning/Refrigeration 150501 ARB Technology ACR Basic Short-Term Certificate

Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided technical knowledge and job specific skills that enable them to compete favorably in the Air Conditioning and Refrigeration industry. Opportunities for Air Conditioning and Refrigeration technicians exist in business service industries, manufacturing, repair work, and construction. Graduates of Basic Air Conditioning and Refrigeration Technology certificates will be prepared to enter the workforce as an entry level HVAC&R technician.

Semester Hours
ACR 111 Principles of Refrigeration 3
ACR 119 Fundamentals of Gas Heating Systems 3
ACR 121 Principles of Electricity for HVACR 3
ACR 148 Heat Pump Systems I 3
Total Semester Credit Hours.................................12

Air Conditioning/Refrigeration 150501 ACR1 Technology ACR Level 1 Short-Term Certificate

Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided technical knowledge and job specific skills that enable them to compete favorably in the Air Conditioning and Refrigeration industry. Opportunities for Air Conditioning and Refrigeration technicians exist in business service industries, manufacturing, repair work, and construction. Graduates of Basic Air Conditioning and Refrigeration Technology certificates will be prepared to enter the workforce as an entry level HVAC&R technician.

Semester Hours
ACR 113 Refrigeration Piping Practices 3
ACR 123 HVACR Electrical Components 3
ACR 126 Commercial Heating Systems 3
ACR 181 Special Topics in Air Conditioning and Refrigeration I 3
Total Semester Credit Hours.................................12
Air Conditioning/Refrigeration Technology ACR Level 2 Short-Term Certificate
Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided technical knowledge and job specific skills that enable them to compete favorably in the Air Conditioning and Refrigeration industry. Opportunities for Air Conditioning and Refrigeration technicians exist in business service industries, manufacturing, repair work, and construction. Graduates of Basic Air Conditioning and Refrigeration Technology certificates will be prepared to enter the workforce as an entry level HVAC&R technician.

Semester Hours
ACR 112 HVACR Service Procedures 3
ACR 209 Commercial Air Conditioning Systems 3
ACR 205 Systems Sizing and Air Distribution 3
Total Semester Credit Hours 9

Air Conditioning/Refrigeration Technology ACR Level 3 Short-Term Certificate
Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided technical knowledge and job specific skills that enable them to compete favorably in the Air Conditioning and Refrigeration industry. Opportunities for Air Conditioning and Refrigeration technicians exist in business service industries, manufacturing, repair work, and construction. Graduates of Basic Air Conditioning and Refrigeration Technology certificates will be prepared to enter the workforce as an entry level HVAC&R technician.

Semester Hours
ACR 132 Residential Air Conditioning 3
ACR 147 Refrigeration Transition and Recovery Theory 3
ACR 203 Commercial Refrigeration 3
Total Semester Credit Hours 9

Automotive Collision Repair AOT Degree
Available: Shoals Campus
Advisors: J. Morton (8037) joshua.morton@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

Students desiring to receive the AOT Award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ......................................... 3
ENG 101 English Composition I or ENG 130 Technical Writing 3
Area II: Humanities and Fine Arts ................................ 3
Area III: Natural Science and Mathematics ....................... 6
A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 3 hours of degree creditable coursework may be taken from disciplines of biology, chemistry, physical science, physics, environmental technology.
Area IV: History, Social and Behavioral Sciences .......... 3
Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.

General Education Core .................................................. 15
Area V: Technical Concentration and Electives ............ 45
ABR 111 Non-Structural Repair ...................................... 3
ABR 114 Non-Structural Panel Replacement 3
ABR 122 Surface Preparation ......................................... 3
ABR 123 Paint Application & Equipment ...................... 3
ABR 151 Safety & Environmental Practices ..................... 3
ABR 154 Auto Glass and Trim ........................................ 3
ABR 156 Auto Cutting and Welding 3
ABR 157 Plastic Repairs ................................................ 3
ABR 213 Automotive Structural Analysis 3
ABR 214 Automotive Structural Repair 3
ABR 223 Automotive Mechanical Components 3
ABR 265 Paint Defect ..................................................... 3
ABR Electives .............................................................. 6
Choose Two courses from:
ABR 258 Heating and AC .............................................. 3
ABR 261 Restraint Systems ............................................. 3
ABR 267 Shop Management .......................................... 3

Minor Requirements
Business Management and Supervision ................. 309999 ABB
BUS 275 Principles of Management 3
BUS Business Electives .............................................. 9
Total Minor Requirements ........................................... 12

Minor Requirements
Fall and Spring Semester
Welding ................................................................. 309999 ABB
WDT 108 SMAW Fillet/OFC ....................................... 3
WDT 109 SMAW Fillet/PAC/CAC 3
WDT 122 SMAW Fillet/OFC Lab 3
WDT 123 SMAW Fillet/PAC/CAC/Lab 3
Total Minor Requirements ........................................... 12

Minor Requirements
Summer Semester
Welding ................................................................. 309999 ABB
WDT 110 Blue Print Reading ...................................... 3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory 3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab 3
WDT 219 Welding Inspection and Testing 3
Total Minor Requirements ........................................... 12

Northwest-Shoals Community College 2019-2020
Minor Requirements

**Auto Mechanics**  309999  ABA
- AUM 101 Fundamentals of Automotive Technology  3
- AUM 112 Electrical Fundamentals  3
- AUM 121 Braking Systems  3
- AUM Elective  3

**Total Minor Requirements**  12

**MSSC Certified Production Technician**  309999  MSAB
- ADM 291 MSS Safety Course  3
- ADM 292 MSS Quality Practices and Measurement Course  3
- ADM 293 MSS Manufacturing Processes and Production Course  3
- ADM 294 MSS Maintenance Awareness  3

**General Education Core**  15
- Technical Concentration and Electives  45
- Minor Requirements  12
- **Total Requirements for AOT Degree**  72

*Computer competency skills are embedded within one or more courses required in this curriculum.

**Automotive Collision Repair**  470603  ABR

**Career Certificate**

Available: Shoals Campus
Advisors: J. Morton (8037) joshua.morton@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

Automotive collision repair has expanded throughout the country to become a major field of automotive work. Repairing damages and restoring the original beauty of an automobile requires the work of a master craftsman. Working conditions and employment opportunities are excellent and will continue to grow.

This Automotive Collision Repair program is designed to train students to repair an automobile correctly, economically, and safely. The program includes technology, welding, mathematics, shop safety, metal straightening, panel replacement, interior trim and body refinishing, auto electricity, glass replacement, frame straightening, fiber glass repair, and damage estimations. The student will learn how to become an automobile repair person with skills that include all phases of auto collision repair.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR 213</td>
<td>Auto Structural Analysis</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 214</td>
<td>Automotive Structural Repair</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 223</td>
<td>Automotive Mechanical Components</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 224</td>
<td>Automotive Electrical Components</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 255</td>
<td>Steering &amp; Suspension</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 258</td>
<td>Heating and AC in Collision</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 261</td>
<td>Restraint Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 265</td>
<td>Paint Defects/Final Repairs</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 266</td>
<td>MIG Welding in Collision Repair</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours**  58

*A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

**Automotive Collision Repair**  470603  AUC

**Basic Short-Term Certificate**

Available: Shoals Campus
Advisors: J. Morton (8037) joshua.morton@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate prepares students with technical knowledge and skills that allow them to become employed as automotive collision repairers. The students learn to straighten bent bodies, remove dents, and replace crumpled parts that are beyond repair. Most of the work is on cars and small trucks. This career offers variety and challenges. Automotive Collision repairers use special equipment to restore damaged metal frames and body sections. They may specialize in one type of repair, such as frame straightening, door and fender repair and glass installation.

Good reading and basic math skills and computer skills are essential to becoming a fully skilled automotive collision repairer. Automotive parts, body materials, and electronics continue to change and become more complex and technologically advanced. Gaining new skills, reading technical manuals, and attending seminars and classes are important for keeping up with these technological advances.

This short-term certificate does not require a high school diploma or GED certificate for admission. Students must be at least 16 years of age to enroll.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR 111</td>
<td>Non-Structural Repair</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 122</td>
<td>Surface Preparation</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 123</td>
<td>Paint Application &amp; Equip.</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 151</td>
<td>Safety &amp; Environmental Practices</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 154</td>
<td>Auto Glass Trim</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 156</td>
<td>Automotive Cutting and Welding</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 213</td>
<td>Automotive Structural Analysis</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ABR 214</td>
<td>Automotive Structural Repair</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>
Total Semester Credit Hours ........................................... 24

*Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

Automotive Service Technology
AOT Degree

Available: Shoals Campus
Advisors: E. Creekmore (5449) eric.creekmore@nwscc.edu
D. Carson (5449) d.carson@nwscc.edu

Students desiring to receive the AOT award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition .......................... 3
ENG 101 English Composition I or
ENG 130 Technical Writing...............................3

Area II: Humanities and Fine Arts ...................... 3

Area III: Natural Science and Mathematics .......... 6
A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 3 hours of degree creditable coursework may be taken from disciplines of biology, chemistry, physical science, physics, environmental technology.

Area IV: History, Social and Behavioral Sciences .... 3
Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.

General Education Core........................................... 15

Area V: Technical Concentration and Electives ...... 45
AUM 101 Fundamentals of Automotive Technology .... 3
AUM 112 Electrical Fundamentals ........................ 3
AUM 121 Braking Systems.................................... 3
AUM 122 Steering, Suspension and Alignment ......... 3
AUM 124 Automotive Engines ............................. 3
AUM 130 Drive Train and Axles ............................ 3
AUM 133 Motor Vehicle Air Conditioning ............... 3
AUM 162 Electrical and Electronic Systems .......... 3
AUM 224 Manual Transmission and Transaxle ....... 3
AUM 230 Auto Transmission and Transaxle ......... 3
AUM 239 Engine Performance ............................. 3
AUM 244 Engine Performance and Diagnostics ....... 3
AUM 246 Automotive Emissions .......................... 3
AUM 291 Co-Op............................................. 3
AUM Electives .................................................. 3

Minor Requirements
Auto Collision Repair ............................. 309999 AUR
ABR 114 Non-Structural Panel Replacement ........... 3
ABR 122 Surface Preparation ............................. 3
ABR Elective .................................................. 3
Total Minor Requirements ............................... 12

Minor Requirements
Machine Shop ........................................ 309999 AMT
MSP 101 Basic Machining Technology ................. 5
MSP 102 Intermediate Machining Technology ........ 5
MSP 121 Basic Blueprint Reading for Machinists .... 2
Total Minor Requirements ............................... 12

MSSC Certified Production Technician .......................... 309999 MSAU
ADM 291 MSS Safety Course ............................. 3
ADM 292 MSS Quality Practices and Measurement Course .................................................. 3
ADM 293 MSS Manufacturing Processes and Production Course ......................................... 3
ADM 294 MSS Maintenance Awareness ............... 3
Total Minor Requirements ............................... 12

General Education Core........................................... 15

Minor Requirements .............................................. 12

Technical Concentration and Electives ............... 45

Total Requirements for AOT Degree ...................... 72

*Computer competency skills are embedded within one or more courses required in this curriculum.

Automotive Service Technology
Career Certificate

Available: Shoals Campus
Advisors: E. Creekmore (5449) eric.creekmore@nwscc.edu
D. Carson (5449) d.carson@nwscc.edu

The Automotive Service Technology program offers students a curriculum that reflects current industry standards. The curriculum will provide students with the necessary experiences, including knowledge of all automatic systems, tools, and equipment, as well as proper troubleshooting and repair techniques, to become enjoyable in the automatic repair industry.

The Automotive Service Technology program will provide students the knowledge of workplace hazards so students will be able to work safely in the automatic industry, and will strive to instill in students in a professional work ethic so that employers will have the personnel who have the character quality and soft skills to meet their needs.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 English Composition or ENG 130 Technical Writing</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AUM 101 Fundamentals of Automotive Technology</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 112 Electrical Fundamentals</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 121 Braking Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 122 Steering, Suspension and Alignment</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 124 Automotive Engines</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 130 Drive Train and Axles</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 133 Motor Vehicle Air Conditioning</td>
<td>1</td>
<td>4</td>
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<tr>
<td>ABR 114 Non-Structural Panel Replacement</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
AUM 162 Electrical and Electronic Systems 1 4 3  
AUM 182 Special Topics 0 4 2  
AUM 212 Advanced Electrical and Electronic Systems 1 4 3  
AUM 220 Advanced Automotive Engines 1 4 3  
AUM 224 Manual Transmission and Transaxle 1 4 3  
AUM 230 Auto Transmission and Transaxle 1 4 3  
AUM 239 Engine Performance 1 4 3  
AUM 244 Engine Performance and Diagnostics 1 4 3  
AUM 246 Automotive Emissions 1 4 3  
**Total Semester Credit Hours** .............................................. 54  

*Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another school.  

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

**Automotive Service Technology** 470604 AUM  

**Basic Short-Term Certificate**  

Available: Shoals Campus  
Advisors: E. Creekmore (5449) eric.creekmore@nwscc.edu  
D. Carson (5449) d.carson@nwscc.edu  

This short-term certificate is designed to prepare students for employment in the automotive service industry. Emphasis is placed upon developing competency in diagnosing problems, inspecting, maintaining and repairing automobiles and light trucks. The increasing sophistication of automotive technology now requires workers who can use computerized shop equipment and work with electronic components, while maintaining their skills with traditional handtools.

Basic scientific principles and technical information are taught to give the student a better understanding of the cause of mechanical and electrical failures. The successful student will become skilled in making scientific diagnosis and performing necessary repairs and adjustments to the various systems of the automobile. Employers look for people with strong communication and analytical skills. Good reading, mathematics, and computer skills are needed to study technical manuals and keep abreast of new technology.

Graduates of Basic Auto Mechanics will be prepared to enter the automotive service industry as an entry level automotive technician.

This short-term certificate does not require a high school diploma or a GED certificate for admission. Students must be at least 16 years of age to enroll.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Theory</th>
<th>Lab</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 101</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 112</td>
<td>1</td>
<td>4</td>
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</tr>
<tr>
<td>AUM 121</td>
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<td>4</td>
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<tr>
<td>AUM 122</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 124 Automotive Engines</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 130 Drive Train and Axles</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 133 Motor Vehicle Air Conditioning</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 162 Electrical and Electronic Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong> .............................................. 24</td>
<td></td>
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</tbody>
</table>

*Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another school.

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

**Automotive Service Technology** 470604 AAS  

**Advanced Short-Term Certificate**  

Available: Shoals Campus  
Advisors: E. Creekmore (5449) eric.creekmore@nwscc.edu  
D. Carson (5449) d.carson@nwscc.edu  

This short-term certificate prepares students to use electronic service equipment and investigate the areas of specialization. A more intensive career preparation is provided through a combination of classroom instruction and hands-on practice. Curriculum is updated frequently to reflect changing technology and equipment. Knowledge of the basic principles of electronics and electrical systems is included in the program design for automotive service technicians. Successful graduates may become certified by Automotive Service Excellence (ASE) in specific service areas after 2 years of experience and passing a written examination. Completion of an automotive mechanic program in high school, vocational or community college may substitute for 1 year of experience.

Completion of Basic Auto Mechanics is recommended prior to enrollment in Advanced Auto Mechanics. A high school diploma or GED is not required for admission to this program. Students must be at least 16 years of age to enroll.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Theory</th>
<th>Lab</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 212 Advanced Electrical and Electronic Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 220 Advanced Automotive Engines</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 224 Manual Transmission &amp; Transaxle</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 230 Auto Transmission &amp; Transaxle</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 239 Engine Performance</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 244 Engine Performance and Diagnostics</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 246 Automotive Emissions</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 281 Special Topics</td>
<td>0</td>
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</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong> .............................................. 24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another school.

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.
Business Office Management
Associate in Applied Science Degree

This degree is designed for students who wish to seek employment upon completing the prescribed curriculum. Students who complete this degree will obtain the skills needed to function in or manage the modern office. Many of the courses in this program will transfer to four-year institutions business programs.

Available: Phil Campbell and Shoals Campuses
Advisors: T. McClinton (5212) mcclinton@nwscc.edu
D. South (5211) dsouth@nwscc.edu

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ........................................ 3
**ENG 101 English Composition I........................................ 3

Area II: Humanities and Fine Arts ................................ 3
Choose ONE course from among:
ENG 251 American Literature I
ENG 252 American Literature II
ENG 261 English Literature I
ENG 262 English Literature II
ENG 271 World Literature I
ENG 272 World Literature II
ART 100 Art Appreciation
MUS 101 Music Appreciation
PHL 106 Introduction to Philosophy
PHL 206 Ethics and Society
REL 100 History of World Religions
REL 151 Survey of the Old Testament
REL 152 Survey of the New Testament

Area III: Natural Sciences and Mathematics .................6-7
A minimum of 3 hours in MTH 116, MTH 100, or higher is required. The additional 3-4 hours of creditable coursework must be taken from the disciplines of biology, chemistry, physical science, physics, and environmental science.

Area IV: History, Social and Behavioral Science ............3
ECO 231 Principles of Macroeconomics OR
ECO 232 Principles of Microeconomics

General Education Core.............................................16-17

Area V: Technical Concentration and Electives...............51
CIS 146 Microcomputer Applications.............................3
*OAD 101 Beginning Keyboarding.....................................3
OAD 103 Intermediate Keyboarding..................................3
OAD 104 Advanced Keyboarding.....................................3
OAD 125 Word Processing.............................................3
*OAD 126 Advanced Word Processing...............................3
*OAD 130 Electronic Calculations...................................3
OAD 131 Business English............................................3
OAD 134 Career and Professional Development................3
OAD 135 Financial Record Keeping.................................3
OAD 137 Computerized Financial Record Keeping................3
OAD 138 Records/Information Management........................3
OAD 211 Medical Terminology........................................3
OAD 217 Office Management............................................3
OAD 218 Office Procedures............................................3
OAD 241 Office CO-OP...................................................3
BUS 215 Business Communicatons or OAD 133..................3

Choose from one of the technical concentrations listed below

Technical Concentration -
Business Management and Supervision 520401 BMS
BUS 275 Principles of Management..................................3
BUS 279 Small Business Management.................................3
*BUS 285 Principles of Marketing.....................................3
Total Concentration Requirements..................................9

Technical Concentration -
Computer Technology 520401 CTB
CIS 207 Intro. to Web Development....................................3
OAD 233 Trends in Office Technology or
OAD 231 Office Application............................................3
CIS 249 Microcomputer Operating Systems............................3
Total Concentration Requirements..................................9

Technical Concentration -
Accounting Technology 520401 BAT
BUS 241 Principles of Accounting I..................................3
BUS 242 Principles of Accounting II................................3
ACT 249 Payroll Accounting.............................................3
Total Concentration Requirements..................................9

General Education Core.............................................16

Technical Concentration and Electives..........................51

Technical Concentration.............................................9

Total Semester Credit Hours........................................76

*OAD 100 prerequisite required unless student has had at least one course of high school keyboarding. OAD elective may be substituted for OAD 101 if student has two years of high school keyboarding and a working knowledge of Microsoft Word or permission of instructor.

***Keyboarding skills are essential for the successful completion of English 101.

Business Office Management 520401 BOM
Career Certificate

Available: Phil Campbell and Shoals Campuses
Advisors: T. McClinton (5212) mcclinton@nwscc.edu
D. South (5211) dsouth@nwscc.edu

This certificate is designed to teach students the skills necessary to acquire and maintain a professional position in a business office. A high school diploma or GED certificate for admission is required.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

**ENG 101 English Composition I........................................3
MTH 116 Mathematical Applications or
MTH 100 Intermediate Algebra or Higher...........................3
CIS 146 Microcomputer Applications..................................3
Total General Education Requirements.............................9

Major Requirements
OAD 101 Beginning Keyboarding.....................................3
OAD 103 Intermediate Keyboarding..................................3
OAD 104 Advanced Keyboarding.....................................3
OAD 125 Word Processing.............................................3
*OAD 126 Advanced Word Processing...............................3
*OAD 130 Electronic Calculations...................................3
OAD 131 Business English............................................3
OAD 135 Financial Record Keeping.................................3
OAD 137 Computer Financial Record Keeping......................3
OAD 138 Records/Information Management........................3
OAD 217 Office Management............................................3
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CAREER TECHNICAL PROGRAMS
Northwest-Shoals Community College 2019-2020

OAD 218 Office Procedures ................................................. 3
BUS 215 Business Communications or OAD 133 ............... 3
Total Major Requirements ................................................. 39

Electives
Choose TWO:
OAD 134, *OAD 200, OAD 211, OAD 214, OAD 215, OAD 231
OAD 233, OAD 242, BUS 263, BUS 279, BUS 275, BUS 284,
CIS 147, CIS 249 ................................................................. 6
Total Semester Credit Hours ............................................. 54

*OAD 100 prerequisite required unless student has had at
least one course of high school keyboarding. OAD elective
may be substituted for OAD 101 if student has two years of
high school keyboarding and a working knowledge of Microsoft
Word or permission of instructor.

**Keyboarding skills are essential for the successful completion
of English 101.

Carpentry/Cabinetmaking
AOT Degree

Available: Shoals Campus
Advisors: T. Grisham (5236) titus.grisham@nwscc.edu

Students desiring to receive the AOT Award must complete all
major certificate courses, one minor certificate course of study,
and the required credit hours of general education courses in
Areas I, II, III, and IV. Upon completion of all the courses listed,
students are eligible to receive the Associate in Occupational
Technology Degree. Students desiring to take general educa-
courses for transfer to another institution should consult
an advisor for proper general education course selection.

Entering students are required to complete ORI 107.
Transfer students are exempt from this requirement.

Area I:  Written Composition ............................................. 3
ENG 101 English Composition I or
ENG 130 Technical Writing .................................................. 3
Area II:  Humanities and Fine Arts ....................................... 3
Area III: Natural Science and Mathematics .......................... 6
A minimum of 3 hours in MTH 116 or MTH 100
or Higher is required. The additional 3 hours of
degree creditable coursework may be taken
from disciplines of biology, chemistry, physical
science, physics, environmental technology.
Area IV:  History, Social and Behavioral Sciences ............ 3
Courses may be taken from the disciplines
of history, economics, geography, political
science, psychology, and sociology.

General Education Core ..................................................... 15
Area V:  Technical Concentration and Electives ............ 48
CAB 101 Introduction to Cabinetmaking .......................... 3
CAB 102 Introduction to Cabinetmaking .......................... 3
CAB 103 Sizes, Dimensions, Joints ................................. 3
CAB 104 Cabinet Shop Operation .................................... 3
CAB 110 Basic Safety Tools and Equipment ..................... 3
CAB 141 Wood Finishing ....................................................... 3
CAB 204 Cabinetmaking/Millwork .................................... 3
CAB 230 Estimating Costs in Cabinetmaking ................. 3
CAR 111 Construction Basics .............................................. 3
CAR 112 Floors, Walls, Site Prep ....................................... 3
CAR 113 Floors, Walls, Site Prep Lab ............................... 3
CAR 114 Construction Basics Lab ...................................... 3
CAR 121 Introduction to Blueprint .................................... 3
CAR 131 Roof and Ceiling Systems ................................. 3
CAR 132 Interior and Exterior Finish ............................... 3
CAR 133 Roof and Ceiling Systems Lab ....................... 3

Minor Requirements
Business Management and Supervision 309999  CBU
BUS 275 Principles of Management ........................... 3
BUS Electives ................................................................. 9
Total Minor Requirements ............................................. 12

Minor Requirements
Fall and Spring Semester
Welding 309999  CCW
WDT 108 SMAW Fillet/OFC ............................................. 3
WDT 109 SMAW Fillet/PAC/CAC ................................. 3
WDT 122 SMAW Fillet/OFC Lab .................................. 3
WDT 123 SMAW Fillet/PAC/CAC Lab ....................... 3
Total Minor Requirements ............................................. 12

Minor Requirements
Summer Semester
Welding 309999  CCW
WDT 110 Blue Print ......................................................... 3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory .... 3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab .... 3
WDT 219 Welding Inspection and Testing ...................... 3
Total Minor Requirements ............................................. 12

Minor Requirements
MSC Certified Production Technician 309999  MSCA
ADM 291 MSS Safety Course ............................................ 3
ADM 292 MSSC Quality Practices and Measurement
Course ................................................................. 3
ADM 293 MSSC Manufacturing Processes and
Production Course ................................................... 3
ADM 294 MSSC Maintenance Awareness ................... 3
Total Minor Requirements ............................................. 12

General Education Core ..................................................... 15
Technical Concentration and Electives ............. 48
Minor Requirements ......................................................... 12
Total Requirements for AOT Degree ................. 75

*Computer competency skills are embedded within one or
more courses required in this curriculum.

Carpentry/Cabinetmaking 460201  CAR
Career Certificate

Available: Shoals Campus
Advisors: T. Grisham (5236) titus.grisham@nwscc.edu

Carpentry/Cabinetmaking, using wood for construction and
repair, has been an important craft for centuries. These skills
are so important and versatile that they make up the largest
group of building trade workers.

Students are exposed to various areas of carpentry/cabinetmaking
such as safety, hand tools, blueprint reading, metric measures,
stair construction, floor framing, wall and ceiling framing, exterior
finish and various types of cabinet building.

Emphasis is placed on learning the true value of good
craftsmanship and how to apply this knowledge to benefit the
employee and employer. One of the main objectives of the
program is to develop the skills, attitudes and ethics needed
to become successfully employed.

Entering students are required to complete ORI 107.
Transfer students are exempt from this requirement.
CAREER TECHNICAL PROGRAMS

Northwest-Shoals Community College     2019-2020

12

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.**

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.**

**Advisors:**
T. Grisham (5236) titus.grisham@nwsc.edu

---

### Advanced Carpentry

**460201 AC**

**Short-Term Certificate**

Available: Shoals Campus

Students desiring to receive an advanced carpentry short-term certificate will have the opportunity to have a more in-depth study of carpentry in construction. Topics include construction blue prints, design of roof systems, interior and exterior materials (including but not limited to doors and windows, siding, masonry, and concrete).

Advanced Journeyman Carpenter must be able to perform any given task as it relates to carpentry. Carpenters must have eye-hand coordination, physical fitness, and a good sense of balance.

**Total Semester Credit Hours** ..............................................12

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### Cabinetmaking

**480703 CAB**

**Basic Short-Term Certificate**

Available: Shoals Campus

Advisors: T. Grisham (5236) titus.grisham@nwsc.edu

This Cabinetmaking short-term certificate prepares students with the skills and related technical knowledge necessary for employment as a woodworking craftsman. Topics include basic materials and processes. Uses and care of tools and equipment, safety, job planning and execution, and wood finishing techniques. Students are taught how to design, construct, and install interior casework.

Eye-hand coordination, manual dexterity and physical fitness, and a good sense of balance are important to have. The ability to solve math problems quickly and accurately is also helpful. To advance, cabinetmakers should be able to accurately estimate how long a job should take to complete and its cost.

**Total Semester Credit Hours** ..............................................12

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### Carpentry

**460201 BC**

**Basic Short-Term Certificate**

Available: Shoals Campus

Advisors: T. Grisham (5236) titus.grisham@nwsc.edu

This short-term certificate is designed to prepare students with carpentry skills and related technical knowledge needed for immediate employment in the carpentry profession. Emphasis is placed on safety, employability skills, and requirements for successful employment. Students learn to work from blueprints and instructions, preparing a layout by measuring, marking, and arranging materials. Hand and power tools are used to cut and shape various materials. The materials are joined with nails, screws, staples, or adhesives.

Carpenters may be involved in various kinds of construction activity, maintenance and installation work, repair work, manufacturing firms, government agencies, wholesale and retail establishments, and schools. Many carpenters are self-employed. It is important to acquire skills in all aspects of carpentry and to have flexibility to perform any kind of carpentry work.

Skilled carpenters need manual dexterity, eye-hand coordination, physical fitness, and a good sense of balance. Carpenters must be able to estimate how long a job should take to complete and its cost.

**Total Semester Credit Hours** ..............................................54

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**Total Semester Credit Hours** ..............................................12

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**Total Semester Credit Hours** ..............................................12
### Advanced Cabinetmaking

**480703 ACM**

**Short-Term Certificate**

Available: Shoals Campus
Advisors: T. Grisham (5236) titus.grisham@nwscc.edu

Students who have completed the basic cabinetmaking short-term certificate can pursue an advanced cabinetmaking short-term certificate. Students desiring to take this avenue will have a more in-depth study of cabinetmaking. Topics include advanced materials and exotic woods, shop organization and tool acquisition. Upon completion of this certificate students will be able to figure costs of material and labor and the use of pertinent formulas.

Hand-eye coordination, manual dexterity and physical fitness, are very important to have. The ability to solve math problems quickly and accurately is also very important. Als, a student become a fast safe worker.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAB 102 Introduction to Lumber and Wood Products</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAB 104 Cabinet Shop Operations</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAB 141 Woodfinishing</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAB 230 Estimating Costs in Cabinetmaking</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td></td>
<td></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

### Chemical Laboratory Technician

**410301 CHM**

**Short-Term Certificate**

Available: Phil Campbell and Shoals Campuses
Advisors: C. Sockwell (5378) sockwell@nwscc.edu

The Chemical Laboratory Technician short-term certificate emphasizes chemistry and mathematics. The holder of this certificate will have completed 8 semester hours of chemistry and will be exposed to many different areas of chemistry. These areas include fundamental concepts of chemistry, chemical equations and reaction, stoichiometry, thermochemistry, atomic structure, general concepts of chemical bonding, Valence Bond Theory, Molecular Orbital Theory, chemistry of gases and kinetic theory, acids and bases, chemical equilibrium, and chemical thermodynamics. The material covered in the courses, along with skills developed in the laboratory, prepares the student for a wide range of employment possibilities, from industrial laboratories to environmental testing.

For those students who wish to continue their education, these courses are transferable.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 103 Principles of Biology I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CHM 111 College Chemistry I</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112 College Chemistry II</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>**ENG 101 English Composition I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ENG 130 Technical Report Writing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 100 Intermediate College Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 112 Precalculus Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 115 Elementary Statistics</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td></td>
<td></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

**Notes:**
- Keyboarding skills are essential for the successful completion of English 101.
- Total hours include general education core, technical concentration and electives, and practical experience.

### Child Development

**190708 CHD**

**Associate in Applied Science Degree**

Available: Phil Campbell and Shoals Campus
Advisors: D. Durduuni (5450) durduuni@nwscc.edu

This degree is designed to prepare students for employment as teachers or directors in public or private preschool programs, as Head Start teachers or teacher aides, or as teacher assistants in Alabama Pre-K programs in public or private schools. Courses in this program extend beyond the Alabama State Minimum Standards qualifications for directors, program directors, and preschool teachers in licensed child care facilities.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

| Area I: Written Composition                                          | 6     |
| **ENG 101 English Composition I**                                    | 3     |
| ENG 102 English Composition II                                       | 3     |
| **Area II: Humanities and Fine Arts**                               | 6     |
| SPH 107 Fundamentals of Public Speaking                             | 3     |
| **Fine Arts Elective Choose ONE from among:**                       |       |
| ART 100 Art Appreciation                                            | 3     |
| MUS 101 Music Appreciation                                          | 3     |
| PHL 106 Introduction to Philosophy                                  | 3     |
| PHL 206 Ethics and Society                                          | 3     |
| REL 100 History of World Religions                                  | 3     |
| REL 151 Survey of the Old Testament                                | 3     |
| REL 152 Survey of the New Testament                                | 3     |
| SPA 101 Introductory Spanish I                                      | 3     |
| **Area III: Natural Sciences and Mathematics**                      | 11    |
| MTH 116 Mathematical Applications                                  | 3     |
| MTH 100 Intermediate College Algebra                               | 3     |
| MTH 110 Finite Mathematics                                          | 3     |
| MTH 112 Precalculus Algebra                                         | 3     |
| BIO 101 Introduction to Biology OR                                  | 4     |
| BIO 102 Introduction to Biology II OR                               | 4     |
| BIO 103 Principles of Biology I OR                                  | 4     |
| BIO 104 Principles of Biology II OR                                 | 4     |
| PHS 111 Physical Science                                             | 4     |
| **Area IV: History, Social and Behavioral Science**                 | 6     |
| PSY 200 General Psychology                                          | 3     |
| SOC 200 Introductory Sociology                                      | 3     |
| **Area V: Technical Concentration and Electives**                   | 39    |
| CIS 146 Microcomputer Applications                                  | 3     |
| CIS 274 Marriage and the Family                                      | 3     |
| CHD 100 Introduction to Early Care and Education of Children        | 3     |
| CHD 201 Child Growth and Development                               | 3     |
| CHD 202 Creative Experiences for Young Children                    | 3     |
| CHD 203 Children’s Language Development and Literature             | 3     |
| CHD 204 Methods and Materials for Teaching Young Children          | 3     |
| CHD 205 Program Planning for Young Children                        | 3     |
| CHD 206 Health, Safety, and Nutrition                              | 3     |
| CHD 208 Administration of Child Development Programs               | 3     |
| CHD 209 Infant and Toddler Education Programs                      | 3     |
| CHD 210 Educating Exceptional Young Children                       | 3     |
| CHD 215 Supervised Practical Experience                            | 3     |
**Keyboarding skills are essential for the successful completion of English 101.**

### Child Development

190708 CHD

**Short-Term Certificate**

Available: Phil Campbell and Shoals Campus

Advisors: D. Durunji (5450) durunji@nwscc.edu

This short-term certificate is designed to prepare students for employment in preschool programs. Emphasis is upon developing competency in guiding the experience of preschool children. Graduates may be employed as teachers or directors in private and public preschool programs and as aides in Head Start.

Classes in this plan are designed to meet the Alabama state minimum standard qualifications for a director, program director, and teacher in a licensed child care center. This short-term certificate program offers the student background knowledge of all stages of child growth and development; training and practical experience in conducting all types of learning activities with children; knowledge and application of techniques in positive guidance and discipline, health, safety, and first aid practices; and a basic knowledge of the state minimum standards for daycare centers and homes.

Any person who is interested in the field or desires to enhance his or her knowledge in child care work and has a high school diploma or GED will be eligible for this short-term certificate.

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD 201 Child Growth and Development Principles</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>CHD 202 Children's Creative Experiences</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>CHD 203 Children's Literature and Language Development</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>CHD 204 Methods and Materials for Teaching Children</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>CHD 205 Program Planning for Educating Young Children</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>CHD 206 Children's Health and Safety</td>
</tr>
<tr>
<td>Theory</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td><strong>CHD Electives</strong></td>
</tr>
<tr>
<td><strong>Theory</strong></td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

**Choose from the following courses**

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHD 100 Introduction to Early Care and Education</td>
</tr>
<tr>
<td>CHD 208 Administration of Child Development Programs</td>
</tr>
<tr>
<td>CHD 209 Infant and Toddler Education Programs</td>
</tr>
<tr>
<td>CHD 210 Educating Exceptional Young Children</td>
</tr>
<tr>
<td>CHD 214 Families and Communities in Early Care</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours**

- **General Education Core**
  - Written Composition
  - Humanities and Fine Arts
  - Total Semester Credit Hours

Available: Shoals Campus

Advisors: T. Roberson (5276) roberson@nwscc.edu, S. Chandler (5234) schandler@nwscc.edu, J. James (6234/5346) jamesj@nwscc.edu

Northwest-Shoals Community College offers AAS Degrees in Computer Information Systems Technology that prepare the graduate to go right to work upon graduation. The options are: Cyber Security and Software Development. These options emphasize different areas of information technology, but both include experience in several programming languages and office applications. The CIS curriculum is updated upon recommendations of business/industry representatives.

Graduates of both options will have utilized the Test-Out system to practice on virtual computer hardware from anywhere as well as a physical lab on campus for hands-on computer hardware and software experience. All graduates have advanced knowledge and experience with Microsoft Office.

Graduates of the Cyber Security Option have the skills to repair and rebuild computer hardware, set up and configure computer systems and networks, and secure networks and infrastructure against threats, including mitigating the effects of a security breach. The Security portion of this degree incorporates computer and infrastructure security, so graduates are trained in ethical hacker techniques, including those against hardware devices like Programming Logic Controllers (PLCs), which are utilized in Industrial Control Systems.

Graduates of the Software Development Option have experience developing software for the Microsoft Windows platform, the Android and Apple mobile platforms, the web, and the IBM Power System. The Swift programming language is used for Apple App development. A Mac lab has been established on campus so that students can write the Apple Swift programs. The lab includes iPods and mini iPads for testing purposes. Students also have access to their own virtual IBM Power System that they can access from anywhere courtesy of the IBM Academic Initiative. Students taking this option are also exposed to networking and maintenance techniques. Graduates are trained via Net Lab to practice ethical hacking techniques.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

### Cyber Security Option

110101 CSO

**Area I: Written Composition**

- **Area II: Humanities and Fine Arts**
  - **Choose ONE course from among**
    - ART 100 Art Appreciation
    - MUS 101 Music Appreciation
    - PHL 106 Introduction to Philosophy
    - PHL 206 Ethics and Society
    - REL 100 History of World Religions
    - REL 151 Survey of the Old Testament
    - REL 152 Survey of the New Testament

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Area III: Natural Sciences and Mathematics

MTH 116 Mathematical Applications

Choose ONE Natural Science Course:
- Biological Science, Chemistry, Environmental Science, Physics, or Physical Science

Area IV: History, Social and Behavioral Science

Choose ONE course from among:
- HIS 101 Western Civilization I
- HIS 102 Western Civilization II
- HIS 201 United States History I
- HIS 202 United States History II
- ECO 231 Principles of Macroeconomics
- ECO 232 Principles of Microeconomics
- GEO 100 World Regional Geography
- POL 211 American National Government
- PSY 200 General Psychology
- SOC 200 Introduction to Sociology

General Education Core

Area V: Technical Concentration and Electives

CIS 146 Microcomputer Applications

Choose ONE course from among:
- CIS 147 Advanced Microcomputer Applications
- CIS 148 Post Advanced Microcomputer Application
- CIS 157 Introduction to App Develop. with Swift
- CIS 199 Network Communication
- CIS 202 Python Programming
- CIS 205 Control Language and Utilities Applications
- CIS 214 Security Analysis
- CIS 220 App Development with Swift
- CIS 227 App Development with Swift II
- CIS 245 Cyber Defense
- CIS 246 Ethical Hacking
- CIS 249 Microcomputer Operating Systems
- CIS 251 C++ Programming
- CIS 255 JAVA Programming
- CIS 263 Computer Maintenance
- CIS 280 Network Security
- CIS 297 CO-OP

General Education Core

Technical Concentration and Electives

Total Semester Credit Hours

Software Development Option

**This course is offered only in the summer**

Area I: Written Composition

**This course is offered only in the spring**

Area II: Humanities and Fine Arts

Fine Arts Elective: Choose ONE from among:
- ART 100 Art Appreciation
- MUS 101 Music Appreciation
- PHL 106 Introduction to Philosophy

Other Electives from Computer Science, Business, or Mathematics

**This course is offered only in the fall and summer**

Entering students must complete ORI 107. Transfer students are exempt from this requirement.
Computer Technology
Cyber Security Technician Short-Term Certificate

Available: Shoals Campus
Advisors: T. Roberson (5276) roberson@nwscc.edu
S. Chandler (5234) schandler@nwscc.edu
J. James (6234/5346) jamesje@nwscc.edu

Almost all businesses today utilize microcomputers in their operations, whether they are large or small businesses. The investment they have made in microcomputers requires ongoing maintenance and security. The need for qualified technicians is continually expanding. These technicians need to know how to diagnose, configure, install, upgrade, and secure industry standard microcomputers. This program is designed to provide the skills needed to become employed as a Cyber Security Technician.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Semester Hours
****CIS 146 Microcomputer Applications........................3
CIS 157 Intro to App Development with Swift...................3
*CIS 199 Network Communications................................3
**CIS 214 Security Analysis.......................................3
***CIS 245 Cyber Defense..........................................3
*CIS 246 Ethical Hacking............................................3
*****CIS 249 Microcomputer Operating Systems................3
**CIS 263 Computer Maintenance..................................3
***CIS 280 Network Security.......................................3

Total Semester Credit Hours........................................27

*These courses are offered only in the summer.
** These courses are offered only in the spring.
*** These courses are offered only in the fall.

Microcomputer Applications Short-Term Certificate

Available: Shoals Campus
Advisors: T. Roberson (5276) roberson@nwscc.edu
S. Chandler (5234) schandler@nwscc.edu
J. James (6234/5346) jamesje@nwscc.edu

The Microcomputer Applications Short-Term Certificate verifies that the graduate completed Introductory, Intermediate, and Advanced problems in four Microsoft Office applications. Those applications include Word, Excel, Access, and PowerPoint. SAM is the simulation software that is utilized in each class so students have a real-world scenario. The introductory class should prepare the student to pass the Entry Level MOS certification exams. The additional classes should assist the students in passing the Expert Level MOS certification exams. In addition, Cyber Security is introduced in the introductory class. A Windows class is also included in the requirements for this certificate.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Semester Hours
CIS 146 Microcomputer Applications..................................................3
**CIS 147 Advanced Microcomputer Applications.................................3
*CIS 148 Post Advanced Microcomputer Applications.........................3
CIS 249 Microcomputer Operating Systems.........................................3

Total Semester Credit Hours.........................................................12
*These courses are offered only in the summer.
** These courses are offered only in the spring.
*** These courses are offered only in the fall.

Swift Programming Short-Term Certificate

Available: Shoals Campus
Advisors: T. Roberson (5276) roberson@nwscc.edu
S. Chandler (5234) schandler@nwscc.edu
J. James (6234/5346) jamesje@nwscc.edu

The Swift Programming Short-Term Certificate verifies that the student completed three courses in Swift Ap Development (app development for iOS systems). Students are provided a lab of MAC computers for app development. They are also provided iPad minis and iPods for testing purposes. The additional required course is either Java or Python, two of the most popular programming languages in current use.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Semester Hours
CIS 157 Introduction to App Development with Swift.........................3
*CIS 202 Python Programming OR
***CIS 255 JAVA Programming..................................................3
CIS 220 App Development with Swift...........................................3
CIS 227 App Development with Swift II........................................3

Total Semester Credit Hours.......................................................12
*These courses are offered only in the summer.
** These courses are offered only in the spring.
*** These courses are offered only in the fall.

Computer Technology Software Technician Short-Term Certificate

Available: Shoals Campus
Advisors: T. Roberson (5276) roberson@nwscc.edu
S. Chandler (5234) schandler@nwscc.edu
J. James (6234/5346) jamesje@nwscc.edu

The rapid expansion of microcomputer systems in all phases of business operations has generated a demand for knowledgeable technicians who can install, upgrade, service, and support industry standard software for microcomputers. This program will train the student to use PC operating systems, word processing, spreadsheets, database, and other related software tools which are commonly used in business.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Semester Hours
****CIS 146 Microcomputer Applications........................................3
**CIS 147 Advanced Microcomputer Applications..............................3

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**CIS 148 Post Advanced Microcomputer Applications** .................................................. 3
CIS 157 Introduction to App Development with Swift .................................................. 3
**CIS 202 Python Programming or CIS 255 Java** .................................................. 3
**CIS 205 Control Language & Utility Applications** .................................................. 3
CIS 220 App Development with Swift I ........................................................................ 3
CIS 227 App Development with Swift II ........................................................................ 3
****CIS 249 Microcomputer Operating Systems** .................................................. 3

Total Semester Credit Hours ..................................................................................... 27

*These courses are offered only in the summer.
** These courses are offered only in the spring.
*** These courses are offered only in the fall.
**** CIS 249 satisfies the written communication proficiencies for Area I. Course is offered only in the fall and in the summer.
***** CIS 146 satisfies the mathematics proficiencies for Area III.

**Keyboarding skills are essential for the successful completion of CIS classes.

Criminal Justice 430107 CRJ

Associate in Applied Science Degree

Available: Phil Campbell and Shoals Campuses
Advisor: K. Tucker (8060) ktucker@nwscc.edu
K. Brackins (6242) kbrackins@nwscc.edu

This degree is designed for students entering into Criminal Justice careers, particularly for those interested in law enforcement. Although many of the courses in this career program may transfer to four-year institutions, this program is not designed for transfer. This program does not include many courses that four-year institutions require in their general education program.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition .................................................. 6
**ENG 101 English Composition I** .................................................. 3
ENG 102 English Composition II .................................................. 3

Area II: Humanities and Fine Arts .................................................. 6
SPH 107 Fundamentals of Public Speaking .................................................. 3
Humanities or Fine Arts Elective:

Choose ONE from among: .................................................. 3

ENG 251 American Literature I
ENG 252 American Literature II
ENG 261 English Literature I
ENG 262 English Literature II
ART 100 Art Appreciation
MUS 101 Music Appreciation
PHL 106 Introduction to Philosophy
PHL 206 Ethics and Society
REL 100 History of World Religions
REL 151 Survey of the Old Testament
REL 152 Survey of the New Testament
SPA 101 Introductory Spanish I

Area III: Natural Sciences and Mathematics .................................................. 7
MTH 116 Mathematical Applications .................................................. 3
Choose from the natural sciences: Biology, Chemistry, Environmental Science, Physical Science, and Physics .................................................. 4

Area IV: History, Social and Behavioral Science .................................................. 6
POL 211 American Government or U.S. History .................................................. 3
PSY 200 General Psychology .................................................. 3

General Education Core .................................................. 36

Total Semester Credit Hours .................................................. 62

Criminal Justice Courses are offered on the Phil Campbell campus depending on student demand.

*Students who have successfully completed the Police Academy (as established by the Alabama Police Officers and Training Commission) may be given credit for CRJ 110 and CRJ 116 with the approval of the CRJ advisor.

**Keyboarding skills are essential for the successful completion of English 101.

Design Engineering 151301 D&D

Technology

Associate in Applied Science Degree

Available: Shoals Campus
Advisor: A. Rice (5257) arice@nwscc.edu

Design Engineering prepares students for the manufacturing and construction industry. Today, the drafter is a highly skilled technician with an ability to visualize objects three dimensionally before they are physically created. By using traditional manual tools or computer assisted methods, the drafter creates drawings that describe the shape and size of the product or project.

Design Engineering instruction at the College is offered in fundamental, intermediate, and advanced levels of drafting and design. Advanced courses train students for the development of drawings in mechanical and architectural design. Related studies prepare the student academically in mathematics, physics, psychology, and English.

A graduate of the program will be generally qualified to enter the industry as an entry level draftsman, detailer, or apprentice designer. Graduates are encouraged to continue education toward a professional degree in engineering or architecture.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition .................................................. 6

**ENG 101 English Composition I** .................................................. 3
*ENG 130 Technical Report Writing .................................................. 3

Area II: Humanities and Fine Arts .................................................. 3

Humanities or Fine Arts Elective:

Choose ONE from among: .................................................. 3

ENG 251 American Literature I
ENG 252 American Literature II
ENG 261 English Literature I
ENG 262 English Literature II
ART 100 Art Appreciation
### CAREER TECHNICAL PROGRAMS
Northwest-Shoals Community College     2019-2020

#### General Education Core

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: English</td>
<td>ENG 101</td>
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<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Area II: Math and Science</td>
<td>PHY 202</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Area III: Social and Behavioral Science</td>
<td>PSY 200</td>
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<td>3</td>
</tr>
<tr>
<td>Area IV: Natural Sciences and Mathematics</td>
<td>PHY 211</td>
<td>4</td>
<td>0</td>
<td>4</td>
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<tr>
<td>Area V: Technical Concentration and Electives</td>
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<td></td>
<td>Total Semester Credit Hours</td>
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#### Design Engineering Technology Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
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<td>Intro to Technical Drawing</td>
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<td>Intermediate Computer Aided Drafting and Design</td>
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<td>4</td>
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<td>DDT 128</td>
<td>Intermediate Technical Drawing</td>
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<td>Machine Drafting Basics</td>
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<td>DDT 132</td>
<td>Architectural Drafting</td>
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<td>Descriptive Geometry</td>
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<td>Special Topics - Work Ethics</td>
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<td>DDT 220</td>
<td>Advanced Technical Drawing</td>
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<td>Advanced CAD</td>
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<td>DDT 233</td>
<td>Solids Modeling</td>
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<td>Co-Op</td>
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<td>DDT 130</td>
<td>Fundamentals of Drafting for Related Trades</td>
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<td>DDT 133</td>
<td>Basic Surveying</td>
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<td>DDT 139</td>
<td>Fundamentals of Drafting for Related Trades Lab</td>
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<td>DDT 150</td>
<td>Theory of Residential Drawing and Design</td>
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<td>DDT 182</td>
<td>Special Topics in Design Engineering Technology</td>
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<td>DDT 212</td>
<td>Intermediate Architectural Drafting</td>
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<tr>
<td>DDT 213</td>
<td>Civil Drafting, Plat Maps</td>
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<tr>
<td>DDT 214</td>
<td>Pipe Drafting</td>
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<td>DDT 215</td>
<td>Geometric Dimensioning and Tolerancing</td>
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<td>DDT 217</td>
<td>Building Codes, Ordinances, Zoning Restrictions</td>
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<td>DDT 222</td>
<td>Advanced Architectural Drafting</td>
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<td>DDT 224</td>
<td>Structural Concrete Drafting</td>
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<td>DDT 225</td>
<td>Structural Steel Drafting</td>
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<td>DDT 226</td>
<td>Technical Illustration</td>
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<td>DDT 228</td>
<td>Geographic Information Systems</td>
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<td>DDT 232</td>
<td>CAD Customization</td>
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<td>DDT 234</td>
<td>3D Graphics and Animation</td>
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<td>DDT 235</td>
<td>Specialized CAD</td>
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<td>Design Project</td>
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<td>DDT 237</td>
<td>Current Topics in CAD</td>
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<td>DDT 238</td>
<td>Special Topics in CAD</td>
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<td>DDT 239</td>
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<td>DDT 250</td>
<td>Theory of Commercial Drafting and Design</td>
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<td>DDT 255</td>
<td>Drawing for Commercial Construction</td>
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<tr>
<td>DDT 290</td>
<td>Survey of Aerospace Technology</td>
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<tr>
<td>CIS 146</td>
<td>Microcomputer Application</td>
<td></td>
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</tr>
</tbody>
</table>

#### Design Engineering Technology

**Computer Aided Short-Term Certificate**

Available: Shoals Campus
Advisor: A. Rice (5257) rice@nwsccl.edu

This short-term certificate is open to drafting and design industry personnel with a minimum of one year experience in manual drafting, design, or engineering. The program provides upgrade training in the use of computer aided drafting and design (CADD) technology.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDT 104</td>
<td>Basic Computer Aided Drafting and Design</td>
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<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DDT 127</td>
<td>Intermediate Computer Aided Drafting and Design</td>
<td>1</td>
<td>4</td>
<td>3</td>
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<tr>
<td>DDT 231</td>
<td>Advanced CAD</td>
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<tr>
<td>DDT 133</td>
<td>Drafting and Design Elective</td>
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<td>X</td>
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</tbody>
</table>

#### Electrical Technology

**Note:** Two Drafting electives totaling 6 semester hours are required. Students should consult with advisor concerning other possible electives from other program areas.

---

**MUS 101 Music Appreciation**
**PHL 106 Introduction to Philosophy**
**PHL 206 Ethics and Society**
**REL 100 History of World Religions**
**REL 151 Survey of the Old Testament**
**REL 152 Survey of the New Testament**
**SPA 101 Introductory Spanish I**
AOT Degree

Available: Shoals Campus
Advisors: R. Morris (5244) raymorris@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

Students desiring to receive the AOT Award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ................................. 3
ENG 101, English Composition I or
ENG 130, Technical Writing

Area II: Humanities and Fine Arts ......................... 3

Area III: Natural Science and Mathematics ............... 6
A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 3 hours of degree creditable coursework may be taken from disciplines of biology, chemistry, physical science, physics, environmental technology.

Area IV: History, Social and Behavioral Sciences ......... 3
Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.

General Education Core.......................................15

Area V: Technical Concentration and Electives...........45

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
<td>ELT 108 DC Fundamentals</td>
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<tr>
<td>ELT 109 AC Fundamentals</td>
<td>1</td>
<td>6</td>
<td>3</td>
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<tr>
<td>ELT 110 Wiring Methods</td>
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<td>6</td>
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</tr>
<tr>
<td>ELT 114 Residential Wiring Methods</td>
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<td>ELT 115 Residential Wiring Methods II</td>
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<td>ELT 117 AC/DC Machines</td>
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<td>ELT 131 Commercial/Industrial Wiring I</td>
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<td>ELT 209 Motor Control I</td>
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<td>3</td>
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<tr>
<td>ELT 212 Motor Control II</td>
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<td>3</td>
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<td>ELT 231 Programmable Controls I</td>
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<td>ELT 232 Programmable Controls II</td>
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<td>ELT 241 National Electrical Code</td>
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<td>ELT 242 Journeyman Master Prep Exam</td>
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<td>ELT 244 Conduit Bending and Installation II</td>
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Minor Requirements

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<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
<td>ACR 111 Refrigeration Principles</td>
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<td>ACR 112 HVACR Service Procedures</td>
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<td>ACR 113 Refrigeration Piping Practices</td>
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<td>ACR 126 Commercial Heating Systems</td>
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<td>ACR 132 Residential Air Conditioning Systems</td>
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<td>ACR 209 Commercial Air Conditioning Systems</td>
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</tbody>
</table>

Total Minor Requirements .....................................12

Electrical Technology

Career Certificate

Available: Shoals Campus
Advisors: R. Morris (5244) raymorris@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

The increased use of electricity and society’s dependence upon it has created a vast number of occupational opportunities for the trained electrical technician. Great strides have been made in every line of electrical development. The increased use of automation in industrial plants has increased the need for trained industrial electricians. The Electrical Technology Program is designed to fulfill the needs of a demanding industry. The course includes electrical fundamentals, equipment and machine installation, maintenance and troubleshooting of motors, transformers and industrial controls, wiring methods, modern control methods, hydraulic, pneumatic, and electro-mechanical systems. The future brings increased demand for electricians who possess the skills of the trade and a working knowledge of the principles of electricity. The length of the curriculum is 4 semesters full-time day, or full-time night.

All entering students are required to complete ORI 107 unless transferred from another university or college.

Area I: Written Composition.................................3
ENG 100 English Composition I OR
ENG 130 Technical Writing.................................3

Area III: Natural Science and Mathematics..............3
A minimum of 3 hours in MTH 116 or MTH 100

General Education Core.....................................7

Area V: Technical Concentration and Electives.........45

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
<td>ELT 108 DC Fundamentals</td>
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<td>ELT 109 AC Fundamentals</td>
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<tr>
<td>ELT 110 Wiring Methods</td>
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<td>ELT 114 Residential Wiring Methods</td>
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<td>ELT 115 Residential Wiring Methods II</td>
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<tr>
<td>ELT 117 AC/DC Machines</td>
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<td>ELT 231 Programmable Controls I</td>
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<td>ELT 242 Journeyman Master Prep Exam</td>
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<tr>
<td>ELT 244 Conduit Bending and Installation II</td>
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<tr>
<td>ELT 291 Co-Op</td>
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ELT 131 Commercial/Industrial Wiring I 2 3 3
ELT 209 Motor Control I 1 6 3
ELT 212 Motor Control II 2 3 3
ELT 231 Programmable Controls I 2 3 3
ELT 232 Programmable Controls II 2 3 3
ELT 241 National Electrical Code 3 0 3
ELT 242 Journeyman Master Prep Exam 3 0 3
ELT 244 Conduit Bending and Installation 2 3 3
ELT 291 CO-OP 0 3 3

General Education Core ................................................. 7
Technical Concentration and Electives .............................. 45
Total Credit Hour Requirements ........................................ 52

*Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.
*Contact hours are not shown for electives since they may vary and combine both theory and lab.
*Computer competency skills are embedded within one or more courses required in this curriculum.

An articulation agreement is in place between the College and North Alabama Electrical Joint Apprenticeship and Training Committee (IBEW) to award credit for the electrical training completed through the apprenticeship program at the IBEW as part of an Associate in Occupational Technology (AOT) degree in Electrical Technology. Students will be required to complete 18 hours in general education coursework and 12 hours of minor coursework in an approved minor program. Please contact Tim Maupin at 256.331.5247 for additional information.

**Electrical Technology** 460302 ETCO

**Commercial Technician Short-Term Certificate**

Available: Shoals Campus
Advisors: R. Morris (5244) raymorrison@nwsc.edu
T. Maupin (5247) tmaupin@nwsc.edu

This short-term certificate is for students who want to gain knowledge and credentialing in the Commercial Wiring Industry. The courses are a study of commercial electrical wiring practices and methods, the NEC requirements and commercial blueprint interpretations. Courses include hands-on work, load calculations, ampacity, 3-phrase, and color codes.

**Semester Hours**
ELT 131 Commercial/Industrial Wiring I ..............................3
ELT 117 AC/DC Machines ...............................................3
ELT 244 Conduit Bending and Installation .........................3
ELT 241 National Electrical Code ....................................3
Total Semester Credit Hours ...........................................12

**Biomedical Equipment Technology Short-Term Certificate**

Available: Shoals Campus
Advisor: J. Rogers (8088) jeffreyrogers@nwsc.edu

This advanced certificate, in addition to the Electronics Technology Associate in Applied Science Degree, will prepare the student for employment in both the medical and industrial settings as biomedical equipment technicians. The increasing complexity of biomedical equipment demands the availability of highly skilled technicians, knowledgeable in the theory of application, underlying physiological principles, and safe application of biomedical equipment. To enter this certificate program, the student must have program advisor approval and have satisfactorily completed the requirements for the Electronics Technology AAS Degree at the College.

**Electrical Technology Residential Technician Short-Term Certificate**

Available: Shoals Campus
Advisors: R. Morris (5244) raymorrison@nwsc.edu
T. Maupin (5247) tmaupin@nwsc.edu

This short-term certificate is for students who want to gain knowledge and employment in the Residential Industry. The courses are a study of residential wiring practices and methods, the NEC requirements, and residential blueprint interpretations. Courses include hands-on work, print layout, and service calculations.

**Semester Hours**
ELT 114 Residential Wiring Methods I .............................3
ELT 115 Residential Wiring Methods II ............................3
ELT 108 DC Fundamentals or INT 101 DC Fundamentals ...3
ELT 110 Wiring Methods ...............................................3
Total Semester Credit Hours ..........................................12

**Electrical Technology Industrial Technician Short-Term Certificate**

Available: Shoals Campus
Advisors: R. Morris (5244) raymorrison@nwsc.edu
T. Maupin (5247) tmaupin@nwsc.edu

This short-term certificate is for students to gain knowledge and credentialing in the Industrial Electrical Industry. These courses are a study of industrial wiring practices and methods, the NEC requirements, and industrial schematic interpretations.

**Semester Hours**
ELT 209 Motor Controls I or INT 113 Industrial Motor Control I ..................3
ELT 212 Motor Controls II .............................................3
ELT 231 Programmable Controls I or INT 184 Intro to Programmable Logic Controllers ..................3
ELT 232 Programmable Controls II or I NT 284 Advanced Programmable Logic Controllers ........3
Total Semester Credit Hours ..........................................12
Environmental Health and Safety Technician
150507 EVT
Associate in Applied Science Degree

Available: Shoals Campus
Advisors: C. Eubanks (5293) eubanks@nwscc.edu

This degree is designed to prepare students for employment as Environmental, Health and Safety Technicians. Students will be trained in the use and application of environmental technology, as well as the management and support of industrial safety processes. Also see the A.S. degree program.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition ........................................... 6
   **ENG 101 English Composition I ..................................3
   *ENG 130 Technical Report Writing ..............................3

Area II: Humanities and Fine Arts .................................. 6
   *Speech Elective ......................................................3
   Fine Arts Elective:
   Choose ONE from among: .........................................3
   ART 100 Art Appreciation
   MUS 101 Music Appreciation
   PHL 106 Introduction to Philosophy
   PHL 206 Ethics and Society
   REL 100 History of World Religions
   REL 151 Survey of the Old Testament
   REL 152 Survey of the New Testament
   SPA 101 Introductory Spanish I

Area III: Natural Sciences and Mathematics .................... 11
   MTH 100 Intermediate College Algebra ........................3
   BIO 103 Principles of Biology I ...............................4
   BIO 201 Human Anatomy and Physiology I ..........4

Area IV: History, Social and Behavioral Science ............. 3
   History, Social and Behavioral Science Electives:
   Choose one from among: ...........................................3
   HIS 101 Western Civilization I
   HIS 102 Western Civilization II
   HIS 201 United States History I
   HIS 202 United States History II
   ECO 231 Principles of Macroeconomics
   ECO 232 Principles of Microeconomics
   GEO 100 World Regional Geography
   POL 100 American National Government
   PSY 200 General Psychology
   SOC 200 Introduction to Sociology
   SOC 247 Marriage and Family
   SOC 210 Social Problems

General Education Core ..............................................27

Area V: Technical Concentration and Electives ............. 44
   CHM 104 Introduction to Inorganic Chemistry .................4
   CHM 105 Introduction to Organic Chemistry .................4
   CIS 146 Microcomputer Applications .......................3
   EVT 101 Introduction to Environmental Science and Technology OR PHS 120 Environmental Science ................................................4
   EVT 105 Introduction to Occupational Safety and Health .............................................3
   EVT 107 Environmental Health and Safety Assessments and Reporting ..........................3
   EVT 110 Introduction to Environmental Laws and Regulations ........................................3
   EVT 201 Environmental Internship I ...............................3
   EVT 210 Environmental Sampling and Analysis ................4
   EVT 220 Toxicology ..................................................3
   EVT 250 Hazardous Waste Operations and Emergency Response ........................................4
   EVT 260 Introduction to Industrial Hygiene ..........................3
   EVT 280 Hazardous Materials Management ......................3

General Education Core ..............................................27

Technical Concentration .............................................44

Total Semester Credit Hours .......................................71

* Students planning to transfer should take ENG 102 and SPH 107.

**Keyboarding skills are essential for the successful completion of English 101.

Environmental Health and Safety Technician
150507 EHS Short-Term Certificate

Available: Shoals Campus
Advisor: C. Eubanks (5293) eubanks@nwscc.edu

This short-term certificate is designed to prepare students for employment as Environmental, Health and Safety Technicians. Also, see the A.S. & A.A.S. Degree Programs.

Theory Lab Hours
CHM 104 Introduction to Inorganic Chemistry 3 3 4
EVT 101 Introduction to Environmental Science and Technology OR PHS 120 Environmental Science 3 2 4
EVT 105 Introduction to Occupational Safety and Health 3 0 3
EVT 107 Environmental Health and Safety Assessments and Reporting 3 0 3
EVT 110 Introduction to Environmental Laws and Regulations 3 0 3
EVT 250 Hazardous Waste Operations and Emergency Response 3 2 4
EVT 260 Introduction to Industrial Hygiene 2 2 3

Total Semester Credit Hours ..................................24
Industrial Systems Technology

Associate in Applied Science Degree

FAME Option

Available: Shoals Campus
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu
C. Bogus (5250) caleb.bogus@nwscc.edu

This degree is designed to offer students advanced entry level skills in the field of Industrial Systems Technology. A student who graduates in the program should be able to install and maintain all types of plant equipment.

General Information
Students must apply, meet the entrance requirements, and be selected for acceptance into the FAME program. Meeting entrance requirements does not guarantee acceptance into the program due to apprenticeship component, which also requires selection by a participating industry partner.

Entrance Requirements
An online fillable FAME application and additional instructions are available at nwscc.edu/fame. Hard copies of application materials may be turned into the Admissions office on either the Phil Campbell or Shoals campus. Digital materials may be submitted to fame@nwscc.edu. Students must submit the following items:
- NW-SCC online application
- FAME application
- Unofficial copy of High School and College transcripts
- Unofficial or official score report from ACT or Accuplacer
- Essay
- Completion of Career Interest Inventory

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition..............................................3
ENG 101 English Composition I....................................3

Area II: Humanities and Fine Arts............................................3
Fine Arts Elective:
Choose ONE from among:
- ART 100 Art Appreciation
- MUS 101 Music Appreciation
- PHL 106 Introduction to Philosophy
- PHL 206 Ethics and Society
- REL 100 History of World Religions
- REL 151 Survey of the Old Testament
- REL 152 Survey of the New Testament

Area III: Natural Sciences and Mathematics..........................7
MTH 100 Intermediate College Algebra.............................3
PHY 115 Technical Physics.............................................4

Area IV: History, Social and Behavioral Science..................3
History: Choose ONE from among:
- HIS 101 Western Civilization I
- HIS 102 Western Civilization II
- HIS 201 United States History I
- HIS 202 United States History II

General Education Core................................................16
Area V: Technical Concentration and Electives.....................51
INT 101 DC Fundamentals............................................3
INT 103 AC Fundamentals............................................3
INT 113 Industrial Motor Controls I.................................3
INT 117 Principles of Ind Mechanics................................3
INT 118 Fundamentals of Hydraulics...............................3
INT 127 Principles of Pumps and Piping............................3
INT 134 Cutting and Welding............................................3
INT 158 Industrial Wiring.............................................3
INT 161 Blueprint Reading for Techs................................3
INT 184 Introduction to PLC’s........................................3
INT 206 Motors I.........................................................3
INT 213 Motor Controls II..............................................3
INT 254 Robotic Maint & Troubleshooting.........................3
INT 261 MSSC Safety..................................................3
INT 280 Computer Fundamentals....................................3
INT 284 Advanced PLC’s..............................................3
INT 291 COOP..........................................................3

General Education Core................................................16
Technical Concentration................................................51
Total Semester Credit Hours..........................................67
**Industrial Systems Technology**  470303  IIO
**Associate in Applied Science Degree**
**Electrical Option**

Available: Shoals Campus
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This degree is designed to offer students entry level skills in the field of Industrial Systems Technology with a total focus on electrical systems. A student who graduates in the program should be able to install and maintain all types of plant electrical systems.

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

**Area I: Written Composition** .................................................. 3
   ENG 101 English Composition I ........................................... 3

**Area II: Humanities and Fine Arts** ........................................ 3
   Fine Arts Elective: 
   **Choose ONE from among:**
   - ART 100 Art Appreciation
   - MUS 101 Music Appreciation
   - PHL 106 Introduction to Philosophy
   - PHL 206 Ethics and Society
   - REL 100 History of World Religions
   - REL 151 Survey of the Old Testament
   - REL 152 Survey of the New Testament

**Area III: Natural Sciences and Mathematics** .................. 7
   MTH 100 Intermediate College Algebra ................................... 3
   PHY 115 Technical Physics .................................................. 4

**Area IV: History, Social and Behavioral Science** ............. 3
   History: **Choose ONE from among:**
   - HIS 101 Western Civilization I
   - HIS 102 Western Civilization II
   - HIS 201 United States History I
   - HIS 202 United States History II

**General Education Core** ................................................ 16

**Area V: Technical Concentration and Electives** ............... 57
   INT 101 DC Fundamentals ................................................. 3
   INT 103 AC Fundamentals .................................................. 3
   INT 113 Industrial Motor Control I ..................................... 3
   INT 117 Principles in Ind. Maintenance ................................ 3
   INT 118 Fundamentals of Industrial Hydraulics and Pneumatics 3
   INT 134 Cutting and Welding ............................................. 3
   INT 158 Industrial Wiring I .............................................. 3
   INT 161 Blueprint Reading for Industrial Technicians ............. 3
   INT 184 Introduction to Programmable Logic Controllers ........ 3
   INT 206 Industrial Motors I .............................................. 3
   INT 207 Industrial Automatic Controls ................................... 3
   INT 211 Industrial Motors II ............................................. 3
   INT 213 Industrial Motor Control II ..................................... 3
   INT 261 MSSC Safety ...................................................... 3
   INT 280 Special Topics in Computer Fundamentals or INT 284 Advanced Programmable Logic Controllers 3
   INT 291 Co-Op ............................................................ 3
   INT Technical Electives .................................................... 6

**General Education Core** ................................................ 16

**Technical Concentration** ............................................... 57
**Total Semester Credit Hours** ........................................... 73
**Industrial Systems Technology 470303 IMO**  
**Associate in Applied Science Degree**  
**Mechanical Option**

Available: Shoals Campus  
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu  
T. Maupin (5247) tmaupin@nwscc.edu

This degree is designed to offer students entry level skills in the field of Industrial Systems Technology. A student who graduates in the program should be able to install and maintain all types of plant equipment.

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education Core</td>
<td>16</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>3</td>
</tr>
</tbody>
</table>

Choose ONE from among
- ART 100 Art Appreciation
- MUS 101 Music Appreciation
- PHL 106 Introduction to Philosophy
- PHL 206 Ethics and Society
- REL 100 History of World Religions
- REL 151 Survey of the Old Testament
- REL 152 Survey of the New Testament

**Area III: Natural Sciences and Mathematics**
- MTH 100 Intermediate College Algebra
- PHY 115 Technical Physics

**Area IV: History, Social and Behavioral Science**
- HIS 101 Western Civilization I
- HIS 102 Western Civilization II
- HIS 201 United States History I
- HIS 202 United States History II

**General Education Core**

<table>
<thead>
<tr>
<th>Area V: Technical Concentration and Requirements</th>
<th>57</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 101 DC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 103 AC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 106 Elements of Industrial Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>INT 113 Industrial Motor Control I</td>
<td>3</td>
</tr>
<tr>
<td>INT 117 Principles of Industrial Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>INT 118 Fundamentals of Industrial Hydraulics and Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>INT 121 Industrial Hydraulics Troubleshooting</td>
<td>3</td>
</tr>
<tr>
<td>INT 127 Principles of Industrial Pumps and Piping Systems</td>
<td>3</td>
</tr>
<tr>
<td>INT 134 Principles of Industrial Maintenance Welding and Metal Cutting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>INT 158 Industrial Wiring I</td>
<td>3</td>
</tr>
<tr>
<td>INT 161 Blueprint Reading for Industrial Technicians</td>
<td>3</td>
</tr>
<tr>
<td>INT 206 Industrial Motors I</td>
<td>3</td>
</tr>
<tr>
<td>INT 261 MSSC Safety</td>
<td>3</td>
</tr>
<tr>
<td>INT 280 Special Topics in Industrial Maintenance Tech.or</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours**

---

**Industrial Systems Technology 470303 IST**  
**Career Certificate**

Available: Shoals Campus  
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu  
T. Maupin (5247) tmaupin@nwscc.edu

This certificate is designed to offer students entry level skills in the field of Industrial Systems Technology. A student who graduates in the program should be able to install and maintain all types of plant equipment.

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 100 Intermediate College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>INT 101 DC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 103 AC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 113 Industrial Motor Control I</td>
<td>3</td>
</tr>
<tr>
<td>INT 117 Principles of Industrial Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>INT 118 Fundamentals of Industrial Hydraulics and Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>INT 134 Principles of Industrial Maintenance Welding and Metal Cutting Techniques</td>
<td>3</td>
</tr>
<tr>
<td>INT 158 Industrial Wiring I</td>
<td>3</td>
</tr>
<tr>
<td>INT 161 Blueprint Reading for Industrial Technicians</td>
<td>3</td>
</tr>
<tr>
<td>INT 206 Industrial Motors I</td>
<td>3</td>
</tr>
<tr>
<td>INT 261 MSSC Safety</td>
<td>3</td>
</tr>
<tr>
<td>INT 280 Special Topics in Industrial Maintenance Tech.or</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours**

---

**Industrial Systems Technology 470303 ISBA**  
**Basic Short-Term Career Certificate**

Available: Shoals Campus  
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu  
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is for students who want to gain knowledge of electrical theory and wiring principles. The courses are a study of basic AC and DC electrical theory and industrial wiring practices. Courses include hands on work on DC and AC circuitry, power supplies, print layout, and industrial wiring.

<table>
<thead>
<tr>
<th>Area V: Technical Concentration and Requirements</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 101 DC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 103 AC Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>INT 113 Industrial Motor Control I</td>
<td>3</td>
</tr>
<tr>
<td>INT 158 Industrial Wiring I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours**

---

**Industrial Systems Technology 470303 ISEL**  
**Electrical Short-Term Career Certificate**

Available: Shoals Campus  
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu  
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is for students who want to gain knowledge of industrial motors and motor controls. The courses are a study of motors found in industry and how to control those motors by using motor starters and PLC programming. Courses include hands on work, wiring motors, examining
parts of motors, troubleshooting motors, motor starters, motor circuits, and Programmable Logic Controllers. Courses will also include programming in relay ladder logic for PLC’s.

INT 184 Introduction to Programmable Logic Controllers ... 3
INT 206 Industrial Motors I .............................................3
INT 211 Industrial Motors II .........................................3
INT 213 Industrial Motor Control II ...............................3
Total Semester Credit Hours ...........................................12

**Industrial Systems Technology**  470303 ISME

**Mechanical Short-Term Career Certificate**

Available: Shoals Campus
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed for students to gain knowledge and credentialing in the Industrial Mechanical Industry. These courses are a study of industrial mechanical principles and hands on work on mechanical drive systems, shaft alignment, hydraulics, industrial pumps and piping systems.

INT 106 Elements of Industrial Mechanicis ....................3
INT 117 Principles of Industrials Mechanics .................3
INT 116 Fundamentals of Industrial Hydraulics and Pneumatics . ..................3
INT 127 Principles of Ind. Pumps and Piping Systems .....3
Total Semester Credit Hours ...........................................12

**Industrial Systems Technology**  470303 ISIN

**Instrumentation Short-Term Career Certificate**

Available: Shoals Campus
Advisors: J. Rogers (8038) jeffery.rogers@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is for students who want to gain knowledge of Industrial Instrumentation and Automation. These courses are a study of process measurements, calibration, and automation. Courses include hands on calibration work on pressure, level, flow, temperature, sensors, control valves, and industrial automation controls.

INT 184 Introduction to Programmable Logic Controllers ... 3
INT 207 Industrial Automatic Controls .........................3
ILT 114 Instrumentation Operation and Calibration ........3
ILT 240 Sensors Technology and Applications ...............3
Total Semester Credit Hours ...........................................12

**Machine Shop Technology**  309999

**AOT Degree**

Available: Phil Campbell and Shoals Campuses
Advisors: T. Maupin (5247) tmaupin@nwscc.edu
M. Johnson (8047) mjohnson@nwscc.edu

Students desiring to receive the AOT Award must complete all major certificate courses, one minor certificate course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Description</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Written Composition</td>
<td>3</td>
</tr>
<tr>
<td>II</td>
<td>Humanities and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>III</td>
<td>Natural Science and Mathematics</td>
<td>6</td>
</tr>
<tr>
<td>IV</td>
<td>History, Social and Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Education Core** ..................................................15

**Area V: Technical Concentration and Electives** ...............45
MSP 101 Basic Machining Technology ....................................5
MSP 102 Intermediate Machining Technology ....................5
MSP 103 Advanced Machining Technology .........................5
MSP 104 Basic Machining Calculations ...............................2
MSP 105 Lathes ................................................................3
MSP 107 Milling Machines ................................................3
MSP 115 Advanced Milling Machines ..................................5
MSP 121 Basic Blueprint Reading for Machinists .................2
MSP 131 Introduction to Metrology ....................................2
MSP 142 Advanced Machining Calculations .........................2
MSP 181 Special Topics-Grinding .....................................2
MSP 221 Advanced Blueprint Reading ................................2
MSP 291 Co-Op ................................................................3
MSP Electives ................................................................4

**Minor Requirements**

**Welding**  309999 MWT

**Fall and Spring Semester**
WDT 108 SMAW Fillet/OFC ...........................................3
WDT 109 SMAW Fillet/PAC/CAC ..................................3
WDT 122 SMAW Fillet/OFC Lab ....................................3
WDT 123 SMAW Fillet/PAC/CAC Lab .............................3

**Total Minor Requirements** ..............................................12

**Summer Semester**
WDT 110 Blue Print Reading ...........................................3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory ....3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab ........3
WDT 219 Welding Inspection and Testing ........................3

**Total Minor Requirements** ..............................................12

**MSSC Certified Production Technician**  309999 MSMS

ADM 291 MSS Safety Course ...........................................3
ADM 292 MSS Quality Practices and Measurement Course ..................................................3
ADM 293 MSS Manufacturing Processes and Production Course .....................................3
ADM 294 MSS Maintenance Awareness ................................3

**Total Minor Requirements** ..............................................12
**Minor Requirements** 309999 ACRT

**Air Conditioning/Refrigeration Technology**

- ACR 111 Refrigeration Principles ........................................ 3
- ACR 112 HVACR Service Procedures ...................................... 3
- ACR 132 Residential Air Conditioning .................................... 3
- ACR 209 Commercial Air Conditioning Systems ......................... 3

**Total Minor Requirements** .................................................. 12

**General Education Core** .................................................... 15

**Technical Concentration and Electives** .................. 45

**Minor Requirements** ...................................................... 12

**Total Requirements for AOT Degree** ......................... 72

*Computer competency skills are embedded within one or more courses required in this curriculum.

**Machine Shop/Computer Numerical Control (CNC) Career Certificate**

480503 MSP

Available: Phil Campbell and Shoals Campuses

Advisors: T. Maupin (5247) tmaupin@nwscc.edu

M. Johnson (8047) mjohnson@nwscc.edu

D. Vandiver (5247) dvandiver@nwscc.edu

This certificate is designed to prepare students to enter the machine tool industry. Students entering this plan should have good manual dexterity to operate equipment, spatial comprehension, and math skills to interpret part shape and size from blueprints and a good mechanical aptitude. No high school diploma or GED is required, but students must be at least 16 years of age to enroll. Students without GED’s are encouraged to use the College facilities to obtain a diploma while in the program.

The five-semester day plan (nine semester extended plan) exposes the student to most machine shop equipment. The student will operate drills, lathes, milling machines, and grinders. During the fourth semester, the student has the opportunity to learn the basics of CNC (Computer Numerical Control) programming, setup, and operation. An extensive study of CAM (Computer Aided Machining) is available through an elective course.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101</td>
<td>English Composition I or ENG 130 Technical Writing</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>MTH 116 Mathematical Applications or MTH 100 Intermediate College Algebra</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 101 Basic Machining Technology</td>
<td>1</td>
<td>12</td>
<td>5</td>
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<td></td>
</tr>
<tr>
<td>MSP 102 Intermediate Machining Tech.</td>
<td>1</td>
<td>12</td>
<td>5</td>
<td></td>
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</tr>
<tr>
<td>MSP 103 Adv. Machining Technology</td>
<td>1</td>
<td>12</td>
<td>5</td>
<td></td>
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</tr>
<tr>
<td>MSP 104 Basic Machining Calculations</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 105 Lathes</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 107 Milling Machines</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 111 Introduction to Computer Numerical Control</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>MSP 112 Basic CNC Turning</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td></td>
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<tr>
<td>MSP 113 Basic CNC Milling</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
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<tr>
<td>MSP 115 Advanced Milling Machines</td>
<td>2</td>
<td>9</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 121 Basic Blueprint Reading for Machinists</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 131 Introduction to Metrology</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP 142 Adv. Machining Calculations</td>
<td>1</td>
<td>3</td>
<td>2</td>
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</tr>
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</table>

**MSP 181 Special Topics Grinding** 1 3 2

**MSP 221 Advanced Blueprint Reading** 1 3 2

**MSP Elective** X X 1

**Total Semester Credit Hours** ........................................ 54

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.

*** Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.

**Salon and Spa Management 120412 SCO**

**Associate in Applied Science Degree**

**Cosmetology**

Available: Shoals Campus

Advisors: C. Bankston (5265) bankstonc@nwscc.edu

M. Grissom (5420) melinda.grissom@nwscc.edu

A degree program that prepares cosmetologists, hair stylists, and other personal grooming specialists to manage beauty parlors, shops, and full-service or specialized salon and to prepare for licensure as professional salon and spa owners. Includes instruction in cosmetic services marketing and retailing; advertising and promotion; salon management, the cosmetic and salon supply industries, hiring, supervision, and labor relations; applicable laws and regulations, professional standards and image; and customer service.

Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the theory and practical skills necessary to complete successfully the required NIC (National Interstate Council) testing, Alabama Board of Barbering and Cosmetology examination.

All entering students under the AAS degree must complete all required classes before they can take Alabama Board of Cosmetology and Barbering License Exam. Students cannot drop from an AAS Salon and Spa Degree to the Career Certificate.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 English Composition I</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Area I: Humanities and Fine Arts</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Area II: Fine Arts Elective: Choose ONE from among:</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>SPH 107 Fundamentals of Public Speaking</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>ART 100 Art Appreciation OR MUS 101 Music Appreciation</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Area III: Natural Sciences and Mathematics</strong></td>
<td>7</td>
</tr>
<tr>
<td><strong>MTH 116 Mathematical Applications or MTH 100 Intermediate College Algebra</strong></td>
<td>3</td>
</tr>
<tr>
<td>The additional 4 hours must be taken from the disciplines of Principles of Biology I, BIO 101 Intro to Biology I or BIO 103 CHM 111 PHS 111 Physical Science I, PHS 112 Physical Science II.</td>
<td>4</td>
</tr>
<tr>
<td><strong>Area IV: History, Social and Behavioral Science</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Choose ONE from among:</strong></td>
<td></td>
</tr>
<tr>
<td>HIS 101 Western Civilization I</td>
<td></td>
</tr>
<tr>
<td>HIS 102 Western Civilization II</td>
<td></td>
</tr>
<tr>
<td>HIS 201 United States History I</td>
<td></td>
</tr>
<tr>
<td>HIS 202 United States History II</td>
<td></td>
</tr>
</tbody>
</table>
CAREER TECHNICAL PROGRAMS
Northwest-Shoals Community College     2019-2020

CAREER TECHNICAL PROGRAMS

Area I: Written Composition .............................................. 3
ENG101 English Composition I

Area III: Natural Sciences and Mathematics ........................... 3
MTH116 Mathematical Applications

General Education Core .................................................. 7

**General Education Core** .................................................. 20

**Area V. Technical Concentration and Electives** ................. 48
COS 190 Internship in Cosmetology .................................... 3
SAL 133 Salon Management Technology ................................... 3
COS 111 Introduction to Cosmetology .................................. 3
COS 112 Introduction to Cosmetology Lab ............................. 3
COS 113 Theory of Chemical Services .................................. 3
COS 114 Chemical Services Lab ........................................... 3
COS 115 Hair Coloring Theory ............................................ 3
COS 116 Hair Coloring Lab .................................................. 3
COS 117 Basic Spa Techniques ............................................ 3
COS 118 Basic Spa Techniques Lab ....................................... 3
COS 123 Cosmetology Salon Practices .................................. 3
COS 144 Hair Shaping and Design ......................................... 3
COS 145 Hair Shaping Lab ................................................... 3

**General Education Core** .................................................. 20

**Technical Concentration and Electives** ............................ 48

Total Semester Credit Hours ............................................. 68

Advisors:
Available:  Shoals Campus
C. Bankston (5265)  bankstonc@nwscc.edu
M. Grissom (5420)  melinda.grissom@nwscc.edu

**Salon and Spa Management** 120412  SSC

**Career Certificate**

A career certificate that prepares cosmetologists, hairstylists, and other personal grooming specialists to manage beauty parlors, shops, and full-service or specialized salon and to prepare for licensure as professional salon and spa owners operator. Includes instruction in cosmetic services marketing and retailing; advertising and promotion; salon management; the cosmetic and salon supply industries; hiring; supervision, and labor relations; applicable business and professional laws and regulations; professional standards and image; and customer service. Students are provided a complete review of all procedures and practical skills pertaining to their training in the program.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

All entering students under the Salon and Spa Management Career Certificate program must complete 1500 clock hours to be eligible to take Alabama Board of Cosmetology and Barbering license Exam. All students must complete all credit units that are required along with MTH 116 or higher and ENG 101.

Area I: Written Composition .............................................. 3

Area III: Natural Sciences and Mathematics ........................... 3
MTH116 Mathematical Applications

General Education Core .................................................. 7

**Area V. Technical Concentration and Electives** ................. 42
COS190 Internship in Cosmetology .................................... 3
SAL133 Salon Management Technology ................................ 3
COS111 Introduction to Cosmetology .................................. 3
COS112 Introduction to Cosmetology Lab ............................. 3
COS113 Theory of Chemical Services .................................. 3
COS114 Chemical Services Lab ........................................... 3
COS115 Hair Coloring Theory ............................................ 3
COS116 Hair Coloring Lab .................................................. 3
COS117 Basic Spa Techniques ............................................ 3
COS118 Basic Spa Techniques Lab ....................................... 3
COS123 Cosmetology Salon Practices .................................. 3
COS143 Specialty Hair Preparation Techniques ...................... 3
COS144 Hair Shaping and Design ......................................... 3
COS145 Hair Shaping Lab ................................................... 3

General Education Core .................................................. 6

**Technical Concentration and Electives** ............................ 42
Total Semester Credit Hours ............................................. 49

**Salon and Spa Management** 120499  CIT

**Instructor Training**

**Short-Term Certificate**

Available:  Shoals Campus
Advisors:  C. Bankston (5265)  bankstonc@nwscc.edu
M. Grissom (5420)  melinda.grissom@nwscc.edu

Instructor training is a teacher training program for licensed Cosmetologist. The student is introduced to curriculum development principles and methods of teaching through independent study. The courses include application of learning principles, methods, and techniques in a classroom and laboratory environment. Required record keeping, classroom management, and methods of evaluation are included in the short-term certificate.

The full-time program consists of two semesters, along with having a current Cosmetology license for at least one year, and three semesters if not currently licensed for one year. After completion of the prescribed curriculum, the student is eligible to take the NIC Alabama Board of Cosmetology and Barbering Instructor’s license. Completed courses and hours are transferable to some states for licensing.

**Requirements for admission:**

- Approved application with NW-SCC Salon and Spa Program.
- Student must have a current Cosmetology license for at least 1 year (the program requires two semesters).
- If student has a current Cosmetology license for less than a year, the program requires three semesters.
- Student instructors will furnish their books and materials necessary for the course.
- Associate in Applied Science Degree in Salon and Spa Management is required.

**Semester Hours**

<table>
<thead>
<tr>
<th>First Semester:</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIT 211 Teaching and Curriculum Development</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CIT 212 Teacher Mentorship</td>
<td>0</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>CIT 213 Lesson Plan Development</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CIT 214 Lesson Plan Methods and Development</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Second Semester:
- CIT 221 Lesson Plan Implementation: 0 9 3
- CIT 222 Instructional Materials and Methods: 3 0 3
- CIT 223 Instructional Materials and Methods Applications: 0 9 3
- CIT 224 Special Topics in Cosmetology Instruction: 3 0 3

Third Semester:
- COS 291 CO-OP: 1 2 3
- COS 162 Special Topics in Cosmetology: 3 3
- COS 125 Career and Personal Development: 3 0 3
- COS 167 State Board Review: 0 3 3

Total Semester Credit Hours: 36

Cosmetology Services
The Cosmetology Program offers salon services to the public on selected days. Students perform hairstyling as well as chemical, facial, and nail services for a minimum charge. For further information on scheduling an appointment, contact the instructors at: Nail Technology 256.331.5220, Skin Care/Facials 256.331.5295, and Hairstyling Services 256.331.5304.

Water and Wastewater Management and Technology Short-Term Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>WMT 100 Water Supply and Wastewater Control</td>
<td>3</td>
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<td>3</td>
</tr>
<tr>
<td>WMT 101 Introduction to Water Treatment Processes</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WMT 102 Introduction to Wastewater Treatment Processes</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>WMT 120 Sanitary Chemistry and Biology</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>WMT 213 Water and Wastewater Instrumentation and Controls</td>
<td>3</td>
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<td>3</td>
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<tr>
<td>WMT 214 Basic Hydraulics for Water and Wastewater Technology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WMT 291 Municipal Internship</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours: 21

Welding AOT Degree

Available: Phil Campbell and Shoals Campuses
Advisors: L. Liles (5254/8072) lliles@nwssc.edu, B. Keeton (6389) bkeeton@nwssc.edu, R. Garner (5289) wgarner@nwssc.edu

Students desiring to receive the AOT Award must complete all major requirement courses, one minor requirement course of study, and the required credit hours of general education courses in Areas I, II, III, and IV. Upon completion of all the courses listed, students are eligible to receive the Associate in Occupational Technology Degree. Students desiring to take general education courses for transfer to another institution should consult an advisor for proper general education course selection.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Area I: Written Composition: 3
- ENG 101 English Composition I or ENG 130 Technical Writing

Area II: Humanities and Fine Arts: 3

Area III: Natural Science and Mathematics: 6
- A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 3 hours of degree creditable coursework may be taken from disciplines of biology, chemistry, physical science, physics, environmental technology, and computer science.

Area IV: History, Social and Behavioral Sciences: 3
- Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.

General Education Core: 15

Area V: Technical Concentration and Electives: 45
- WDT 108 SMAW Fillet/OFC: 3
- WDT 109 SMAW Fillet/CAC: 3
- WDT 110 Industrial Blueprint Reading: 3
- WDT 115 GTA W Carbon Pipe: 3
- WDT 119 Gas Metal Arc/Flux Cored Arc Welding: 3
- WDT 120 Shielded Metal Arc Welding Groove: 3
- WDT 122 SMAW Fillet/OFC Lab: 3
- WDT 123 SMAW Fillet/PAC/CAC Lab: 3
- WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab: 3
- WDT 125 Shielded Metal Arc Welding Groove Lab: 3
- WDT 155 GTA W Carbon Pipe Lab: 3
- WDT 219 Welding Inspection and Testing: 3
- WDT 228 Gas Tungsten Arc Welding Theory: 3
- WDT 257 SMAW Carbon Pipe Lab: 3
- WDT 268 Gas Tungsten Arc Lab: 3
- WDT 291 Co-Op: 3

Minor Requirements
- Machine Shop Technology: 309999 WMS
  - MSP 101 Basic Machining Technology: 5
  - MSP 102 Intermediate Machining Technology: 5
  - MSP 121 Basic Blueprint Reading for Machinists: 2

Total Minor Requirements: 12

Minor Requirements
- Air Conditioning/Refrigeration Technology: 309999 WAC
  - ACR 111 Refrigeration Principles: 3
  - ACR 112 HVACR Service Procedures: 3
  - ACR 132 Residential Air Conditioning: 3
  - ACR 209 Commercial Air Conditioning Systems: 3

Total Minor Requirements: 12

Minor Requirements
- Automotive Service Technology: 309999 AUT
  - AUM 101 Fundamentals of Automotive Technology: 3
  - AUM 112 Electrical Fundamentals: 3
  - AUM 121 Braking Systems: 3
  - AUM 133 Motor Vehicle Air Conditioning: 3

Total Minor Requirements: 12
Minl Requirements

Carpentry Technology 309999 WCR
CAR 111 Construction Basics 3
CAR 112 Floors, Walls, Site Prep 3
CAR 113 Floors, Walls, Site Prep Lab 3
CAR 114 Construction Basics to Lab 3

Minor Requirements
Business and Construction Supervision 309999 BCS
BUS 241 Principles of Accounting 3
BUS 275 Principles of Management 3
BUS 279 Small Business Management 3
OAD 217 Office Management 3

Total Minor Requirements 12

MSSC Certified Production Technician 309999 MSWE
ADM 291 MSS Safety Course 3
ADM 292 MSS Quality Practices and Measurement Course 3
ADM 293 MSSC Manufacturing Processes and Production Course 3
ADM 294 MSSC Maintenance Awareness 3

Total Minor Requirements 12

General Education Core 15-16
Technical Concentration and Electives 48

Minor Requirements 12

Total Requirements for AOT Degree 75-76

*Computer competency skills are embedded within one or more courses required in this curriculum.

Welding Career Certificate 480508 WEL

Available: Phil Campbell and Shoals Campuses
Advisor: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This certificate is designed to develop the skills necessary to enter and maintain a job in the welding field. Students should develop the skills necessary to pass a certification test that meets the requirements of the American Welding Society (AWS) D1.1 code. Applicants are not required to have completed any particular subject prior to enrollment. Welders need to have good eye-hand coordination, and they need to be in good physical condition. Welding is used in fabrication shops, construction, maintenance, ship building, aircraft, automotive, electrical, and machine shops. Welding is a tool of all trades. The welding field is rapidly expanding, requiring a continually increasing volume of technical knowledge and skills on the part of the operator.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Theory</th>
<th>Lab</th>
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<tbody>
<tr>
<td>3</td>
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</tbody>
</table>

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.**

**A high school diploma or GED certificate is not required for admission to this program. Students must be at least 16 years old to enroll.**

Welding Technology 480508 WDT

Basic Short-Term Certificate

Available: Phil Campbell and Shoals Campuses
Advisor: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compete favorably in the welding field.

Opportunities for welders exist in the business services industry, manufacturing, repair and production work, construction, machinery maintenance, wholesale trade, and automotive vehicle industry.

Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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</tbody>
</table>

**Transfer Credit: Students may receive up to one semester of Advanced Placement for Career Technical coursework completed at another institution.**
Welding 480508 WBS

Basic SMAW (Stick)

Short-Term Certificate

Available: Phil Campbell and Shoals Campuses
Advisors: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compare automotive vehicle industry. Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDT 108 SMAW Fillet/OFC .................................................3</td>
</tr>
<tr>
<td>WDT 109 SMAW Fillet/PAC/CAC ........................................3</td>
</tr>
<tr>
<td>WDT 122 SMAW Fillet/OFC Lab ...........................................3</td>
</tr>
<tr>
<td>WDT 123 SMAW Fillet/PAC/CAC Lab .....................................3</td>
</tr>
<tr>
<td>Total Semester Credit Hours ........................................12</td>
</tr>
</tbody>
</table>

Welding 480508 WGP

SMAW Groove and Pipe (STICK)

Short-Term Certificate

Available: Phil Campbell and Shoals Campuses
Advisors: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compare automotive vehicle industry. Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>WDT 120 Shielded Metal Arc Welding Groove Theory .................................................3</td>
</tr>
<tr>
<td>WDT 125 Shielded Metal Arc Welding Groove Lab ...........................................3</td>
</tr>
<tr>
<td>WDT 257 SMAW Carbon Pipe Lab .............................................3</td>
</tr>
<tr>
<td>Total Semester Credit Hours ........................................9</td>
</tr>
</tbody>
</table>

Welding 480508 WFG

FCAW/GMAW (MIG/Flux Cored)

Short-Term Certificate

Available: Phil Campbell and Shoals Campuses
Advisors: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compare automotive vehicle industry. Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>WDT 110 Industrial Blueprint Reading ........................................3</td>
</tr>
<tr>
<td>WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory ........................................3</td>
</tr>
<tr>
<td>WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab ....................................3</td>
</tr>
<tr>
<td>WDT 219 Welding Inspection and Testing ........................................3</td>
</tr>
<tr>
<td>Total Semester Credit Hours ........................................12</td>
</tr>
</tbody>
</table>

Welding 480508 WPP

GTAW Plate and Pipe (TIG)

Short-Term Certificate

Available: Phil Campbell and Shoals Campuses
Advisors: L. Liles (5254/8072) lliles@nwscc.edu
B. Keeton (6389) bkeeton@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This short-term certificate is designed to prepare students for immediate employment. Students are provided with technical knowledge and job specific skills that enable them to compare automotive vehicle industry. Welders need good eyesight, good eye-hand coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods of time and be able to bend, stoop, and work in awkward positions. Welders need to be adaptable to receive cross-training for other production jobs.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>WDT 115 GTAW Carbon Pipe Theory ........................................3</td>
</tr>
<tr>
<td>WDT 155 GTAW Carbon Pipe Lab ...........................................3</td>
</tr>
<tr>
<td>WDT 228 Gas Tungsten Arc Welding Theory ....................................3</td>
</tr>
<tr>
<td>WDT 268 Gas Tungsten Arc Lab .............................................3</td>
</tr>
<tr>
<td>Total Semester Credit Hours ........................................12</td>
</tr>
</tbody>
</table>
Health Studies Programs
Northwest-Shoals Community College (NW-SCC) offers a variety of health programs. Each program seeks national accreditation through its specialty organization to demonstrate the quality of the educational programs. If state or national credentialing is available, the health science program prepares students to take that exam upon program completion.

NW-SCC offers students the ability to earn an Associate in Science degree, Associate in Applied Science degree, career certificate and short term certificate.

**Associate in Applied Science Degree**
Diagnostic Imaging - Radiography ....................510911 MRAD  
Diagnostic Medical Sonography .....................510910 MDMS  
Emergency Medical Services ...........................510904 EMP  
Medical Assisting Technology ..........................510801 MAT  
Registered Nursing ........................................513801 NUR  
  Nursing Mobility(LP and Paramedic to ADN)513801 MOB

**Career Certificates**
Paramedic ...................................................510904 EMS  
Practical Nursing (LPN) .................................511613 LPN

**Short-Term General Certificates**
EMT ...........................................................510904 EMT  
EMT Advanced .............................................510904 EMA  
Medical Assisting Technology ............................
  Phlebotomy Option ......................................510801 PBY  
  Medical Billing and Coding Option ...............510801 MCO

**Allied Health - Linkage Programs**
Clinical Laboratory Technician ..........................510899 GEL  
Dental Assisting ..........................................510899 GEL  
Dental Hygiene ..............................................510899 GEL  
Health Information Technology .........................510899 GEL  
Human Services ..............................................510899 GEL  
Occupational Therapist Assistant .......................510899 GEL  
Physical Therapist Assistant ............................510899 GEL  
Respiratory Therapy ........................................510899 GEL

*Allied Health Linkage Programs are to be completed at Wallace/Hanceville in order to receive degree.*

**Special Program**
Nursing Assistant ..........................................513902 NAS
**Diagnostic Imaging - Radiography  510911RAD**

Associate in Applied Science Degree

Available: Muscle Shoals Campus
Advisors:  B. Humphres (6207) bhumphres@nwscc.edu  
R. Robertson (6241) rick.robertson@nwscc.edu  
M. Simpson (5436) msimpson@nwscc.edu

**GENERAL INFORMATION**

The Division of Health Studies offers a five-semester Associate Degree Diagnostic Imaging (RAD) program. Upon satisfactory completion, the Associate of Applied Science Degree is awarded. The Diagnostic Imaging program prepares individuals, under the supervision of physicians, to provide medical imaging services to patients and attending health care professionals. The student will receive training in applied anatomy & physiology, patient positioning, radiographic technique, radiation biology, safety and emergency procedures, equipment operation and maintenance, quality assurance, patient education, and medical imaging/radiologic services management.

**NOTICE:** The curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed. The most updated information will be found in the College catalog posted on the NW-SCC website.

**ADMISSION**

1. Complete and submit college admissions application to the Admissions Office and receive a NW-SCC student number prior to application deadline.
2. Complete and submit application for the Program (separate from college application) to the Assistant to Health Studies Office in Building 122, Room 162, with unofficial transcripts from all colleges attended attached by the deadline of April 15th.
3. Have an unconditional admission to the college.
4. Be in good standing with the college.
5. Submit official high school transcripts showing graduation OR official GED report to the Admissions Office. A final transcript with proof of graduation must be received by June 1st.
6. Submit official transcripts from ALL other colleges attended to the Admissions Office prior to application deadline. If you are attending another college, the final official transcript must be received by the Admissions Office by June 1st.
7. Must have a minimum 2.50 cumulative grade point average on a 4.0 scale based on the required academic core courses for Diagnostic Imaging, and a. Current or previous NW-SCC students must have a minimum 2.0 GPA or higher at NW-SCC.
   b. Transfer students must enter NW-SCC on clear academic status (cumulative 2.0 GPA)
8. Have a minimum of 18 ACT composite score National or Residual. The writing component is not required. The official results must be sent to the NW-SCC Admissions Office. An unofficial copy of the ACT scores must be attached to the Diagnostic Imaging application. There is no expiration date on the ACT score for the Diagnostic Imaging application. The ACT must be taken by the application deadline.
9. Have completed BIO201, ENG101, MTH100 or higher, PSY200 or PSY210, and a Humanities Elective with a grade of C or higher. (Classes must be completed with official documentation before the deadline of June 1st.)
10. Meet the essential functions required for Diagnostic Imaging Program.

The College reserves the right to adjust requirements or use additional criteria to determine admission. Admission to the Associate of Applied Science in Diagnostic Imaging is competitive; the number of students is limited by the number of faculty and clinical facilities available. Meeting minimum admission criteria does not guarantee admission into the Program. After meeting all minimum criteria, applicants are ranked using a point system.

The Associate Degree Diagnostic Imaging is developed as a combined sequence of radiography coursework. It is strongly suggested that all general education coursework be completed with a minimum grade of “C” or higher prior to the start of radiography coursework. The general education courses are offered on both the Shoals and Phil Campbell campuses at NW-SCC. Completion of certain courses prior to application results in a higher ranking score and improves the chances of being admitted.

**NOTICE:** Your ability to comply with the ESSENTIAL FUNCTIONS listed may be evaluated by health studies faculty at any time that your ability to do so is in question.

**ESSENTIAL FUNCTIONS**

The Alabama Community College System endorses the Americans’ with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.

The essential functions delineated below are necessary for Diagnostic Imaging program admission, progression and graduation and for the provision of safe and effective Diagnostic Imaging care. The essential functions include but are not limited to the ability to:

Candidates must be able to meet all Essential Functions required of the program. Physical disabilities must not pose a threat to the safety of the student, faculty, patients, or other health care workers.

Those functions are as follows:

- Have physical stamina to stand and walk for 8 hours or more in a clinical setting
- Can stand on both legs, move from room to room, and maneuver in small spaces
- Can bend the body downward and forward by bending at the spine and waist
- Can flex and extend all joints freely
  - Can raise objects from a lower to higher position or move objects horizontally from position to position
  - Possess mobility, coordination and strength to push, pull, or transfer heavy objects (strength to lift 25 lbs. frequently and 50 lbs. or more occasionally)
- Possess manual dexterity, mobility, and stamina to perform CPR
- Can seize, grasp, turn and otherwise work with both hands
- Can pick, pinch, or otherwise work with fingers
- Possess sufficient hearing to assess patients’ needs, follow instructions, communicate with other health care workers, as well as respond to audible sounds of radiographic equipment
HEALTH STUDIES PROGRAMS
Northwest-Shoals Community College     2019-2020

• Possess the visual acuity to read, write, and assess the patient and the environment
• Possess verbal, nonverbal, and written communication skill adequate to exchange ideas, detailed information, and instructions accurately
• Able to read, comprehend, and write legibly in the English language
• Able to interact purposefully and effectively with others
• Able to convey sensitivity, respect, tact, and a mentally healthy attitude
• Oriented to reality and not mentally impaired by mind-altering substances
• Able to function safely and effectively during high-stress periods

TRANSFER POLICY
The transfer policy applies only to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

Criteria for transfer:
1. Must meet minimum admission standards for the Diagnostic Imaging program.
2. Must possess a grade of C or better in all Diagnostic Imaging required courses taken at another institution and possess a minimum of a 2.0 cumulative GPA at the time of transfer.
3. Dean/Chairperson/Director of previous Diagnostic Imaging program must provide a letter of eligibility for progression in previous Diagnostic Imaging program.
4. Must comply with all program policies and requirements at NW-SCC (including, but not limited to the program, progression policy, Diagnostic Imaging progression policy, and reinstatement policy).
5. Complete at least 25% of the Diagnostic Imaging program required courses for degree at NW-SCC.
6. Must meet acceptability criteria for placement at all clinical agencies for clinical experiences.
7. Acceptance of transfer students into the Diagnostic Imaging program is limited by the number of faculty and clinical facilities available. Meeting minimal standards does not guarantee acceptance.
8. ACCS Diagnostic Imaging Curriculum courses will be transferred without review of the course syllabus.
9. Submit an application requesting transfer to the Diagnostic Imaging Program by the deadline published by the program.

PROGRAM REQUIREMENTS
After acceptance each student must:
1. Submit completed medical examination forms (at student expense) that provide evidence that the student is free of communicable disease and chemical dependency, and is physically and psychologically able to participate fully in both classroom and clinical aspects of the program. The Health Studies Faculty reserves the right to require at any time (at student expense) an additional medical examination in order to evaluate the student’s state of physical, mental, and/or emotional health such as during pregnancy, infectious diseases, interference with mobility, emotional stability, chemical dependence, etc. When an examination or treatment is required, written proof must be provided by the physician attesting to the student’s ability to carry out both classroom and clinical requirements of the program.

NOTE: Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by any clinical agency.

2. Meet the Essential Functions with or without reasonable accommodations. These functions relate to the physical, mental, and emotional capabilities of the prospective students and are available in writing from the Health Studies Division or individual programs. Additional health criteria may be required by clinical agencies.
3. Purchase regulation uniforms and specified accessories.
4. Participate in, successfully complete, and pay for course card in cardiopulmonary resuscitation at the health care provider level (BLS) by the American Heart Association through the NW-SCC Health Studies Division during the first semester of the program.
5. Receive certain immunizations/vaccinations at the student’s expense.
6. Purchase professional liability insurance through the College (attached fee).
7. Participate in and pay for periodic standardized tests (if applicable).
8. Participate in and pay for substance abuse testing as directed by the Health Studies Division.
9. Participate in and pay for background checks as directed by the Health Studies Division. It is recommended that each student carry health insurance.

PROGRAM PROGRESSION POLICY:
In order to continue in the Diagnostic Imaging program, the student must:
1. Complete all required coursework from each previous semester with a grade of C or higher.
2. Maintain a 2.0 cumulative GPA at NW-SCC.

Please note: The Grading Scale for all Diagnostic Imaging Courses is:
A = 90 – 100
B = 80 – 89
C = 75 – 79
D = 60 – 74
F = 59 and below

3. Be accepted by all clinical agencies for clinical experiences. If a student is dismissed from any clinical agency, the student will be dismissed from the program. Depending on the issue, the student may be withdrawn or receive a failing clinical grade.
4. Earn a satisfactory clinical evaluation in all Diagnostic Imaging courses with a clinical component.
5. Maintain ability to meet essential functions for the program with or without reasonable accommodations.
7. Maintain an adequate level of health, including but not limited to, annual physical examination, annual PPD, vaccinations, and freedom from chemical dependency and/or mental disorder.

A student that has an unsuccessful attempt in a radiography course (W, I, D, or F) cannot progress in the Diagnostic Imaging sequence until the course is completed successfully. Course repetition will be based on instructor availability and program resources.
DIAGNOSTIC IMAGING PROGRESSION POLICY
In order to progress in the Diagnostic Imaging program, the following policy should be followed:
1. A total of two unsuccessful attempts in two separate semesters (D, F, or W) in the Diagnostic Imaging program will result in dismissal from the program.
2. A student may be reinstated to the Diagnostic Imaging program only one time. The reinstatement is not guaranteed due to limitations in clinical spaces. All Diagnostic Imaging admission standards must be met.
3. A student must have a 2.0 cumulative GPA at the current institution for reinstatement.
4. If a student has a documented extenuating circumstance that should be considered related to a withdrawal or failure, then the student may request a hearing before the Admission Committee or other appropriate college committee for a decision on repeating a course or readmission to the program.

REINSTATEMENT POLICY:
Definition or reinstatement: Students who have a withdrawal or failure in a Diagnostic Imaging course and are eligible to return to that course will be considered for reinstatement to the program.
1. Students who desire to be reinstated following non-progression must schedule an appointment with a Diagnostic Imaging faculty advisor to discuss reinstatement.
2. A student must request reinstatement within one year from the term of non-progression to be eligible for reinstatement.
3. In order to be eligible for reinstatement, the student must,
   a) Apply for readmission to the College if not currently enrolled;
   b) Receive unconditional admission status from the College;
   c) Demonstrate a 2.0 GPA in the Diagnostic Imaging Program;
   d) Have no more than one non-progression since program admission;
   e) Submit application requesting reinstatement to the program by the deadline
   f) Demonstrate the ability to meet essential functions for the Diagnostic Imaging program with or without reasonable accommodations;
   g) Demonstrate competency in previous Diagnostic Imaging courses by those students who have been out of progression for greater than one semester (This may be evaluated by testing and/or skills validation);
   h) Be accepted by all clinical agencies for clinical experiences;
   i) Demonstrate current American Heart Association CPR completion at the Health Care Provider level;
4. Students dismissed from the NW-SCC Diagnostic Imaging program for disciplinary reasons and/or unsafe patient care in the clinical area will not be allowed reinstatement to the program. The student may reapply as a new student to the program provided:
   a) The student meets current entry requirements, and
   b) The student was not dismissed from the previous program for disciplinary reasons or for unsafe/unsatisfactory patient care in the clinical area that resulted in actual harm or injury to self or others;
   c) The student is accepted by all clinical agencies for clinical experiences.

STANDARDS OF CONDUCT:
The Diagnostic Imaging student shall comply with the standards that determine acceptable behavior of a diagnostic imaging student. FAILURE TO COMPLY WITH ANY OF THESE STANDARDS WHILE IN ANY HEALTH STUDIES PROGRAM CONSTITUTES GROUNDS FOR DISMISSAL FROM THE PROGRAM.

The following examples of behavior may be grounds for dismissal from a Health Studies Program or for certification/licensure application. Any individual who:
1. Is guilty of fraud or deceit in procuring or attempting to procure a license.
2. Is guilty of a crime involving moral turpitude or of gross immorality that would tend to bring reproach upon the profession.
3. Is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit-forming drugs to such an extent as to render the licensee unsafe or unreliable.
4. Is mentally incompetent.
5. Is guilty of unprofessional conduct of a character likely to deceive, defraud, or injure the public in matters pertaining to health.
6. Has willfully or repeatedly violated any of the provisions for standards of conduct related to the profession.
7. Has been convicted of a felony.
8. Has been convicted of any violation of a Federal or State law relating to controlled substances.
9. Has any other reasons authorized by law.
10. Has been placed on a State and/or Federal abuse registry.
11. Has been court martialed or disciplined or administratively discharged by the military.
Students who have demonstrated any of the behaviors prior to or during attendance of the program may have to provide appropriate explanatory documentation with the certification/licensing agency board. Any concerns related to the above should be discussed with a program advisor.

**ANTICIPATED EXPENSES:**
As a student in the program, you can anticipate certain necessary expenses. First of all, the tuition rate is the same as that for other NW-SCC students, but Diagnostic Imaging Program students will incur other expenses, which are listed below. Note that the amounts listed are approximations and are subject to change. The list may not include all items, but any additional would be disclosed to students upon admission to the program.

Books and on-line resources $1,600.00
Physical Exam, TB Tests & Immunizations $1,000.00
Uniforms and Small Equipment $345.00
Clinical Kit / Tracking $150.00
Clinical ID Badges $20.00
Drug Screening $40.00
Liability Insurance $80.00
Background Checks $75.00

NOTICE: In addition to the expenses listed, you are responsible for transportation, meals, health care expenses, any liability incurred during and while traveling to and/or from educational experiences.

**Diagnostic Imaging - Radiology 510911 MRAD Associate in Applied Science Degree**
Available: Muscle Shoals Campus
Advisors: B. Humphres (6207) bhumphres@nwscc.edu
          R. Robertson (6241) rick.robertson@nwscc.edu
          M. Simpson (5436) msimpson@nwscc.edu

The Associate in Applied Science Degree in Diagnostic Imaging is a five-semester program beginning upon admission into the Diagnostic Imaging program, which prepares the graduate to sit for certification.

**Semester I (Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>MTH 100 Intermediate College Algebra</td>
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<tr>
<td>BIO 201 Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>RAD 111 Introduction to Radiography</td>
<td>2</td>
</tr>
<tr>
<td>RAD 112 Radiographic Procedures I</td>
<td>4</td>
</tr>
<tr>
<td>RAD 113 Patient Care</td>
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<tr>
<td>RAD 114 Clinical Education I</td>
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**Semester II (Spring)**

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
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<tbody>
<tr>
<td>BIO 202 Human Anatomy &amp; Physiology II</td>
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<tr>
<td>RAD 122 Radiographic Procedures II</td>
<td>4</td>
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<td>RAD 124 Clinical Education II</td>
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<tr>
<td>RAD 125 Imaging Equipment</td>
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**Semester III (Summer)**

<table>
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</thead>
<tbody>
<tr>
<td>ENG 101 English Composition I</td>
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</tr>
<tr>
<td>RAD 135 Exposure Principles</td>
<td>3</td>
</tr>
<tr>
<td>RAD 136 Radiation Protection &amp; Biology</td>
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<tr>
<td>RAD 134 Clinical Education III</td>
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**Semester IV (Fall)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>PSY 200 General Psychology or PSY 210</td>
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<tr>
<td>Human Growth and Development</td>
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<tr>
<td>RAD 212 Image Evaluation and Pathology</td>
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<td>RAD 214 Clinical Education IV</td>
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**Semester V (Spring)**

<table>
<thead>
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<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>RAD 227 Review Seminar</td>
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<tr>
<td>RAD 224 Clinical Education V</td>
<td>8</td>
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<tr>
<td>Humanities Choose from:</td>
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<tr>
<td>ART 100, MUS 101, PHL106/206,</td>
<td></td>
</tr>
<tr>
<td>Elective REL 100/151/152, or SPA 101</td>
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</tr>
</tbody>
</table>

Total Semester Credit Hours: 72

*Post-Primary Medical Imaging Certificates for Magnetic Resonance Imaging (MRI) and computer Tomography (CT) are available through the program. Please see the Medical Imaging Program Director for Information.

**Post-Primary Medical Imaging Certificate Curriculum is currently being reviewed. Please discuss these options with the Diagnostic Imaging Program Director.

**Diagnostic Medical Sonography 510910 MDMS Associate in Applied Science Degree**
Available: Muscle Shoals Campus
Advisors: B. Humphres (6207) bhumphres@nwscc.edu
          R. Robertson (6241) rick.robertson@nwscc.edu
          M. Simpson (5436) msimpson@nwscc.edu

**GENERAL INFORMATION**
The Division of Health Studies offers a four-semester Associate Degree Diagnostic Medical Sonography (DMS) program. Upon satisfactory completion, the Associate of Applied Science Degree is awarded. The Diagnostic Medical Sonography program prepares individuals, under the supervision of physicians, to utilize medical ultrasound techniques to gather sonographic data used to diagnose a variety of conditions and diseases. The student will receive training in acoustic principles, instrumentation and safety, abdominal, obstetrical, gynecologic, and superficial sonography.

The Associate Degree Diagnostic Medical Sonography Program supports the Philosophy and Purpose of the College and serves its community by preparing associate degree sonographers for a beginning level of practice in varied health settings.

Purpose and Goal: To prepare competent entry-level general sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.

NOTICE: The curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed. The most updated information will be found in the College catalog posted on the NW-SCC website.
ADMISSION

1. Complete and submit college admissions application to the Admissions Office and receive a NW-SCC student number prior to application deadline.
2. Complete and submit application for the Program (separate from college application) to the Assistant to Health Studies Office in Building 122, Room 162, with unofficial transcripts from all colleges attended attached. The deadline is April 15th.
3. Have an unconditional admission to the college.
4. Be in good standing with the college.
5. Submit official high school transcripts showing graduation OR official GED report to the Admissions Office. A final transcript with proof of graduation must be received by June 1st.
6. Submit official transcripts from ALL other colleges attended to the Admissions Office prior to application deadline. If you are attending another college, the final official transcript must be received by the Admissions Office by June 1st.
7. Must have a minimum 2.50 cumulative grade point average on a 4.0 scale based on the required academic core courses for Diagnostic Medical Sonography, and
   a. Current or previous NW-SCC students must have a minimum 2.0 GPA or higher at NW-SCC.
   b. Transfer students must enter NW-SCC on clear academic status (cumulative 2.0 GPA)
8. Have a minimum of 18 ACT composite score National or Residual. The writing component is not required. The official results must be sent to the NW-SCC Admissions Office. An unofficial copy of the ACT scores must be attached to the Diagnostic Medical Sonography application. There is no expiration date on the ACT score for the Diagnostic Medical Sonography application. The ACT must be taken by the application deadline.
9. Have completed BIO201, ENG101, MTH100 or higher, PHY115, PSY200 or PSY210, and a Humanities Elective with a grade of C or higher. (Classes must be completed with official documentation before the deadline of June 1st.)
10. Meet the essential functions required for Diagnostic Medical Sonography.

The College reserves the right to adjust requirements or use additional criteria to determine admission.

Admission to the Associate of Applied Science in Diagnostic Medical Sonography Degree is competitive; the number of students is limited by the number of faculty and clinical facilities available. Meeting minimum admission criteria does not guarantee admission into the Program. After meeting all minimum criteria, applicants are ranked using a point system.

The Associate Degree Diagnostic Medical Sonography Program is developed as a combined sequence of sonography coursework. General education coursework must be completed with a minimum grade of “C” or higher prior to the start of sonography coursework. The general education courses are offered on both the Shoals and Phil Campbell campuses at NW-SCC. Completion of certain courses prior to application results in a higher ranking score and improves the chances of being admitted.

NOTICE: Your ability to comply with the ESSENTIAL FUNCTIONS listed may be evaluated by health studies faculty at anytime that your ability to do so is in question.

ESSENTIAL FUNCTIONS

The Alabama Community College System endorses the Americans with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.

The essential functions delineated below are necessary for Diagnostic Medical Sonography program admission, progression and graduation and for the provision of safe and effective Diagnostic Medical Sonography care. The essential functions include but are not limited to the ability to:

- Candidates must be able to meet all Essential Functions required of the program. Physical disabilities must not pose a threat to the safety of the student, faculty, patients, or other health care workers.

The technical standards include but are not limited to the ability to:
- Push, pull or lift 50 pounds routinely and more than 50 pounds occasionally.
- Bend, stoop, kneel, squat or sit and reach routinely.
- Independently perform CPR as defined by the American Heart Association guidelines.
- Adequately control imaging transducer and manipulate equipment weighing up to 500 pounds on wheels.
- Have full use of hands, wrists, and shoulders.
- Adequately visualize and perceive image data on computer and video monitors to acquire and interpret sonographic image data with color distinction.
- Sufficiently distinguish fine audible differences including Doppler signals, patient and co-worker communication and patient conditions such as respirations or movements.
- Work standing on their feet 80% of the time.
- Interact compassionately and effectively with the sick or injured to include good communication skills.
- Assist patients on and off examining tables.
- Fluently demonstrate English language skills to provide optimum communication with patient and healthcare team members.
- Follow verbal and written instructions to provide optimum care for patients.
- Organize and accurately perform the individual steps in a sonographic procedure.

The Sonographer must have sufficient strength, motor coordination and manual dexterity to:
- Transport, move, lift and transfer patients from a wheelchair or cart to a sonography table or to a patient bed.
- Move, adjust and manipulate a variety of sonographic equipment, including the physical transportation of mobile sonographic machines, in order to complete examinations on the patient according to established procedure and standards of speed and accuracy.

The Sonographer must be capable of:
- Handling stressful situations related to technical and procedural standards and patient care situations.
- Providing physical and emotional support to the patient during the sonographic procedures, being able to respond to situations requiring first aid and providing emergency care to the patient in the absence of, or until the physician arrives.
- Communicating verbally in an effective manner in order to direct patients during sonographic examinations.
- Visually recognizing anatomy on CRT screen.
- Reading and interpreting patient charts and requisitions for sonographic examinations.
The Sonographer must have the mental and intellectual capacity to:
- Calculate and select proper technical factors according to the individual needs of the patient and the requirements of the procedure’s standards of speed and accuracy.
- Review and evaluate the recorded images on a CRT and archiving system for the purpose of identifying patient pathology.

TRANSFER POLICY
The transfer policy applies only to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

Criteria for transfer:
1. Must meet minimum admission standards for the Diagnostic Medical Sonography program.
2. Must possess a grade of C or better in all Diagnostic Medical Sonography required courses taken at another institution and possess a minimum of a 2.0 cumulative GPA at the time of transfer.
3. Dean/Chairperson/Director of previous Diagnostic Medical Sonography program must provide a letter of eligibility for progression in previous Diagnostic Medical Sonography program.
4. Must comply with all program policies and requirements at NW-SCC (including, but not limited to the program, progression policy, Diagnostic Medical Sonography progression policy, and reinstatement policy).
5. Complete at least 25% of the Diagnostic Medical Sonography program required courses for degree at NW-SCC.
6. Must meet acceptability criteria for placement at all clinical agencies for clinical experiences.
7. Acceptance of transfer students into the Diagnostic Medical Sonography program is limited by the number of faculty and clinical agencies available. Meeting minimal standards does not guarantee acceptance.
8. ACCS Diagnostic Medical Sonography Curriculum courses will be transferred without review of the course syllabus.
9. Submit an application requesting transfer to the Diagnostic Medical Sonography Program by the deadline published by the program.

PROGRAM REQUIREMENTS
After acceptance each student must:
1. Submit completed medical examination forms (at student expense) that provide evidence that the student is free of communicable disease and chemical dependency, and is physically and psychologically able to participate fully in both classroom and clinical aspects of the program. The Health Studies Faculty reserves the right to require at any time (at student expense) an additional medical examination in order to evaluate the student’s state of physical, mental, and/or emotional health such as during pregnancy, infectious diseases, interference with mobility, emotional stability, chemical dependence, etc. When an examination or treatment is required, written proof must be provided by the physician attesting to the student’s ability to carry out both classroom and clinical requirements of the program.

NOTE: Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by any clinical agency.

2. Meet the Essential Functions with or without reasonable accommodations. These functions relate to the physical, mental, and emotional capabilities of the prospective students and are available in writing from the Health Studies Division or individual programs. Additional health criteria may be required by clinical agencies.
3. Purchase regulation uniforms and specified accessories.
4. Participate in, successfully complete, and pay for course card in cardiopulmonary resuscitation at the health care provider level (BLS) by the American Heart Association through the NW-SCC Health Studies Division during the first semester of the program.
5. Receive certain immunizations/vaccinations at the student’s expense.
6. Purchase professional liability insurance through the College (attached fee).
7. Participate in and pay for periodic standardized tests (if applicable).
8. Participate in and pay for substance abuse testing as directed by the Health Studies Division.
9. Participate in and pay for background checks as directed by the Health Studies Division.

It is recommended that each student carry health insurance.

PROGRAM PROGRESSION POLICY:
In order to continue in the diagnostic medical sonography program, the student must:
1. Complete all required coursework from each previous semester with a grade of C or higher.
2. Maintain a 2.0 cumulative GPA at NW-SCC.

Please note: The Grading Scale for all Diagnostic Medical Sonography Courses is:
- A = 90 – 100
- B = 80 – 89
- C = 75 – 79
- D = 60 – 74
- F = 59 and below

3. Be accepted by all clinical agencies for clinical experiences. If a student is dismissed from any clinical agency, the student will be dismissed from the program. Depending on the issue, the student may be withdrawn or receive a failing clinical grade.
4. Earn a satisfactory clinical evaluation in all diagnostic medical sonography courses with a clinical component.
5. Maintain ability to meet essential functions for the program with or without reasonable accommodations.
7. Maintain an adequate level of health, including but not limited to, annual physical examination, annual PPD, vaccinations, and freedom from chemical dependency and/or mental disorder.

A student that has an unsuccessful attempt in a sonography course (W, I, D, or F) cannot progress in the diagnostic medical sonography sequence until the course is completed successfully. Course repetition will be based on instructor availability and program resources.

DIAGNOSTIC MEDICAL SONOGRAPHY PROGRESSION POLICY
In order to progress in the diagnostic medical sonography program, the following policy should be followed:
1. A total of two unsuccessful attempts in two separate semesters (D, F, or W) in the diagnostic medical sonography program will result in dismissal from the program.
2. A student may be reinstated to the diagnostic medical sonography program only one time. The reinstatement is not guaranteed due to limitations in clinical spaces. All diagnostic medical sonography admission standards must be met.

3. A student must have a 2.0 cumulative GPA at the current institution for reinstatement.

4. If a student has a documented extenuating circumstance that should be considered related to a withdrawal or failure, then the student may request a hearing before the Admission Committee or other appropriate college committee for a decision on repeating a course or readmission to the program.

**REINSTATEMENT POLICY:**

Definition or reinstatement: Students who have a withdrawal or failure in a diagnostic medical sonography course and are eligible to return to that course will be considered for reinstatement to the program.

1. Students who desire to be reinstated following non-progression must schedule an appointment with a diagnostic medical sonography faculty advisor to discuss reinstatement.

2. A student must request reinstatement within one year from the term of non-progression to be eligible for reinstatement.

3. In order to be eligible for reinstatement, the student must:
   a) Apply for readmission to the College if not currently enrolled;
   b) Receive unconditional admission status from the College;
   c) Demonstrate a 2.0 GPA in the Diagnostic Medical Sonography Program;
   d) Have no more than one non-progression since program admission;
   e) Submit application requesting reinstatement to the program by the deadline
   f) Demonstrate the ability to meet essential functions for the diagnostic medical sonography program with or without reasonable accommodations;
   g) Demonstrate competency in previous diagnostic medical sonography courses by those students who have been out of progression for greater than one semester (This may be evaluated by testing and/or skills validation);
   h) Be accepted by all clinical agencies for clinical experiences;
   i) Demonstrate current American Heart Association CPR completion at the Health Care Provider level;

4. Students dismissed from the NW-SCC Diagnostic Medical Sonography program for disciplinary reasons and/or unsafe patient care in the clinical area will not be allowed reinstatement to the program. The student may reapply as a new student to the NW-SCC Diagnostic Medical Sonography program after the period of two years have lapsed unless the unsafe action resulted in actual harm or injury to self or others. In such cases, and in cases of dismissal due to criminal background or substance abuse, students may no longer return to the program.

5. Reinstatement to the Diagnostic Medical Sonography program is not guaranteed and will only be allowed one time;

6. Reinstatement will be denied due to, but not limited to, any of the following circumstances:
   a) Grade point average is less than 2.0 from courses completed at the current institution;
   b) Refusal by any clinical agency to accept the student for clinical experiences;
   c) Classroom, laboratory, or clinical space unavailability;
   d) more than twelve months have lapsed since the student has completed diagnostic medical sonography courses in a term will be considered one attempt.

**STANDARDS OF CONDUCT:**

The Diagnostic Medical Sonography student shall comply with the standards that determine acceptable behavior of a diagnostic medical sonographer. Failure to comply with any of these standards while in any health studies program constitutes grounds for dismissal from the program.

The following examples of behavior may be grounds for dismissal from a Health Studies Program or for certification/licensure application. Any individual who:

1. Is guilty of fraud or deceit in procuring or attempting to procure a license.
2. Is guilty of a crime involving moral turpitude or of gross immorality that would tend to bring reproach upon the profession.
3. Is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit-forming drugs to such an extent as to render the licensee unsafe or unreliable.
4. Is mentally incompetent.
5. Is guilty of unprofessional conduct of a character likely to deceive, defraud, or injure the public in matters pertaining to health.
6. Has willfully or repeatedly violated any of the provisions for standards of conduct related to the profession.
7. Has been convicted of a felony.
8. Has been convicted of any violation of a Federal or State law relating to controlled substances.
9. Has any other reasons authorized by law.
10. Has been placed on a State and/or Federal abuse registry.
11. Has been court martialed or disciplined or administratively discharged by the military.

Students who have demonstrated any of the behaviors prior to or during attendance of the program may have to provide appropriate explanatory documentation with the certification/licensing agency board. Any concerns related to the above should be discussed with a program advisor.

A total of two unsuccessful attempts (D, F, or Withdrawal) in diagnostic medical sonography courses will result in dismissal from the program. Withdrawal and/or a D or F in one or more courses in a term will be considered one attempt.
ANTICIPATED EXPENSES:
As a student in the program, you can anticipate certain necessary expenses. First of all, the tuition rate is the same as that for other NW-SCC students, but Diagnostic Medical Sonography Program students will incur other expenses, which are listed below. Note that the amounts listed are approximations and are subject to change. The list may not include all items, but any additional would be disclosed to students upon admission to the program.

Books and on-line resources $1,600.00
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Clinical ID Badges $20.00
Drug Screening $80.00
Liability Insurance $40.00
Background Checks $75.00

NOTICE: In addition to the expenses listed, you are responsible for transportation, meals, health care expenses, any liability incurred during and while traveling to and/or from educational experiences.

Diagnostic Medical Sonography 510910 MDMS Associate in Applied Science Degree
The Associate in Applied Science Degree in Diagnostic Medical Sonography is a four-semester program beginning upon admission into the Diagnostic Medical Sonography program, which prepares the graduate to sit for certification. Pre-requisite courses must be completed prior to admission to the program.

Pre-requisites

<table>
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<tr>
<th>Course</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>ENG 101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 100 Intermediate College Algebra or higher</td>
<td>3</td>
</tr>
<tr>
<td>BIO 201 Human Anatomy &amp; Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 115 Technical Physics*</td>
<td>4</td>
</tr>
<tr>
<td>PSY 200/210 General Psychology or Human Growth &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>Humanities Electives Choose from: ART 100, MUS 101, PHL106/206, REL 100/151/152, or SPA 101</td>
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Semester I (Fall)

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<th>Course</th>
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<td>DMS 202 Foundations of Sonography</td>
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<td>DMS 204 Sonographic Anatomy</td>
<td>3</td>
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<td>DMS 205 Abdominal Sonography</td>
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<td>DMS 216 Sonographic Principles &amp; Instrumentation</td>
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Semester II (Spring)

<table>
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<tr>
<td>DMS 206 Gynecologic Sonography</td>
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<tr>
<td>DMS 207 Abdominal Pathology</td>
<td>3</td>
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<td>DMS 217 Sonographic Principles &amp; Instrumentation Lab</td>
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<td>DMS 220 Obstetrical Sonography I</td>
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<tr>
<td>DMS 230 Sonography Preceptorship II</td>
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Semester III (Summer)

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<tr>
<td>DMS 221 Obstetrical Sonography II</td>
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<tr>
<td>DMS 225 Superficial Parts</td>
<td>1</td>
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<tr>
<td>DMS 231 Sonography Preceptorship III</td>
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<tr>
<td>DMS 240 Sonography Seminar I</td>
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Semester IV (Fall)

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<td>DMS 232 Sonography Preceptorship IV</td>
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<tr>
<td>DMS 241 Sonography Seminar II</td>
<td>3</td>
</tr>
<tr>
<td>DMS 245 Sonography Case Presentation</td>
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<tr>
<td>DMS 250 Introduction to Advanced Sonography</td>
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</table>

Total Semester Credit Hours 71
HEALTH STUDIES PROGRAMS
Northwest-Shoals Community College     2019-2020

Emergency Medical Services  510904 EMP
Associate in Applied Science Degree

Available: Shoals Campus
Advisors:  M. Simpson (5435)  msimpson@nwscc.edu
T. Oyen (5437)  oyen@nwscc.edu
C. DeMorse (5336)  cdemorse@nwscc.edu
J. Flannagin (5334)  justin.flannagin@nwscc.edu

NOTICE: The Alabama Community College System Standardized Curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed.

EMS admission criteria, the progression guidelines, and the curriculum are currently under review and are subject to change. Please see the EMS Program Director with any questions or concerns.

The Division of Health Studies offers the Emergency Medical Services Program. The program is designed to prepare qualified applicants in basic and advanced emergency care in clinical and in field environments. Graduates qualify for employment with fire and rescue departments, ambulance services, industries, and emergency departments within medical facilities. EMS education spans four levels of competency. Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), and Paramedic. Each level of competency meets or exceeds standards identified in the National Emergency Medical Services Education Standards by the National Highway Traffic Safety Administration and by the State of Alabama Department of Public Health.

Students may enroll in the EMS program with the intention of completing only the courses required for each level of EMS education. Students are not required to complete EMR for admission into the EMT program. Upon successful completion of each level, the student will be eligible to apply for registration with the National Registry of EMTs. Graduation from the program, however, does not guarantee licensure from the Alabama Department of Public Health Office of EMS and Trauma or the ability to take the National Registry of EMT examination.

The Emergency Medical Services Program supports the philosophy and purpose of the College and serves its community by preparing entry level Emergency Medical Services personnel in varied health settings. The EMS Program Director, Medical Director, EMS Faculty, and the EMS Advisory Committee have the responsibility for administering and evaluating the Emergency Medical Services Program according to policies and guidelines established by the College, the Alabama Department of Public Health, and the Commission on Accreditation of Allied Health Education Programs. The Emergency Medical Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CoAEMSP). To receive an Associate of Applied Science Degree in Emergency Medical Services, the student must complete the EMT and Paramedic certificate levels and all academic core curriculum course requirements.

Because EMS programs contain a clinical component, students are required to meet additional health requirements as well as the “Essential Functions of the EMT.” Questions regarding the EMS program should be directed to the Program Director at 256.331.5336

The Purpose of the Emergency Medical Services Program is to:
1. Prepare entry level Emergency Services Personnel who utilize appropriate knowledge and skills to deliver safe, competent care to clients of all ages
2. Foster learning as a lifelong process to remain competent
3. Prepare entry level Emergency Services Personnel who contribute to society as citizens and members within the discipline of EMS
4. Provide education at the certificate and the Associate Degree level, which forms a basis for entry into baccalaureate EMS education

APPROVALS AND ACCREDITATION
The Emergency Medical Services Program is state approved by the Alabama Department of Public Health Office of EMS and Trauma.

To contact Alabama Department of Public Health Office of EMS and Trauma:
201 Monroe Street, Montgomery, Alabama 36104
Telephone: 334.206.5383 Fax: 334.206.5260
http://www.adph.org/ems/

The Emergency Medical Services Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Education Programs for the Emergency Medical Services Professions (CoAEMSP). To contact CoAEMSP:
8301 Lakeview Parkway Suite 111-312
Rowlett, TX 75088
Telephone: 214-703-8445 Fax: 214-703-8992
www.coaemsp.org

ADMISSION PROCEDURES AND REQUIREMENTS
Admission to the EMS program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. Preference will be given to graduates/students of Northwest-Shoals Community College EMT and AEMT Programs. Applicants will be notified by the EMS office of acceptance into the EMS program. The College reserves the right to adjust requirements or use additional criteria to determine admission.

*A list of fees/approximate costs may be obtained from the EMS Office.*

General Admission Requirements
To be eligible to enroll in the EMS Program, a student must complete the following:
1. Unconditional admission to the College
2. Good standing with the College
3. Receipt of completed application for the Emergency Medical Services Program by specified deadline. (Late applications may be considered dependent upon faculty and clinical facilities that are available)
4. Be a high school graduate or hold a GED; Complete the ACT or COMPASS/ASSET placement test

5. Meet the Essential Functions for the Emergency Medical Services Program

The student’s ability to comply with the Essential Functions may be evaluated by the EMS faculty at any time that a student’s ability to do so is in question.

Upon admission, an individual who discloses a disability can request reasonable accommodations. Individuals will be asked to provide documentation of the disability in order to assist with the provision of appropriate reasonable accommodations. The respective College will provide reasonable accommodations but is not required to substantially alter the requirements or nature of the program or provide accommodations that inflict an undue burden on the respective College. In order to be admitted, one must be able to perform all of the essential functions with or without reasonable accommodations. If an individual’s health changes during the program of learning so that the essential functions cannot be met with or without reasonable accommodations, the student will be withdrawn from the EMS program. The EMS faculty reserves the right at any time to require an additional medical examination at the student’s expense in order to assist with the evaluation of the student’s ability to perform the essential functions.

Requests for reasonable accommodations should be directed to the ADA Coordinator, Tom Carter, at 256.331.5263 or tom.carter@nwscc.edu

6. Be at least 18 years old (younger students who meet certain conditions may be able to enroll with the permission of the Program Director)

7. Possess a valid driver’s license

8. Hold current BLS - CPR course completion at the provider level. American Red Cross course equivalent is Professional Rescuer. Community CPR is not acceptable. Students will be allowed to enter the EMT program without CPR completion provided he/she enrolls in a CPR class prior to beginning clinical rotations. The CPR course is provided by the EMS Department;

9. Present evidence of health insurance or sign a waiver

10. Complete EMS 107 Emergency Vehicle Operator Course to operate an ambulance in the State of Alabama. Students must successfully complete this course and meet additional requirements by the Alabama Department of Public Health Office of EMS and Trauma. The EVOC course is provided by the EMS Department

Meeting minimal requirements does not guarantee acceptance. A list of anticipated expenses can be obtained from the EMS Program Office. Students are responsible for transportation, meals, health care expenses, and any liability incurred during and while traveling to and/or from educational experiences.

Unconditional Admission to the EMT Program

In addition to General Admission Requirements the student must:

1. Submit EMS Program Application and receive approval by the EMS Program Director
2. Successfully complete Background Check with no findings
3. Complete ASSET/COMPASS/ACT testing
4. Register and submit payment for courses
5. Attend and complete EMS Program Orientation

Unconditional Admission to the AEMT Program

In addition to General Admission Requirements the student must:

1. Submit EMS Program Application and receive approval by the EMS Program Director
2. Successfully complete Background Check with no findings
3. Complete ASSET/COMPASS/ACT testing
4. Register and submit payment for courses
5. Complete EMT Program
6. Successfully complete NREMT Examination
7. Hold Alabama EMT licensure
8. Attend and complete EMS Program Orientation

Unconditional Admission to the Paramedic Orientation

In addition to General Admission Requirements the student must:

1. Submit EMS Program Application and receive approval by the EMS Program Director
2. Successfully complete Background Check with no findings
3. Complete ASSET/COMPASS/ACT testing
4. Register and submit payment for courses
5. Hold Alabama EMT licensure
6. Completed EMS 189 or BIO 201 with a grade of “C” or better
7. Completed EMS Program Entrance Examination (Fee is associated with this examination)
8. Have a minimum of 2.0 for EMS coursework and required academic coursework for the last 24 hours
9. Attend and complete EMS Program Orientation
10. If applicable, complete any required remedial coursework for Math 100 and English 101

Conditional Admission may be granted based upon the discretion of the EMS Program Director. Students allowed to enroll with conditional admission will be assigned to the current cohort for the date when all requirements have been met.

Upon successful completion of each level, the student will be eligible to apply for registration with the National Registry of EMTs. Graduation from the program, however, does not guarantee licensure from the Alabama Department of Public Health Office of EMS and Trauma or the ability to take the National Registry of EMT examination.

Paramedic program students can complete requirements for a Certificate or AAS Degree.

PARAMEDIC CERTIFICATE OPTION

In addition to the general admission requirements, students admitted to the Paramedic certificate program must:

1. Complete ENG 101 and MTH 116 or higher with a grade of “C” or better prior to the last semester of the Paramedic program
2. Students electing to take BIO 201 must also complete BIO 202 with a grade of “D” or better for the certificate option
AAS DEGREE OPTION

In addition to the general admission requirements, students admitted to the degree tract must:
1. Complete ENG 101 and MTH 116 or higher with a grade of “D” or better prior to the last semester of the Paramedic Program
2. Complete BIO 201 and BIO 202 with a grade of “C” or better for the AAS Degree
3. Complete additional General Education Requirements: ENG 102 or SPH 107, PSY 200, and a Humanities Elective

PROGRAM CONTINUATION

In order to continue in the EMT, Advanced EMT, or Paramedic courses, the student must complete the following:
1. Complete and submit the physical examination form and required data PRIOR to attendance at clinical. The student must present written documentation on College forms of a physical examination within the last 12 months by a licensed practicing physician. In addition, the student must:
   a. Be free from any communicable disease
   b. Possess eyesight in a minimum of one eye correctable to 20/20 vision, have approximately one hundred and eighty (180) degrees peripheral vision capability and have adequate color perception
   c. Complete a health history, verifying such information as immunization and disease history and special medical needs
   d. Receive (at student expense) necessary immunizations/tests including hepatitis vaccine
   e. Demonstrate the ability to send and receive messages
2. Meet “Essential Functions of the EMT” with or without accommodations by assigned date. A copy of these functions is available upon request
3. Purchase professional liability insurance through the College
4. Complete drug testing and/or background checks as directed by the Health Studies Division or clinical agency
5. The EMS Program grading scale is:
   100 – 90 = A
   89 – 80 = B
   79 – 75 = C
   74 – 60 = D
   59 and below = F
6. Receive a grade of “C” in each EMS or EMP course in order to continue
7. Earn a satisfactory clinical evaluation on the clinical component of any course with a clinical component
8. Be accepted by clinical agencies for clinical experiences

NOTE: Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by a clinical agency. A student who is refused use of a facility is considered refused by all agencies associated with the program. Therefore, the program is not required to find an alternative site.

TRANSFER STUDENTS

Students who wish to transfer must:
1. Meet general and unconditional admission and progression requirements for NW-SCC and the EMS program
2. Successfully complete the program:
   a. Within one year of initial entry for the EMT program (otherwise all EMT courses must be repeated)
   b. Within one year of initial entry for the Advanced EMT program (otherwise all EMT courses must be repeated)
   c. Within two years of initial entry for the Paramedic program (otherwise all Paramedic courses must be repeated)
3. Be a student in good standing with the previous institution(s)
4. Have Director of previous EMS program provide a letter of good standing in previous EMS program
5. Complete skill validation requirements
6. Provide clinical documentation (example: FISDAP or data on a signed EMS Program letterhead of previous institution) for consideration
7. Be accepted by all clinical agencies for clinical experiences

NOTE: Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by a clinical agency. A student who is refused use of a facility is considered refused by all agencies associated with the program. Therefore, the program is not required to find an alternative site.

PROGRAM PROGRESSION POLICY

In order to continue in the EMS program, the student must:
1. Complete all required general education courses according to The Alabama College System EMS Education curriculum
2. Maintain a grade of “C” or better in all required EMS courses and maintain a 2.0 GPA at NW-SCC
3. Be accepted by all clinical agencies for clinical experiences
4. Earn a satisfactory clinical evaluation in all EMS courses
5. Maintain ability to meet essential functions for EMS with or without reasonable accommodations
6. Maintain current CPR at the health care provider level
7. Maintain an adequate level of health including but not limited to annual PPD, and freedom from chemical dependency and/ or mental disorder
8. Successfully complete the EMS education program:
   a. Within one year of initial entry for the EMT program (otherwise all EMT courses must be repeated)
   b. Within one year of initial entry for the Advanced EMT program (otherwise all EMT courses must be repeated)
   c. Within two years of initial entry for the Paramedic program (otherwise all Paramedic course must be repeated)

A student that has an unsuccessful attempt in an EMS course (W, D, or F) cannot progress until the course is completed successfully. Course repetition will be based on instructor availability and program resources. Withdrawal and/or a D or F in one or more EMS courses in a term is considered one unsuccessful attempt. A grade of “I” may prevent the student from progression and will be evaluated by the faculty, program director, and medical director.

REINSTATEMENT (READMISSION) POLICY

In order to continue in the EMS program the student must:
1. Students whose progression through EMS is interrupted and who desire to be reinstated in the program must schedule an appointment with an EMS faculty advisor to discuss reinstatement
   In order to be eligible for reinstatement, the following criteria must be met:
   a. Apply for readmission to the college if not currently enrolled
   b. Submit application requesting reinstatement to the EMS program
c. Request reinstatement within one year from the term of withdrawal or failure
d. Demonstrate competency in previous EMS courses. This may be evaluated by testing and/or skills validation
e. Adhere to EMS curriculum and/or program policies and procedures effective at the point of reinstatement
2. Reinstatement to the EMS program is not guaranteed
3. Reinstatement will be denied due to, but not limited to any of the following circumstances:
a. Grade point average is less than 2.0 from courses completed at the current institution
b. Refusal by clinical agencies to accept the student for clinical experiences
c. Twelve months have elapsed since the student was enrolled in an EMS course
d. Student has been dismissed from the program for a violation of the College/EMS Program handbook.
e. Student dismissed from the program for disciplinary reasons and/or unsafe/unsatisfactory client care
4. Students who are unsuccessful on the third (3rd) admission will be dismissed from the EMS program
5. Students who have three unsuccessful attempts in any EMS program course may apply for admission as a new student provided:
a. the student meets current entry requirements
b. at least two years have elapsed since the student’s dismissal from the last program and
c. the student was not dismissed from the previous program for disciplinary reasons or for unsafe/unsatisfactory client care in the clinical area

STANDARDS OF CONDUCT
The EMS student shall comply with the standards that determine acceptable behavior of a healthcare professional in accordance with the Alabama Department of Public Health Office of EMS and Trauma, National Registry of EMTs, and EMS Program.

FAILURE TO COMPLY WITH ANY OF THESE 7 STANDARDS WHILE IN THE EMS PROGRAM CONSTITUTES GROUNDS FOR DISMISSAL FROM THE PROGRAM

The following examples of behavior may be grounds for dismissal from the EMS program or for licensure application review by the Alabama Department of Public Health Office of EMS and Trauma. Any individual who:
1. Is guilty of fraud or deceit in procuring or attempting to procure a license
2. Is guilty of a crime involving moral turpitude or of gross immorality that would tend to bring reproach upon the EMS profession
3. Is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit-forming drugs to such an extent as to render the licensee unsafe or unreliable
4. Is mentally incompetent
5. Is guilty of unprofessional conduct of a character likely to deceive, defraud, or injure the public in matters pertaining to health
6. Has willfully or repeatedly violated any of the provisions of this act
7. Has been convicted of a felony
8. Has been convicted of any violation of a Federal or State law relating to controlled substances
9. Has any other reasons authorized by law
10. Has been placed on a State and/or Federal abuse registry
11. Has been court martialed or disciplined or administratively discharged by the military

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

ANTICIPATED EXPENSES
As a student in the EMS program, you can anticipate certain necessary expenses. First of all, the tuition rate is the same as that for other NW-SCC students, but health studies students will incur other expenses, which are listed below. Note that the amounts listed are approximations and are subject to change without notice.

Textbooks $ 1500.00 (includes EMT, AEMT, Paramedic)
Standardized Tests $ 50.00
Computer Software (FISDAP) $ 84.00
Annual Physical Exam, TB Test & Shots $ 750.00
Uniforms and Small Equipment $ 300.00
Clinical Kit $ 85.00
Clinical ID Badges $ 5.00 each semester enrolled
Drug Screening $ 80.00
Liability Insurance $ 80.00 each semester enrolled
Licensure Application Fee $12.00
NREMT Examination for EMT $ 80.00
NREMT Examination for AEMT $ 115.00
NREMT Examination for Paramedic $ 125.00
Background Checks $ 85.00
Tuition at published rate for courses in program of study
Course completion/certification cards $35.00
Parking Decal $ 20.00

NOTICE: In addition to the expenses listed, you are responsible for transportation, meals, health care expenses, any liability incurred during and while traveling to and/or from educational experiences.

Emergency Medical Services
EMT Certificate

510904 EMT

The EMT Certificate is one semester in length and consists of the following courses, which are taught concurrently and must be successfully completed for eligibility to apply for registration for examination with NREMT.

EMS 118 Emergency Medical Technician ..................9
EMS 119 Emergency Medical Technician Clinical ..........1

Total Semester Credit Hours ..................................10

NOTE: EMS 100 and EMS 107 are not required for graduation. EMS 100, or its equivalent, is required for clinical rotations. EMS 107 is required to operate an ambulance upon successfully obtaining EMT licensure.
Emergency Medical Services

AEMT Certificate 510904 EMA

The AEMT Certificate is one semester in length and consists of the following courses, which are taught concurrently and must be successfully completed for eligibility to apply for registration for examination with NREMT. Students must have completed EMT coursework with a grade of "C" or better for enrollment eligibility for the AEMT program.

EMS 155 Advanced EMT Theory and Lab ............................... 6
EMS 156 Advanced EMT Clinical Competencies .................... 2

Total Semester Credit Hours .............................................. 8

NOTE: Students intending to complete Paramedic training are encouraged to complete EMS 189 or BIO 201. Students are required to have Alabama EMT licensure to complete EMS 156.

Emergency Medical Services

Paramedic Certificate 510904 EMS

The Paramedic Certificate consists of the following courses, which are taught concurrently and must be successfully completed for eligibility to apply for registration for examination with NREMT.

EMS 118 Emergency Medical Technician ............................ 9
EMS 119 EMT Clinical ................................................. 1
EMS 240 Paramedic Operations ......................................... 2
EMS 241 Paramedic Cardiology ......................................... 3
EMS 242 Paramedic Patient Assessment ............................. 2
EMS 257 Paramedic Applied Pharmacology ...................... 2
EMS 244 Paramedic Clinical I ......................................... 1
MTH 116 Mathematical Applications or higher ..................... 3
BIO 202 Human Anatomy and Physiology II ...................... 4
EMS 253 Paramedic Transition to the
Workforce ........................................................................... 2
EMS 254 Advanced Competencies for
Paramedic ............................................................................. 2
EMS 255 Paramedic Field Preceptorship ......................... 5
EMS 256 Paramedic Team Leadership .............................. 1

Total .................................................................................. 51

*Students completing EMS 189 are not required to complete BIO 202 for the Paramedic Certificate Program.

Emergency Medical Services

Associate in Applied Science 510904 EMP

The Associate in Applied Science Degree is completed in four (4) semesters to include EMT consists of the following courses, which are taught concurrently and must be successfully completed for eligibility to apply for registration for examination with NREMT.

EMS 118 Emergency Medical Technician ............................ 9
EMS 119 Emergency Medical Technician Clinical .................. 1

*Successful completion of BIO201 required PRIOR to admission

BIO 201 Human Anatomy and Physiology I ....................... 4
EMS 240 Paramedic Operations ......................................... 2
EMS 241 Paramedic Cardiology ......................................... 3
EMS 242 Paramedic Patient Assessment ............................. 2
EMS 257 Paramedic Applied Pharmacology ...................... 2
EMS 244 Paramedic Clinical I ......................................... 1
MTH 116 Mathematical Applications or higher ..................... 3
BIO 202 Human Anatomy and Physiology II ...................... 4
EMS 245 Paramedic Medical Emergencies ......................... 3
EMS 246 Paramedic Trauma Management ......................... 3
EMS 247 Paramedic Special Populations ........................... 2
EMS 248 Paramedic Clinical II ......................................... 3
ENG 101 English Composition ......................................... 3
PSY 200 General Psychology ........................................... 3
EMS 253 Paramedic Transition to the
Workforce ........................................................................... 2
EMS 254 Advanced Competencies for
Paramedic ............................................................................. 2
EMS 255 Paramedic Field Preceptorship ......................... 5
EMS 256 Paramedic Team Leadership .............................. 1
SPH 107 Fundamentals of Public Speaking ....................... 3

*Fine Arts/Humanities Elective ......................................... 3

Total .................................................................................. 64

NOTE: All clinical hours for all clinical courses are minimum clock hours. Students are still required to achieve minimum competencies in each class. Additional may be required to achieve minimum competency.

*Direct to Paramedic track requires all academic coursework for the AAS to be completed prior to EMS admission. See program director for additional information.

**Computer competency skills are embedded within one or more courses required in this curriculum.
Medical Assisting Technology  510801 MAT
Associate in Applied Science Degree
Available  Shoals Campus
Advisors:  M. Peebles (8074) mpeebles@nwscc.edu
          K. McBay (8059) katherine.mcbay@nwscc.edu

General Information
Medical Assistants are multi-skilled health professionals specifically educated to work in ambulatory settings performing administrative and clinical duties. The profession of medical assisting directly influences the public’s health and well-being, and requires mastery of a complex body of knowledge and specialized skills, formal education and practical experience that serve as standards for entry into the profession.

Program Description
The Medical Assisting curriculum covers administrative duties such as scheduling and receiving patients, preparing and maintaining medical records, performing secretarial duties, serving as a liaison between the physician and other individuals, and managing practice finances. Clinical duties include preparing the patient for examination, taking patient histories and vital signs, performing first aid and CPR, assisting the physician with examinations and treatments, performing routine laboratory procedures and diagnostic tests, preparing and administering medications as directed by the physician and performing electrocardiograms.

Graduates will be eligible to apply to sit for the for the Registered Medical Assistant Examination or the Certified Medical Assistant Examination. After successful completion of the exam, the individual will be a Registered or Certified Medical Assistant.

Goals and Objectives:
1. To prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains.
2. To prepare the student to work in a physician’s office or medical clinic where they can successfully utilize administrative and clinical skills and techniques.
3. To teach the student to be professional at all times.
4. To teach the student in a manner that is applicable to “practical” work situations and encourages the development of critical thinking skills.
5. To teach the student appropriate knowledge and attitudes concerning the legal and ethical responsibilities of the profession.
6. To teach the student how to function as a valuable member of the health care team.
7. To encourage all students to sit for a nationally recognized credential such as the RMA or CMA.
8. To encourage continuing education so the student will be aware of continuous changes in the health care field.

The Medical Assisting Program offers some online and on campus courses. Laboratory/Clinical sections of all MAT classes must be completed on campus, or at the clinical site. Laboratory section assignments will be made based on space availability and may be day or evening.

Students will indicate on the program application the option that they would like to choose: Medical Assisting Associate degree plan, Medical Billing & Coding Certificate, or Phlebotomy Certificate.

Approvals and Accreditations
The Northwest-Shoals Community College Medical Assisting Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

Medical Assisting Education Review Board
20 N. Wacker Drive, Suite 1575
Chicago, Illinois 60606
1-800-228-2262
www.maerb.org

Admission Requirements
Applicants Must:
1. Meet all the general admission requirements of NW-SCC.
2. Submit a NW-SCC application to the Admissions Office.
3. Submit a program application to the Administrative Assistant to Medical Assisting Technology Department in Building 110 (by announced department deadline).
4. Possess a minimum of 2.5 cumulative GPA on a 4.0 scale.
5. Must be eligible to take English 101 (English Composition I) and at least Math 116 (Technical Math).
6. Possess Essential Functions required for Medical Assisting Program (See Essential Functions).

Selection and Notification
1. The Medical Assisting Program admits each fall semester; admission for spring semester is based on availability in classes.
2. Students are selected on the basis of completion of all program requirements prior to deadline. If the number of qualified applications exceeds the number of spaces available in the Medical Assisting Program, the cumulative college GPA or the ACT or Compass score will be used to rank applicants for admission.
3. Program applications will be reviewed for completion of program admission requirements. Written notification of the outcome of each application will be mailed to the student at the address provided on the application.
4. Students selected must respond, confirming acceptance within ten (10) days of the postmarked date of the acceptance letter and declare MAT as their program major. A student who fails to respond to their acceptance letter, and or fails to declare MAT as their major, will forfeit his/her place in the class. If the student has a felony conviction or has pled guilty to a felony or has any drug or alcohol offense on the required background check completed the first semester of the program or is convicted during the program, he or she will be dismissed from the program.
5. Students selected for acceptance must attend the mandatory orientation session. Failure to do so may result in forfeiture of their space in the class.
Program Expectations
Students admitted into the Medical Assisting Program are expected to comply with all program competencies of the Medical Assisting Program.

Required competencies:
1. Administrative competencies: perform clerical functions, perform bookkeeping procedures, process insurance claims.
2. Clinical competencies: fundamental procedures, specimen collection, diagnostic testing, patient care.

Upon Admission
1. Medical Assisting students are required to submit physical examination and essential function forms, including proof of Hepatitis B and other vaccinations, as well as a two part TB skin test unless student receives yearly TB skin test. The physical and vaccinations required will be the student's expense.
2. Students are required to submit proof of current CPR certification before they are allowed in clinical facilities. Only CPR courses that provide certification through the American Heart Association will be accepted.
3. Accident and liability insurance, available through the College, is required of all Medical Assisting students. The cost of the insurance will be added as a course fee.
4. Medical Assisting students are required to undergo Background Screening and Drug Testing. The cost of the drug screen will be added as a course fee to one of the medical assisting courses. The cost of the Background Screening will be the student’s responsibility. Drug Screens and Background Screening will be administered as directed by Medical Assisting Department.
6. Students must present evidence of health insurance or sign a waiver.

Progression
1. Students must maintain a grade of "C" or better in Area V Technical Concentration and all required courses.
2. Math must be completed prior to taking MAT 211, Clinical Procedures 11 for the medical assistant. Students will have four attempts to complete a drug calculation test with a score of at least 90.
3. Maintain a grade of "C" or better in all required general education and medical assisting courses and maintain a 2.0 cumulative GPA at NW-SCC.
4. Students must be accepted by clinical agencies for all clinical experiences. Must complete 225 unpaid clinical hours during the last semester in the Medical Assisting program in facility assigned by Medical Assisting Department (hours completed Monday – Friday according to facility hours, can not guarantee night and weekend hours).
5. Students must perform a satisfactory evaluation on all clinical skills.
6. Must maintain current CPR. AHA Health Care Provider
7. Maintain ability to meet essential functions for medical assisting with or without reasonable accommodations.
8. Maintain an adequate level of health including freedom from chemical dependency and/or mental disorder.
9. Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by a clinical agency. A student who is refused use of a facility is considered refused by all agencies associated with the program. Therefore, the program is not required to find an alternative site.

Readmission to Program
Students who withdraw, or are dismissed from the program, must apply for re-admission. Students will be readmitted one time only.

Work Experience
College credit is not awarded for work experience in the healthcare field.

THE MEDICAL ASSISTING TECHNOLOGY PROGRAM

ESSENTIAL FUNCTIONS
The Alabama Community College System endorses the American with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.

Physical, cognitive, psychomotor, affective and social abilities are required in unique combinations to provide safe and effective medical care for patients. The applicant/student must be able to meet the essential functions with or without reasonable accommodations throughout the program of learning. Admission, progression, and graduation are contingent upon one’s ability to demonstrate the essential functions delineated for the Medical Assisting Technology program with or without reasonable accommodations. The Medical Assisting Technology program and/or its affiliated clinical sites may identify additional essential functions. The Medical Assisting Technology program reserves the right to amend the essential functions as deemed necessary.

In order to be admitted and progress in the Medical Assisting Technology program, one must possess a functional level of ability to perform the duties required of a medical assistant. Admission or progression may be denied if a student is unable to demonstrate the essential functions with or without reasonable accommodations.

Any reasonable accommodations made will be determined and applied to the respective Medical Assisting Technology program and may vary from reasonable accommodations made by healthcare employers.

The essential functions delineated below are necessary for the Medical Assisting program admission, progression, and graduation and for the provision of safe and effective medical care. The essential functions include but are not limited to:

1) Sensory Perception
   a) Visual
      i) Observe and discern subtle changes in physical conditions and the environment
      ii) Visualize different color spectrums and color changes
      iii) Read fine print in varying levels of light
      iv) Read for prolonged periods of time
      v) Read cursive writing
      vi) Read at varying distances
      vii) Read data/information displayed on monitors/equipment
   b) Auditory
      i) Interpret monitoring devices
ii) Distinguish muffled sounds heard through a stethoscope
iii) Hear and discriminate high and low frequency sounds produced by the body and the environment
iv) Effectively hear to communicate with others
c) Tactile
i) Discern tremors, vibrations, pulses, textures, temperature, shapes, size, location and other physical characteristics
d) Olfactory
i) Detect body odors and odors in the environment

2) Communication/ Interpersonal Relationships
a) Verbally and in writing, engage in a two-way communication and interact effectively with others, from a variety of social, emotional, cultural and intellectual backgrounds
b) Work effectively in groups
c) Work effectively by one's self
d) Discern and interpret nonverbal communication
e) Express one’s ideas and feelings clearly
f) Communicate with others accurately in a timely manner
g) Obtain communications from a computer

3) Cognitive/Critical Thinking
a) Effectively read, write and comprehend the English language
b) Consistently and dependably engage in the process of critical thinking in order to formulate and implement safe and ethical medical decisions in a variety of health care settings
c) Demonstrate satisfactory performance on written examinations including mathematical computations without a calculator
d) Satisfactorily achieve the program objectives
4) Motor Function
a) Handle small delicate equipment/objects without extraneous movement, contamination or destruction
b) Move, position, turn, transfer, assist with lifting or lift and carry clients without injury to clients, self or others
c) Maintain balance from any position
d) Stand on both legs
e) Coordinate hand/eye movements
f) Push/pull heavy objects without injury to client, self or others
g) Stand, bend, walk and/or sit for 6-12 hours in a clinical setting performing physical activities requiring energy without jeopardizing the safety of the client, self or others
h) Walk without a cane, walker or crutches
i) Function with hands free for medical care and transporing items
j) Transport self and client without the use of electrical devices
k) Flex, abduct and rotate all joints freely
l) Respond rapidly to emergency situations
m) Maneuver in small areas
n) Perform daily care functions for the client
o) Coordinate fine and gross motor hand movements to provide safe effective medical care
p) Calibrate/use equipment
q) Execute movement required to provide medical care in all health care settings
r) Perform CPR and physical assessment
s) Operate a computer

5) Professional Behavior
a) Convey caring, respect, sensitivity, tact, compassion, empathy, tolerance and a healthy attitude toward others
b) Demonstrate a healthy mental attitude that is age appropriate in relationship to the client
c) Handle multiple tasks concurrently
d) Perform safe, effective medical care for clients in a caring context
e) Understand and follow the policies and procedures of the College and clinical agencies
f) Understand the consequences of violating the student code of conduct
g) Understand that posing a direct threat to others is unacceptable and subjects one to discipline
h) Refrain from posing a direct threat to self or others
i) Function effectively in situations of uncertainty and stress inherent in providing medical care
j) Adapt to changing environments and situations
k) Remain free of chemical dependency
l) Report promptly to clinicians and remain as assigned at the clinical site.
m) Provide medical care in an appropriate time frame
n) Accept responsibility, accountability, and ownership of one’s actions
o) Seek supervision/consultation in a timely manner
p) Examine and modify one’s own behavior when it interferes with medical care or learning

Upon admission, an individual who discloses a disability can request reasonable accommodations. Individuals will be asked to provide documentation of the disability in order to assist with the provision of appropriate reasonable accommodations. The respective College will provide reasonable accommodations but is not required to substantially alter the requirements or nature of the program or provide accommodations that inflict an undue burden on the respective College. In order to be admitted one must be able to perform all of the essential functions with or without accommodations. If an individual’s health changes during the program of learning, so that the essential functions cannot be met with or without reasonable accommodations, the student will be withdrawn from the Medical Assisting Technology program. The Medical Assisting faculty reserves the right at any time to require additional medical examination at the student’s expense in order to assist with the evaluation of the student’s ability to perform the essential functions. Requests for reasonable accommodations should be directed to: ADA Coordinator, Tom Carter at 256.331.5263 or tom.carter@nwscc.edu
**Medical Assisting Technology** 510801 MAT

**Associate in Applied Science Degree**

Available: Shoals Campus  
M. Peebles (8074) mpeebles@nwscc.edu  
K. McBay (8059) katherine.mcbay@nwscc.edu

This degree is designed to prepare students to assist the physician in providing patient care in physician's offices, minor emergency centers, long-term care facilities, and other types of freestanding medical clinics. Medical assistants are also prepared to assume administrative roles in physician's offices, including dealing with billing protocols, coding mechanisms, and office transcription.

**Entering students are required to complete ORI 107.**

Transfer students are exempt from this requirement.

**Semester Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORI 107</td>
<td>Student Success</td>
<td>1</td>
</tr>
<tr>
<td>Area I:</td>
<td>Written Composition</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>Area II:</td>
<td>Humanities and Fine Arts</td>
<td>6-7</td>
</tr>
<tr>
<td>SPH 107</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts Elective: Choose one from among:</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>ENG 251</td>
<td>American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252</td>
<td>American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 261</td>
<td>English Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 262</td>
<td>English Literature II</td>
<td></td>
</tr>
<tr>
<td>ART 100</td>
<td>Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 101</td>
<td>Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>PHL 106</td>
<td>Introduction to Philosophy</td>
<td></td>
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<tr>
<td>PHL 206</td>
<td>Ethics and Society</td>
<td></td>
</tr>
<tr>
<td>REL 100</td>
<td>History of World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 151</td>
<td>Survey of the Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 152</td>
<td>Survey of the New Testament</td>
<td></td>
</tr>
<tr>
<td>SPA 101</td>
<td>Introductory Spanish</td>
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<tr>
<td>Area III:</td>
<td>Natural Sciences and Mathematics</td>
<td>7</td>
</tr>
<tr>
<td>MTH 116</td>
<td>Mathematical Applications OR</td>
<td>3</td>
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<tr>
<td>MTH 100</td>
<td>Intermediate College Algebra</td>
<td></td>
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<tr>
<td>BIO 103</td>
<td>Principles of Biology I or BIO 101 Intro to Biology I or BIO 220 Microbiology</td>
<td>4</td>
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<tr>
<td>Area IV:</td>
<td>History, Social and Behavioral Science</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>General Psychology</td>
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<tr>
<td>Area V:</td>
<td>Technical Concentration &amp; Requirements</td>
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<td>CIS 146</td>
<td>Microcomputer Applications</td>
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<tr>
<td>MAT 101</td>
<td>Medical Terminology</td>
<td>3</td>
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<tr>
<td>MAT 102</td>
<td>Medical Assisting Theory I</td>
<td>3</td>
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<tr>
<td>BIO 201</td>
<td>Human Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 103</td>
<td>Medical Assisting Theory II</td>
<td>3</td>
</tr>
<tr>
<td>BIO 202</td>
<td>Human Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>MAT 111</td>
<td>Clinical Procedures I for the Medical Patient</td>
<td>3</td>
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<tr>
<td>MAT 120</td>
<td>Medical Administrative Procedures I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Medical Administrative Procedures II</td>
<td>3</td>
</tr>
<tr>
<td>MAT 125</td>
<td>Laboratory Procedures I</td>
<td>3</td>
</tr>
<tr>
<td>MAT 128</td>
<td>Medical Law and Ethics</td>
<td>3</td>
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<tr>
<td>MAT 200</td>
<td>Management of Office Emergencies</td>
<td>2</td>
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<tr>
<td>MAT 211</td>
<td>Clinical Procedures II for the Medical Assistant</td>
<td>3</td>
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<tr>
<td>MAT 215</td>
<td>Laboratory Procedures II</td>
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<tr>
<td>MAT 216</td>
<td>Medical Pharmacology for the Medical Office</td>
<td>4</td>
</tr>
<tr>
<td>MAT 220</td>
<td>Medical Office Insurance</td>
<td>3</td>
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<tr>
<td>MAT 228</td>
<td>Medical Assistant Review Course</td>
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<tr>
<td>MAT 229</td>
<td>Medical Assisting Preceptorship</td>
<td>3</td>
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<tr>
<td>HIT 230</td>
<td>Medical Coding</td>
<td>3</td>
</tr>
<tr>
<td>EMS 100</td>
<td>Cardiopulmonary Resuscitation I</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours: 76**

**Phlebotomy Option** 510801 PBY

**Short-Term Certificate**

Available: Shoals Campus  
M. Peebles (8074) mpeebles@nwscc.edu  
K. McBay (8059) katherine.mcbay@nwscc.edu

The College offers a 13-hour short-term certificate in phlebotomy, which prepares the student for work in acute care settings such as major hospital laboratories, minor emergency centers, and freestanding laboratories, working under the supervision of medical laboratory technologists or laboratory managers. The course will provide both classroom and clinical experiences.

**Semester Theory Lab Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 101</td>
<td>Medical Terminology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 125</td>
<td>Laboratory Procedures I</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>MAT 215</td>
<td>Laboratory Procedures II</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>MAT 239</td>
<td>Phlebotomy Preceptorship</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EMS 100</td>
<td>Cardiopulmonary Resuscitation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours: 13**

**Medical Billing and Coding Option**

**Short-Term Certificate**

Available: Shoals Campus  
M. Peebles (8074) mpeebles@nwscc.edu  
K. McBay (8059) katherine.mcbay@nwscc.edu

Medical Billing and Coding Option short-term certificate requires the student to complete 27 semester hours in medical assisting courses. This program will prepare students for careers in the health care field by offering courses in both the clinical and administrative functions of a physician's office.

**Semester Theory Lab Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 101</td>
<td>Medical Terminology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 102</td>
<td>Medical Assisting Theory I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OR BIO 201</td>
<td>Human Anatomy and Physiology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OR BIO 202</td>
<td>Human Anatomy and Physiology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 120</td>
<td>Medical Administrative Procedures I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MAT 121</td>
<td>Medical Administrative Procedures II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Northwest-Shoals Community College  2019-2020
Registered Nursing
Associate in Applied Science Degree

Available:  Phil Campbell Campus
Advisors:  A. Bales (6298)  abales@nwscc.edu
          P. Ford (5306)  pford@nwscc.edu
          M. Hester (6237)  mhester@nwscc.edu
          B. Humphres (6207)  bhumphres@nwscc.edu
          D. Jaynes (6221)  dromans@nwscc.edu
          B. Michael (6244)  brittany.michael@nwscc.edu
          B. Sullins (6250)  britney.sullins@nwscc.edu
          R. Stewart (6256)  rebecca.stewart@nwscc.edu
          N. Thompson (6249)  nikki.thompson@nwscc.edu
          S. Thomas (6252)  shtomas@nwscc.edu
          C. Tice (6293)  ctice@nwscc.edu
          C. Tidwell (5305)  cindy@nwscc.edu

GENERAL INFORMATION
The Division of Health Studies offers a five-semester Associate Degree Nursing (ADN) program. Upon satisfactory completion, the Associate of Applied Science Degree is awarded, and the graduate is eligible to apply to take the National Council Licensure Examination (NCLEX-RN) for licensure as a Registered Nurse. Graduation from the program does not guarantee Board of Nursing approval to take the NCLEX-RN licensing examination. See Standards of Conduct section.

The Associate Degree Nursing Program supports the Philosophy and Purpose of the College and serves its community by preparing associate degree nurses for a beginning level of practice in varied health settings. The Nursing Program Director and the nursing faculty have the responsibility for administering and evaluating the Associate Degree Nursing Program according to policies and guidelines established by the College and the Alabama Board of Nursing.

The Purpose of the Associate Degree Nursing Program is to:

1. Prepare entry level Registered Nurses who utilize the nursing process to deliver safe, competent care to clients of all ages who have common health problems;
2. Foster learning as a life-long process to remain competent;
3. Prepare entry level Registered Nurses who contribute to society as citizens and members within the discipline of nursing;
4. Provide education at the Associate Degree level, which forms a basis for entry into baccalaureate nursing education.

APPROVALS AND ACCREDITATION
The Associate Degree Nursing Program is state approved by the Alabama Board of Nursing and nationally accredited by the Accreditation Commission for Education in Nursing. Each agency’s address is provided:

Alabama Board of Nursing
RSA Plaza, Ste. 250
770 Washington Ave.
Montgomery, Alabama 36104

phone: 334.242.4060, Fax: 334.242.4360
Website: http://www.abn.state.al.us

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE
Suite 850
Atlanta, Georgia 30326
phone: (404) 975-5000
Fax: 404.975.5020, Website: http://www.acenursing.org
All agencies utilized for students’ clinical experiences are accredited or licensed by their governing body.

ADMISSION PROCEDURES AND REQUIREMENTS
A generic option and a Healthcare Transition option are offered. The generic option is for students without previous nursing education. Students are admitted in the fall semester and complete five semesters of nursing.

The Healthcare Transition option is for Licensed Practical Nurses who graduated from a state-approved school of practical nursing and hold a current, active, and unencumbered Alabama Practical Nursing license or for Paramedics who hold an active Alabama Paramedic license and graduated from a CAAHEP accredited program. This license must be maintained throughout the program. Paramedics must also provide proof of current CNA certification in the state of Alabama. Proof of licensure must be on file.

NOTICE: The Alabama Community College System Standardized Curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed. The most updated information will be found in the College catalog posted on the NW-SCC website.

GENERIC OPTION
Minimum admission standards for the Associate Degree Nursing Program include:

1. Submission of a complete college application to the admissions office prior to application deadline (if not currently enrolled)
2. Unconditional admission to the College;
3. Good standing with the College;
4. Submission of a completed application for the Associate Degree Nursing Program to the NW-SCC Nursing Office by the admission deadline:
   - Fall Admission: April 15th
   - Summer Admission: October 15th
5. Minimum of 18 ACT composite score (writing component not required), National or Residual, is required, and results must be submitted to the Admissions office. There is no expiration date on ACT for the nursing application.
6. Minimum of 2.50 cumulative grade point average on a 4.0 scale based on the required academic core courses for nursing AND
   • Current or previous NW-SCC students must have a minimum 2.0 GPA or higher at NW-SCC
   • Transfer students must enter NW-SCC on clear academic status (cumulative 2.0 GPA)
   • Students without prior college courses must have a minimum 2.50 cumulative high school GPA on all high school work attempted (including 12th grade)
7. Eligibility for:
   ENG 101 and MTH 100 or higher level as determined by
college policy, and
8. Meeting the essential functions required for nursing. (See
   Essential Functions.)

The College reserves the right to adjust requirements or use
additional criteria to determine admission.

Admission to the Associate Degree Nursing Program is
competitive, and the number of students is limited by the
number of faculty and clinical facilities available. Meeting
minimal requirements does not guarantee acceptance.

The Associate Degree Nursing Program is developed as a
combined sequence of nursing and general education courses,
and students may take all required general education courses
once admitted to nursing. The general education courses are
offered on both the Shoals and Phil Campbell campuses at
NW-SCC. If you have major responsibilities such as family
or work, or if you have been away from school for several
years, or if you do not have a strong academic background,
you are encouraged to complete as many general education
courses as possible before attempting to enter the nursing
program. Completion of certain courses prior to application
results in a higher ranking score and improves the chances
of being admitted. Therefore, students typically enter the
nursing program with a minimum of two semesters of general
education classes already completed. Otherwise, the general
education courses must be taken no later than the semester
specified in the curriculum. Prior credit for general education
courses does not shorten the length of the curriculum due to
the required sequence of nursing courses.

NOTICE: Your ability to comply with the ESSENTIAL
FUNCTIONS listed may be evaluated by the nursing faculty
at anytime that your ability to do so is in question.

THE ALABAMA COMMUNITY COLLEGE SYSTEM
NURSING PROGRAM ESSENTIAL FUNCTIONS

The Alabama Community College System endorses the
Americans with Disabilities Act. In accordance with College
policy, when requested, reasonable accommodations may be
provided for individuals with disabilities.

Physical, cognitive, psychomotor, affective, and social abilities
are required in unique combinations to provide safe and
effective nursing care. The applicant/student must be able
to meet the essential functions with or without reasonable
accommodations throughout the program of learning.
Admission, progression, and graduation are contingent
upon one’s ability to demonstrate the essential functions
delineated for the nursing programs with or without reasonable
accommodations. The nursing programs and/or its affiliated
clinical agencies may identify additional essential functions.
The nursing programs reserve the right to amend the essential
functions as deemed necessary.

In order to be admitted and to progress in the nursing program
one must possess a functional level of ability to perform the
duties required of a nurse. Admission or progression may be
denied if a student is unable to demonstrate the essential
functions with or without reasonable accommodations.

The essential functions delineated are those deemed
necessary by the Alabama Community
College System nursing programs. No representation
regarding industrial standards is implied. Similarly, any
reasonable accommodations made will be determined and
applied to the respective nursing program and may vary from
reasonable accommodations made by healthcare employers.

The essential functions delineated below are necessary for
nursing program admission, progression and graduation and for
the provision of safe and effective nursing care. The essential
functions include but are not limited to the ability to:

1. Sensory Perception
   a) Visual
      i) Observe and discern subtle changes in physical
         conditions and the environment
      ii) Visualize different color spectrums and color
          changes
      iii) Read fine print in varying levels of light
      iv) Read for prolonged periods of time
      v) Read cursive writing
      vi) Read at varying distances
      vii) Read data/information displayed on monitors/ equipment
   b) Auditory
      i) Interpret monitoring devices
      ii) Distinguish muffled sounds heard through a
          stethoscope
      iii) Hear and discriminate high and low frequency
          sounds produced by the body and the
          environment
      iv) Effectively hear to communicate with others
   c) Tactile
      i) Discern tremors, vibrations, pulses, textures,
         temperature, shapes, size, location and other
         physical characteristics
   d) Olfactory
      i) Detect body odors and odors in the environment

2. Communication/Interpersonal Relationships
   a) Verbally and in writing, engage in a two-way
      communication and interact effectively with others,
      from a variety of social, emotional, cultural and
      intellectual backgrounds
   b) Work effectively in groups
   c) Work effectively independently
   d) Discern and interpret nonverbal communication
   e) Express one’s ideas and feelings clearly
   f) Communicate with others accurately in a timely
      manner
   g) Obtain communications from a computer

3. Cognitive/Critical Thinking
   a) Effectively read, write and comprehend the English
      language
   b) Consistently and dependably engage in the process
      of critical thinking in order to formulate and implement
      safe and ethical nursing decisions in a variety of
      health care settings
   c) Demonstrate satisfactory performance on written
      examinations including mathematical computations
      without a calculator
   d) Satisfactorily achieve the program objectives

4. Motor Function
   a) Handle small delicate equipment/objects without
      extraneous movement, contamination or destruction
   b) Move, position, turn, transfer, assist with lifting or lift
      and carry clients without injury to clients, self or others
   c) Maintain balance from any position
   d) Stand on both legs
e) Coordinate hand/eye movements  
f) Push/pull heavy objects without injury to client, self or others  
g) Stand, bend, walk and/or sit for 6-12 hours in a clinical setting performing physical activities requiring energy without jeopardizing the safety of the client, self or others  
h) Walk without a cane, walker or crutches  
i) Function with hands free for nursing care and transporting items  
j) Transport self and client without the use of electrical devices  
k) Flex, abduct and rotate all joints freely  
l) Respond rapidly to emergency situations  
m) Maneuver in small areas  
n) Perform daily care functions for the client  
o) Coordinate fine and gross motor hand movements to provide safe effective nursing care  
p) Calibrate/use equipment  
q) Execute movement required to provide nursing care in all health care settings  
r) Perform CPR and physical assessment  
s) Operate a computer

HEALTHCARE TRANSITION OPTION

Track One: Students who completed the Alabama Standard Concept Based Curriculum greater than one academic year of the Healthcare Transition coursework and students who did not complete the Alabama Standard Concept Based Curriculum for the PN Certificate must take NUR 209. Paramedic entry into the ADN program begins in Track One.

Track Two: Students who completed the Alabama Standard Concept Based Curriculum for the PN certificate within one academic year of the Healthcare Transition coursework are exempt from taking NUR 209.

Minimum admission standards for the Healthcare Transition option Include:

1. Submission of a complete college application to the admissions office prior to application deadline (if not currently enrolled).  
2. Unconditional admission to the college.  
3. Good standing with the college.  
4. Submission of a completed application for the Healthcare Transition option of the Associate Degree Nursing Program to the NW-SCC Nursing Office by the application deadline.  
5. A minimum of 18 ACT composite score (writing component not required), National or Residual, is required, and results must be submitted to the Admissions office. There is not expiration date on ACT for the nursing application.  
6. A minimum of 2.50 cumulative grade point average on a 4.0 scale based on the required academic core courses for nursing AND  
   * Current or previous NW-SCC students must have a minimum 2.0 GPA or higher at NW-SCC  
   * Transfer students must enter NW-SCC on clear academic status (cumulative 2.0 GPA)  
7. Have completed BIO 201, BIO 202, ENG 101, SPH 106/107, PSY 210, and MTH 100 or higher level with a grade of “C” or higher by the application deadline.  
8. Possess and maintain a current, active and unencumbered Alabama PN or Paramedic license. Proof must be on file.  
9. LPN’s must be a graduate of a state approved school of practical nursing or have a paramedic license. Proof must be on file.  
10. Paramedics must provide proof of CNA certification by the state of Alabama by the application deadline.  
11. Paramedics must be graduates of a CAAHEP accredited program. Proof must be on file.
12. MEET THE APPLICATION DEADLINE. For the Healthcare Transition (Mobility) option, the deadline is:
   **Track One**: Spring Admission-October 15
   **Track Two**: Fall Admission- May 15
   Admission to the Associate Degree Nursing Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. **Meeting minimal requirements does not guarantee acceptance.**

   (Preference will be given to graduates of Northwest-Shoals Community College’s PN or paramedic program.) Applicants will be notified in writing via email by the ADN office of acceptance into the ADN program.

   The college reserves the right to adjust requirements or use additional criteria to determine admission.

   **TRANSFER POLICY**

The transfer policy applies only to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

   **Criteria for transfer:**

   1. Must meet minimum admission standards for the Nursing program.
   2. Must possess a grade of C or better in all Nursing Program required courses taken at another institution and possess a minimum of a 2.0 cumulative GPA at the time of transfer.
   3. Dean/Director of previous nursing program must provide a letter of eligibility for progression in previous nursing program.
   4. Must comply with all program policies and requirements at accepting institution (including, but not limited to the program progression policy, nursing progression policy and reinstatement policy).
   5. Complete at least 25% of the Nursing Program required courses for degree/certificate at the accepting institution.
   6. Must meet acceptability criteria for placement at all clinical agencies for clinical experiences.
   7. Acceptance of transfer students into Nursing Programs is limited by the number of faculty and clinical facilities available. Meeting minimal standards does not guarantee acceptance.
   8. ACCS Nursing Curriculum courses will be transferred without review of the course syllabus. The last nursing course in which the student was enrolled cannot be more than 12 months old.
   9. Submit an application requesting transfer to the Nursing Program by the following deadlines:
      - Fall Semester: May 15th
      - Spring Semester- October 15th
      - Summer Semester- February 15th

   **PROGRAM REQUIREMENTS:**

   After acceptance each student must:

   1. Submit completed medical examination forms (at student expense) that provide evidence the student is free of communicable disease and chemical dependency, and is physically and psychologically able to participate fully in both classroom and clinical aspects of the program. The nursing faculty reserves the right to require at any time (at student expense) an additional medical examination in order to evaluate the student’s state of physical, mental, and/or emotional health such as during pregnancy, infectious diseases, interference with mobility, emotional instability, chemical dependence, etc. When an examination or treatment is required, written proof must be provided by the physician attesting to the student’s ability to carry out both classroom and clinical requirements of the program.

   **NOTE:** Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by any clinical agency.

   2. Meet the Essential Functions with or without reasonable accommodations. These functions relate to physical, mental, and emotional capabilities of the prospective students and are available in writing from the Nursing Department. Additional health criteria may be required by clinical agencies.

   3. Purchase regulation uniforms and specified accessories.

   4. Participate in and pay for certification in cardiopulmonary resuscitation at the health care provider level (BLS) by the American Heart Association through the NW-SCC Health Studies Division during the first semester of the nursing program.

   5. Receive certain immunizations at the student’s expense.

   6. Purchase professional liability insurance through the College.

   7. Participate in and pay for periodic standardized tests.

   8. Participate in and pay for drug testing as directed by the Health Studies Division.

   9. Participate in and pay for background checks as directed by the Health Studies Division.

   It is recommended that each student carry health insurance.

   **NOTICE:** The Alabama Community College System Standardized Curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed.

   **ADN PROGRAM COMPLETION**

   Students completing NUR 112,113,114, and 115 and required academic courses will be awarded the Practical Nursing Certificate. Students who have completed required academic courses and continue in the program through completion of NUR 211 and 221 will be awarded an Associate in Applied Science Degree. Students are responsible for meeting all the progression and graduation requirements.

   **PROGRAM PROGRESSION POLICY:**

   In order to continue in the nursing program, the student must:

   1. Complete all required general education courses according to The Alabama Community College System Nursing curriculum.

   2. Maintain a grade of “C” or better in all required general education and nursing courses and maintain a 2.0 cumulative GPA at NW-SCC.
Please note: The Grading Scale for all Nursing Courses in the Nursing Program is:

- A = 90-100
- B = 80-89
- C = 75-79
- D = 60-74
- F = 59 and below.

3. Be accepted by all clinical agencies for clinical experiences. If a student is dismissed from any clinical agency, he or she will be dismissed from the program. Depending on the issue, the student may be withdrawn or receive a failing clinical grade.

4. Earn a satisfactory clinical evaluation in all nursing courses with a clinical component.

5. Maintain ability to meet essential functions for nursing with or without reasonable accommodations.


7. Maintain an adequate level of health, including but not limited to, annual physical examination, annual PPD, vaccinations, and freedom from chemical dependency and/or mental disorder.

A student that has an unsuccessful attempt in a nursing course (W, D, or F) cannot progress in the nursing course sequence until the course is repeated successfully. Course repetition will be based on instructor availability and program resources.

If a student has had two non-progressions in the Healthcare Transition Option Track One or Track Two, the student may apply as a new student for the Healthcare Transition Option Track One or may apply for admission to the generic option as a new student.

NURSING PROGRESSION POLICY

In order to progress in the nursing program, the following policy should be followed:

1. A total of two unsuccessful attempts in two separate semesters (D, F, or W) in the nursing program will result in dismissal from the program.

2. A student may be reinstated to the nursing program only one time. The reinstatement is not guaranteed due to limitations in clinical spaces. All nursing program admission standards must be met.
   - Should a student progress on to the ADN program (Level Two) after being reinstated in the PN Program (Level One), the reinstatement status from the PN program (Level One) still stands.

3. A student must have a 2.0 cumulative GPA at the current institution for reinstatement.

4. If a student has a documented extenuating circumstance that should be considered related to a withdrawal or failure, then this student may request a hearing before the Admission Committee or other appropriate college committee for a decision on repeating a course or readmission to the program.

5. ADN students whose second unsuccessful attempt occurs in NUR 211 or 221 may apply for the Healthcare Transition option, provided the student meets all admission requirements for the Healthcare Transition option, including valid Alabama Practical Nursing License.

6. If a student has had two non-progressions in the Healthcare Transition Option Track One or Track Two, the student may apply as a new student for the Healthcare Transition Option Track One or may apply for admission to the generic option as a new student.

REINSTATEMENT POLICY:

Definition of reinstatement: Students who have a withdrawal or failure in a nursing course and are eligible to return to that course will be considered for reinstatement to the program.

1. Students who desire to be reinstated following non-progression must schedule an appointment with a nursing faculty advisor to discuss reinstatement.

2. A student must request reinstatement within one year from the term of non-progression to be eligible for reinstatement.

3. In order to be eligible for reinstatement, the student must,
   a) Apply for readmission to the college if not currently enrolled.
   b) Receive unconditional admission status from the College.
   c) Demonstrate a 2.0 GPA in Nursing Program.
   d) Have no more than one non-progression since program admission.
   e) Submit application requesting reinstatement to the nursing program by the following deadlines:
      Fall Semester - May 15
      Spring Semester - October 15
      Summer Semester - February 15
   f) Demonstrate the ability to meet essential functions for nursing with or without reasonable accommodations.
   g) Demonstrate competency in previous nursing courses by those students who have been out of progression for greater than one semester (This may be evaluated by testing and/or skills validation.)
   h) Be accepted by all clinical agencies for clinical experiences.
   i) Demonstrate current American Heart Association CPR certification at the Health Care Provider level.

4. Students dismissed from the NW-SCC Nursing program for disciplinary reasons and/or unsafe patient care in the clinical area will not be allowed reinstatement to the nursing program. The student may reapply as a new student into the NW-SCC Nursing program after the period of two years have lapsed unless the unsafe action resulted in actual harm or injury to self or others. In such cases, and in cases of dismissal due to criminal background or substance abuse, students may not reapply nor reinstate to the nursing program.

5. Reinstatement to the nursing program is not guaranteed and will only be allowed one time; (including those who were reinstated in the PN program who join the ADN class as a NW-SCC PN to ADN transfer student)

6. Reinstatement will be denied due to, but not limited to, any of the following circumstances:
   a) Grade point average is less than 2.0 from courses completed at the current institution;
   b) Refusal by any clinical agency to accept the student for clinical experiences;
   c) space unavailability;
   d) more than twelve (12) months have lapsed since the
The student has enrolled in a nursing course;
(e) being previously dismissed from the program for disciplinary reasons and/or unsafe client care in the clinical area.
A total of two unsuccessful attempts (D, F, or withdrawal) in nursing courses will result in dismissal from the nursing program. Withdrawal and/or a D or F in one or more courses in a term will be considered one attempt.

READMISSION POLICY:
Students who are ineligible for reinstatement due to two unsuccessful attempts in any nursing program may apply for admission as a new student to any nursing program within the Alabama Community College System, provided:
(a) the student meets current entry requirements, and
(b) the student was not dismissed from the previous program for unsatisfactory patient care in the clinical area that resulted in actual harm or injury to self or others or for disciplinary reasons.
(c) the student is accepted by all clinical agencies for clinical experiences

STANDARDS OF CONDUCT:
The nursing student shall comply with the standards, which determines acceptable behavior of the nurse in accordance with the Northwest-Shoals Community College Student Handbook and the Alabama Board of Nursing Administrative Code. **FAILURE TO COMPLY WITH ANY OF THESE STANDARDS WHILE IN THE NURSING PROGRAM CONSTITUTES GROUNDS FOR DISMISSAL FROM THE PROGRAM.**

The following examples of behavior may be grounds for dismissal from the nursing program or for licensure application review by the Alabama Board of Nursing. Any individual who:

1. Is guilty of fraud or deceit in procuring or attempting to procure a license.
2. Is guilty of a crime involving moral turpitude or of gross immorality that would tend to bring reproach upon the nursing profession.
3. Is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit-forming drugs to such an extent as to render the licensee unsafe or unreliable.
4. Is mentally incompetent.
5. Is guilty of unprofessional conduct of a character likely to deceive, defraud, or injure the public in matters pertaining to health.
6. Has willfully or repeatedly violated any of the provisions of this act.
7. Has been convicted of a felony.
8. Has been convicted of any violation of a Federal or State law relating to controlled substances.
9. Has any other reasons authorized by law.
10. Has been placed on a State and/or Federal abuse registry.
11. Has been court martialed or disciplined or administratively discharged by the military.

Students who have demonstrated any of the behaviors prior to or during attendance of the nursing program will have to provide appropriate explanatory documentation with their state board license application. Any concerns related to the above should be discussed with the nursing advisor.

Regulatory questions aid the Board in determining the applicant’s “good moral character”, as required by law. The regulatory questions ask about your past history in the following areas: Criminal History, Substance Use, Physical or Mental Health, Discipline or Investigations of Other Licenses or Professions, and Military Discharge. Applicants are expected to read the questions carefully and answer honestly. All arrests, charges and convictions should be reported. This includes cases which were ultimately dismissed. It includes cases which were resolved by a guilty plea, nolo contendere plea, a trial, or by some type of deferred prosecution or pre-trial agreement. Felonies and misdemeanors should be reported. Minor traffic violations do not need to be reported. DUI is not a minor traffic violation. Affirmative responses do not preclude an individual from reinstatement of licensure, but may prompt further investigation.

Student are encouraged to visit the Alabama Board of Nursing's website for more information regarding answering Regulatory Questions.

ANTICIPATED EXPENSES:
As a student in the ADN program, you can anticipate certain necessary expenses. First of all, the tuition rate is the same as that for other NW-SCC students, but nursing program students will incur other expenses, which are listed below. Note that the amounts listed are approximations and that they are subject to change without notice.

<table>
<thead>
<tr>
<th>Expense</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books and Online resources</td>
<td>$1,600.00</td>
</tr>
<tr>
<td>Standardized Tests</td>
<td>$400.00</td>
</tr>
<tr>
<td>Physical Exam, TB Test &amp; Shots</td>
<td>$1000.00</td>
</tr>
<tr>
<td>Uniforms and Small Equipment</td>
<td>$345.00</td>
</tr>
<tr>
<td>Clinical Kit</td>
<td>$70.00</td>
</tr>
<tr>
<td>Clinical ID Badges</td>
<td>$10.00</td>
</tr>
<tr>
<td>Drug Screening</td>
<td>$70.00</td>
</tr>
<tr>
<td>Liability Insurance</td>
<td>$40.00</td>
</tr>
<tr>
<td>Graduation Pictures</td>
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</tr>
<tr>
<td>Graduation Pin (optional)</td>
<td>$40.00-200.00</td>
</tr>
<tr>
<td>RN Licensure Application Fee</td>
<td>$85.00</td>
</tr>
<tr>
<td>RN Temporary Permit (AL) (optional)</td>
<td>$50.00</td>
</tr>
<tr>
<td>NCLEX</td>
<td>$200.00</td>
</tr>
<tr>
<td>Background Checks</td>
<td>$75.00</td>
</tr>
<tr>
<td>NCLEX-RN Review (optional)</td>
<td>$300.00</td>
</tr>
</tbody>
</table>

**NOTICE:** In addition to the expenses listed, you are responsible for transportation, meals, health care expenses, any liability incurred during and while traveling to and/or from educational experiences.
Registered Nursing  
Associate in Applied Science Degree

Available: Phil Campbell Campus
Advisors:
A. Bales (6298) abales@nwscc.edu
P. Ford (5306) pford@nwscc.edu
M. Hester (6237) mhester@nwscc.edu
B. Humphres (6207) bhumphres@nwscc.edu
D. Jaynes (6221) dromans@nwscc.edu
B. Michael (6244) brittany.michael@nwscc.edu
R. Stewart (6256) rebecca.stewart@nwscc.edu
B. Sullins (6250) britney.sullins@nwscc.edu
N. Thompson (6249) nikki.thompson@nwscc.edu
S. Thomas (6252) cthomas@nwscc.edu
C. Tice (6293) ctice@nwscc.edu
C. Tidwell (5305) cindy@nwscc.edu

The Associate in Applied Science Degree in Nursing is a five semester program beginning with the first nursing course, which prepares the graduate to sit for the Registered Nurse licensure examination. Candidates for the Associate in Applied Science in Nursing must complete the prescribed general education course requirements, plus 39 hours in nursing for a total of 66 hours.

Semester I (Fall)  
Semester Hours  
+MTH 100 (Intermediate College Algebra)  
  or Higher Level* ............................................................3
+BIO 201 Human Anatomy and Physiology I ......................4
NUR 112 Fundamental Concepts of Nursing ......................7  
  14

Semester II (Spring)  
+ENG 101 English Composition I** .....................................3
+BIO 202 Human Anatomy and Physiology II .....................4
+PSY 210 Human Growth and Development ......................3
NUR 113 Nursing Concepts I ..............................................8  
  13  
  18

Semester III (Summer)  
+SPH 107 Speech ..............................................................3
NUR 114 Nursing Concepts II ...........................................8
NUR 115 Evidence Based Clinical Reasoning ......................2  
  10

(Students who successfully complete NUR 112, NUR 113, NUR 114, NUR 115 and all required academic courses of the first three semesters will be awarded the PN certificate. Students who continue in the program through completion of NUR 211 and 221 and have completed all required academic courses will be awarded the Associate in Applied Science Degree.)

Semester IV (Fall)  
+BIO 220 Microbiology ........................................................4
NUR 211 Advanced Nursing Concepts ................................7  
  11

Semester V (Spring)  
+++Humanities Elective .......................................................3
NUR 221 Advanced Evidence Based Clinical Reasoning ...7  
  10

Total Semester Credit Hours ..............................................66

Registered Nursing  
Mobility (Healthcare Transition)  
Associate in Applied Science Degree

Available: Phil Campbell Campus
PREREQUISITES:
MTH 100 (Intermediate College Algebra) or Higher Level (3 credit hours)*
BIO 201 Human Anatomy and Physiology I (4 credit hours)
BIO 202 Human Anatomy and Physiology II (4 credit hours)
ENG 101 English Composition I (3 credit hours)**
PSY 210 Human Growth and Development (3 credit hours)
SPH 107 Speech (3 credit hours)
Total Prerequisites: 20 credit hours

Semester I (Spring)  
Semester Hours  
NUR 209 Concepts for Healthcare Transition Students ....10

Semester II (Fall)  
+BIO 220 Microbiology ........................................................4
NUR 211 Advanced Nursing Concepts ................................7  
  11

Semester III (Spring)  
+++Humanities Elective .......................................................3
NUR 221 Advanced Evidence Based Clinical Reasoning ...7  
  10

Skills Competency is required for Healthcare Transition Option Track I and Track II and may include testing and/or skills validation. Upon successful completion of NUR 209, students are eligible to progress into NUR 211. Upon successful completion of the Healthcare Transition Option Track One, students will receive 15 non-traditional credit hours. Upon successful completion of the Healthcare Transition Option Track Two, students will receive 25 non-traditional credit hours.

Total Semester Credits .....................................................66

*May choose from MTH 110, MTH 112, MTH 265, or equivalent.
**Keyboarding skills are essential for the successful completion of English 101.
++Choose from ART (for transfer program - ART 100); Music (for transfer program - MUS 101); Foreign Language; Philosophy; Religion; Theater; Literature

Computer competency skills are embedded within one or more courses required in this curriculum.
Practical Nursing Career Certificate

Available: Shoals Campus and Phil Campbell Campus
Advisors: P. Ford (5306) pford@nwscc.edu
B. Humphries (6207 or 5337) bhumphres@nwscc.edu
C. Tidwell (5305) cindy@nwscc.edu
A. Bales (6298) abales@nwscc.edu
M. Hester (6237) mhester@nwscc.edu
D. Jaynes (6221) dromans@nwscc.edu
B. Michael (6244) brittany.michael@nwscc.edu
R. Stewart (6256) rebecca.stewart@nwscc.edu
B. Sullins (6250) britney.sullins@nwscc.edu
N. Thompson (6249) nikki.thompson@nwscc.edu
S. Thomas (6252) cthomas@nwscc.edu
C. Tice (6293) ctice@nwscc.edu

This certificate is designed for training capable individuals who desire to become Licensed Practical Nurses (LPN). The Practical Nursing program enables the student to obtain the skills and knowledge leading to employment in the health care field. Topics related to safe, knowledgeable, and efficient nursing care are included. The certificate is approved by the Alabama Board of Nursing. Graduates are eligible to apply to take the state licensing examination (NCLEX-PN) for licensure as Practical Nurses. Graduation from the program however, does not guarantee Board of Nursing approval to take the NCLEX-PN licensing examination. See Standards of Conduct in the Registered Nursing section of the catalog.

The Practical Nursing Program is three semesters in length.

The Practical Nursing Program is developed as a combined sequence of nursing and general education courses, and students may take all required general education courses once admitted to nursing. The general education courses are offered on both the Shoals and Phil Campbell campuses at NW-SCC. If you have major responsibilities such as family or work, or if you have been away from school for several years, or if you do not have a strong academic background, you are encouraged to complete as many general education courses as possible before attempting to enter the nursing program. Completion of certain courses prior to application results in a higher ranking score and improves the chances of being admitted. Therefore, students typically enter the nursing program with a minimum of two semesters of general education courses already completed. Otherwise, the general education courses must be taken no later than the semester specified in the curriculum. Prior credit for general education courses does not shorten the length of the curriculum due to the required sequence of nursing courses.

The admission criteria is currently under review and is subject to change.

APPROVALS AND ACCREDITATION
The PN program is state approved by the Alabama Board of Nursing. This nursing education program is a candidate for accreditation by the Accreditation Commission for Education in Nursing.

Minimum admission standards for Practical Nursing include:

1. Unconditional admission to the college and be in good standing with College.
2. Receipt of completed application for the Practical Nursing Program by October 15th for the summer admission annually.
3. Have a minimum of 2.50 cumulative grade point average on a 4.0 scale based on a required academic core courses for nursing and on clear academic status AND
   - Current or previous NW-SCC students must have a minimum 2.0 GPA or higher at NW-SCC
   - Transfer students must enter NW-SCC on clear academic status (cumulative 2.0 GPA)
   - Students without prior college courses must have a minimum 2.50 cumulative high school GPA on all high school work attempted (including 12th grade)
4. Eligibility for English 101 and MTH 100 (Intermediate College Algebra) or higher as determined by college policy.
5. Minimum of 18 ACT Composite score (writing component not required), national or residual, is required, and results must be submitted to the Admissions office. There is no expiration date on ACT for the nursing application.
6. Meeting the essential functions required for nursing. (See Essential Functions in Registered Nursing section of the catalog.)

Admission to the PN program is competitive. Meeting minimum requirements does not guarantee acceptance.

The College reserves the right to adjust requirements or use additional criteria to determine admission.

PROGRAM REQUIREMENTS
After acceptance each student must:

1. Submit completed medical examination forms (at student expense) that provide evidence the student is free of communicable disease and chemical dependency, and is physically and psychologically able to participate fully in both classroom and clinical aspects of the program. The nursing faculty reserves the right to require at any time (at student expense) an additional medical examination in order to evaluate the student’s state of physical, mental, and/or emotional health such as during pregnancy, infectious diseases, interference with mobility, emotional instability, chemical dependence, etc. When an examination or treatment is required, written proof must be provided by the physician attesting to the student’s ability to carry out both classroom and clinical requirements of the program.

NOTE: Northwest-Shoals Community College reserves the right to remove from the program any student who is refused use of facilities by any clinical agency.
2. Meet the Essential Functions with or without reasonable accommodations. These standards relate to physical, mental, and emotional capabilities of prospective students and are available in writing from the Nursing Department. Additional health criteria are required by clinical agencies.

3. Purchase regulation uniforms and specified accessories.

4. Participate in and pay for certification in cardiopulmonary resuscitation at the health care provider level (BLS) by the American Heart Association through the NW-SCC Health Studies Division during the first semester of the nursing program.

5. Receive certain immunizations at the student’s expense.

6. Purchase professional liability insurance through the College.

7. Participate in and pay for periodic standardized testing.

8. Participate in and pay for drug testing as directed by Health Studies Division.

9. Participate in and pay for background checks as directed by Health Studies Division.

NOTICE: The Alabama Community College System Standardized Curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed.

Refer to the Registered Nursing sections for the following information which applies to both the ADN and PN programs: Essential Functions, Standards of Conduct, Progression Policy, and Transfer Policy.

The following are specific policies for the PN Program for students wishing to transfer from another ACCS PN program:

1. You will receive no credit for any nursing education that was acquired more than one (1) year prior to the transfer.

2. You must complete two semesters of the program at NW-SCC.

3. ACCS Nursing Curriculum courses will be transferred without review of course syllabus.

EXPENSES:

The tuition rate is the same as that for other NW-SCC students, but nursing program students will incur other expenses, which are listed below. Note that the amounts listed are approximations and that they are subject to change without notice.

Textbooks and course outlines ........................................ $1,000.00
Professional liability insurance ........................................ $20.00
Drug Screening ...................................................... $40.00
Laboratory kit .......................................................... $70.00
Uniforms(s) and necessary equipment ....................... $345.00
(Stethoscope, watch with second hand, pen light, etc.)
Physical examination .............................................. $1,000.00
(Immunizations, if needed)
Standardized Exams ................................................ $250.00
Background Check .................................................. $60.00
Clinical ID Badge .................................................. 5.00
Computer Software ............................................... $400.00
Parking Decal ....................................................... $20.00

Additional expenses anticipated during the final semester of the PN program are approximate. These are as follows:

ABN application ..................................................... $88.50
NCLEX application ................................................. $200.00
Temporary permit (optional) ABN Only ................... $50.00
Nursing Pin (optional) ............................................. $45.00
NCLEX review course (optional) ......................... $250.00

NOTICE: In addition to the expenses listed above, you are responsible for transportation, meals, health care expenses, any liability incurred during and while traveling to and/or from educational experiences.

NW-SCC PN to ADN TRANSFER POLICY

NW-SCC PN students are those who have been admitted to or reinstated into the PN program on the Muscle Shoals campus. After completion of the PN certificate, NW-SCC PN students may apply for transfer into the last two semesters of the ADN program without a LPN license based on the following conditions:

1. Meet all the ADN program admission and progression requirements.

2. Apply to transfer into the ADN program within 7 days of the day grades are posted for the semester of the completion of the NW-SCC PN program with PN certificate.

3. No more than one semester has lapsed since completion of the PN certificate at NW-SCC.

If a student is a reinstated student in the PN Program, the reinstatement status continues in the ADN Program. Meeting minimum requirements does not guarantee acceptance.
**Practical Nursing**  
**Career Certificate**  

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>+MTH 100 Intermediate College Algebra or Higher Level...3</td>
<td></td>
</tr>
<tr>
<td>+BIO 201 Human Anatomy and Physiology I ..................4</td>
<td></td>
</tr>
<tr>
<td>NUR 112 Fundamental Concepts of Nursing ...................7</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester II</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ENG 101 English Composition I ..........................3</td>
<td></td>
</tr>
<tr>
<td>+BIO 202 Human Anatomy and Physiology II ...............4</td>
<td></td>
</tr>
<tr>
<td>+PSY 210 Human Growth and Development ...................3</td>
<td></td>
</tr>
<tr>
<td>NUR 113 Nursing Concepts I ................................8</td>
<td></td>
</tr>
<tr>
<td>NUR 114 Nursing Concepts II ........................................3</td>
<td></td>
</tr>
<tr>
<td>NUR 115 Evidence Based Clinical Reasoning .................2</td>
<td></td>
</tr>
<tr>
<td>SPH 107 Speech ..................................................3</td>
<td></td>
</tr>
<tr>
<td>NUR 114 Nursing Concepts II ........................................3</td>
<td></td>
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<tr>
<td>NUR 115 Evidence Based Clinical Reasoning .................2</td>
<td></td>
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<tr>
<td>Total Semester Credit Hours ...............................45</td>
<td></td>
</tr>
</tbody>
</table>

+Must be completed with a grade of "C" or higher before or during semester noted above.

**Nursing Assistant**  

<table>
<thead>
<tr>
<th>513902 NAS</th>
</tr>
</thead>
</table>

Available: Shoals Campus  
Advisors:  
B. Humphres (6207) bhumphres@nwscc.edu  
N. Thompson (6250) nikki.thompson@nwscc.edu  
C. Tidwell (5305) cindy@nwscc.edu  

The Nursing Assistant course includes instruction in theory, nursing skills lab, and a clinical rotation in a long-term care facility. A basic introduction to the field of long-term care and home health care is provided. This course does not require a high school diploma or GED certificate for admission.

After successful completion of the 75-hour nurse assistant course, the student will meet requirements to take both the written and skills examinations required by the Alabama Department of Public Health (ADPH) to be a Certified Nurse Assistant (CNA) in the state of Alabama. Tests are available from at least two test services in the state. Students must pass the test within 24 months of having successfully completed a state approved nurse assistant training program. Applicants are allowed three attempts to take the written test and the clinical skills test. Both tests must be passed in the same 24-month eligibility period for the results to be provided to the ADPH, the certifying agency.

Certification as a nurse assistant enables the individual to obtain employment in nursing homes, hospitals, or home health care agencies. Employment eligibility for persons less than 18 years old is dependent upon the policy of the individual agency.

Clinical requirements:
1. Ability to meet essential functions requirements (with or without accommodation).  
2. Current proof of negative TB skin test (2 step)  
3. Verification of current CPR certification at the American Heart Association, Health Provider level (BLS)  
4. Negative drug screen (performed by school-approved vendor)  
5. Clear criminal background check (performed by school approved vendor)  

Note that the amounts listed are approximations and that they are subject to change without notice.

Tuition and fees ................................................................. $ 568.00  
Student Insurance Fee ....................................................... $ 7.50  
Textbook .............................................................................. $ 81.75  
Liability Insurance ............................................................... $ 20.00  
TB Skin Test ........................................................................... varies  
Clinical ID Badge ............................................................... $ 60.00  
Background Check ............................................................... $ 5.00  
Certification Exam ............................................................... $ 100.00  
Parking Decal ......................................................................... $ 20.00  
Drug Screening ....................................................................... $ 40.00  
Uniform and Shoes ............................................................... $ varies
**Allied Health Linkage Programs**

Northwest-Shoals Community College has established a cooperative linkage program with Wallace State/Hanceville. The first year of general education and prerequisite courses are completed at the NW-SCC on either campus. **After acceptance to Wallace State and the desired program, students transfer to Wallace State to complete the course work in the specific area along with clinical experiences to obtain an Associate in Applied Science Degree/and or Certificate.** The following programs are offered through this arrangement:

**Approximate Length of Study at Health Programs Wallace State Community College**

- Clinical Laboratory Technician .................. 5 semesters
- Dental Assisting ..................................... 4 semesters
- Dental Hygiene ....................................... 5 semesters
- Health Information Technology ..................... 5-6 semesters
- Human Services ...................................... 5 semesters
- Occupational Therapist Assistant .................. 5 semesters
- Physical Therapist Assistant ....................... 5 semesters
- Respiratory Therapy .................................. 5 semesters

Linkage students should submit an application for admission to Wallace State College as soon as they begin classes at Northwest-Shoals. Separate applications are required by each program. **June 1 is the deadline date for program applications. Call (256) 352-8031 to request specific program application.**

Students interested in pursuing any of the linkage programs should contact a Northwest-Shoals advisor as early as possible. The student is also strongly advised to contact the Wallace State College linkage program director the first semester at Northwest-Shoals to ensure that the proper courses are taken.

Linkage students will be expected to meet the academic standards of Northwest-Shoals. **Since admission requirements and course requirements at Wallace State are subject to change, please consult with the linkage coordinator at Wallace State.** Students who complete these programs are awarded the Associate in Applied Science degree from Wallace State. In addition, the Linkage program offers a certificate program for Dental Assisting.

While attending Wallace State, the student will be responsible for tuition, books, cost of background screening and drug testing fee, an Accident Insurance fee and a Malpractice Insurance fee each semester. Malpractice insurance is available through the College at a low cost. Most programs require students to carry health insurance. All students must have evidence of current immunizations and physical exam. Linkage scholarships are available. **March 1st is the deadline for application.**

*Contact WSCC for current updates that may have been added to a linkage program after the publication of the NW-SCC catalog.*

**Clinical Laboratory Technician** 510899 GEL

**Career Degree - Wallace Linkage**

Available: Phil Campbell and Shoals Campuses

Advisors: A. Lyndon (5319/6235) lyndon@nwsc.edu
K. Sheppard (5331) ksheppard@nwsc.edu
B. Smith (5379) bsmith@nwsc.edu
S. Watson (6253) swatson@nwsc.edu

Graduates of the Clinical Laboratory Technician Program are employed in hospital laboratories, physicians’ offices, and other laboratory facilities as Clinical Laboratory Technicians (CLT) and Medical Laboratory Technicians (MLT). These graduates are allied-health professionals who perform analyses in the areas of microbiology, hematology, immunology, biochemistry, and immunohematology.

The program provides education and training in these sciences and in the performance of laboratory procedures used in the diagnosis and treatment of diseases and disorders. The Clinical Laboratory Program accepts students twice a year in the summer and fall semesters. The graduate receives an Associate in Applied Science Degree and will be eligible to sit for a National Certification Examination. See program webpage for accreditation information.

**General Required Courses to be Completed at Northwest-Shoals Community College.** It is not mandatory that all General Required Courses be completed before entering the professional phase.

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

**Total Semester Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 103</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 104</td>
<td>Introduction to Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English 102</td>
<td>3</td>
</tr>
<tr>
<td>MTH 116</td>
<td>Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 200</td>
<td>General Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

**WSCC Program Director:** Julie Welch 256.352.8347

Health programs at Wallace State have program admission requirements unique to the individual program. Information on program admission requirements can be obtained through the WSCC catalog, WSCC website (www.wallacestate.edu), or Sharon Watson, Health Linkage advisor located at NW-SCC. Admission requirements may include, but are not limited to CPR certification, ACT scores, Compass testing, and observation hours.

After program admission, all WSCC Health Science Division students are required to submit a physical exam, and to consent to drug testing and criminal background checks to meet clinical agency requirements.
**Dental Assisting**  
*Career Degree - Wallace Linkage*

Available: Phil Campbell and Shoals Campuses  
Advisors: A. Lyndon (5319/6235) lyndon@nwssc.edu  
K. Sheppard (5331) kim.sheppard@nwssc.edu  
B. Smith (5379) bsmith@nwssc.edu  
S. Watson (6253) sberrian@nwssc.edu

Upon successful completion of this program, graduates will be prepared to function as Dental Assistants in dental offices, hospitals, and clinics. A dental assistant assists with the direct care of patients under the supervision of a dentist. **STUDENTS ENROLLING IN THE PROGRAM MAY DO SO FOR EITHER A CERTIFICATE PROGRAM OR AN ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAM.** Either approach enables the student to qualify to take the National Certification Examination administered by the Dental Assisting National Board, Inc. Students are required to complete the program within two years of entry into the program. See program webpage for accreditation information.

**General Required Courses to be completed at Northwest-Shoals Community College**

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>CIS 146 Microcomputer Applications</td>
</tr>
<tr>
<td>*ENG 101 English Composition I</td>
</tr>
<tr>
<td>*MTH 116 Mathematical Applications</td>
</tr>
<tr>
<td>*PSY 200 General Psychology</td>
</tr>
<tr>
<td>*SPH 107 Fundamentals of Public Speaking</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective</td>
</tr>
<tr>
<td>BIO 103 Principles of Biology I</td>
</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
</tr>
</tbody>
</table>

*Required for certificate program.*

Students must complete specialized courses at Wallace State to receive this degree or certificate. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

WSCC Program Director: Barbara Ebert 256.352.8380

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**Dental Hygiene**  
*Career Degree - Wallace Linkage*

Available: Phil Campbell and Shoals Campuses  
Advisors: A. Lyndon (5319/6235) lyndon@nwssc.edu  
K. Sheppard (5331) kim.sheppard@nwssc.edu  
B. Smith (5379) bsmith@nwssc.edu  
S. Watson (6253) sberrian@nwssc.edu

Wallace State Community College offers this course of study leading to an Associate in Applied Science Degree in Dental Hygiene. Individuals who have received a Certificate or A.A.S. in Dental Assisting from an accredited program may receive advanced standing for previously completed courses including DHY 103 (Radiology) and DHY 102 (Dental Materials). The DHY Program requires a minimum of five semesters for completion.

As a practicing member of the dental health team, the dental hygienist acts as an educator and motivator in maintenance of oral health and the prevention of dental disease. There are many professional roles the dental hygienist may assume: participation in community health programs, dental office managerial roles, and participation in research activities. Since many dentists employ one or two dental hygienists, employment opportunities in this field are wide. Hygienists are in demand in general dental practices as well as in specialty practices such as periodontics or pediatric dentistry. Hygienists may also be employed to provide dental hygiene services for patients in hospitals, nursing homes, and public health clinics.

See program website for accreditation information. Graduates are allowed to take National Dental Hygiene Boards. Students who successfully complete the National Board Exam are qualified to take any State or Regional licensing examination.

**General Required Courses to be completed at Northwest-Shoals Community College.**

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIO 201-202 Human Anatomy and Physiology I and II</td>
</tr>
<tr>
<td>*BIO 220 General Microbiology</td>
</tr>
<tr>
<td>CHM 104 Introduction to Inorganic Chemistry</td>
</tr>
<tr>
<td>ENG 101 English Composition I</td>
</tr>
<tr>
<td>MTH 116 Mathematical Application</td>
</tr>
<tr>
<td>PSY 200 General Psychology</td>
</tr>
<tr>
<td>*SPH 107 Fundamentals of Public Speaking</td>
</tr>
<tr>
<td>SOC 200 Introduction to Sociology</td>
</tr>
<tr>
<td>Humanities or Fine Arts Elective</td>
</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
</tr>
</tbody>
</table>

*Required for certificate program.*

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

WSCC Program Director: Barbara Ebert 256.352.8380

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Health programs at Wallace State have program admission requirements unique to the individual program. Information on program admission requirements can be obtained through the WSCC catalog, WSCC website (www.wallacestate.edu), or Sharon Watson. Health Linkage advisor located at NW-SCC. Admission requirements may include, but are not limited to CPR certification, ACT scores, Compass testing, and observation hours.

After program admission, all WSCC Health Science Division students are required to submit a physical exam, and to consent to drug testing and criminal background checks to meet clinical agency requirements.

WSCC Program Director: Barbara Ebert 256.352.8380
HEALTH CARE INFORMATION PROGRAMS

This department offers several unique programs: The Associate in Applied Science degree in Health Information Technology, a certificate in Medical Transcription, and a certificate in Medical Coding.

Health Information Technology 510899 GEL Career Degree - Wallace Linkage

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) kim.sheppard@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6253) sberrian@nwscc.edu

The Health Information Technician (HIT) is a skilled professional who analyzes and evaluates highly sensitive data in health records. Skills of the health information technician are varied but include the following: supervising the release of health information, maintaining and utilizing information storage and retrieval systems, compiling various health statistics, editing transcribed clinical information, and supervising electronic health information management systems. Health information technicians may be employed by any facility that manages patient information, such as a hospital, clinic, physician office, insurance company, or medical research center.

Health Information Technicians are trained to also become medical coding specialists. The medical coding specialists perform detailed review of medical records to identify diagnoses and operative procedures. Numeric classification codes are assigned to each diagnosis and procedure, using automated or manual methods. Principle classification systems used include the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and Current Procedural Terminology (CPT).

See program webpage for program accreditation information. Each graduate of the HIT Program is eligible to take the national examination to become a Registered Health Information Technician (RHIT). Technicians trained in non-national examination to become a Registered Health Information Technician (RHIT).

Students have the opportunity to spend many hours in a clinical setting to practice skills obtained in the classroom. Students enrolled in professional practice experience (clinical) courses will be assigned hours consistent with day shift. Assignment to the professional practice experience facilities will be at the discretion of program officials, and students are required to travel to different locations for the "hands-on" training.

The Health Information Technology Program Offers three alternatives for a student’s completion of classes: (Note: Actual program completion time may vary).

1. **One year, non-integrated program**: A student who has completed all general education courses may complete the HIT program courses in three semesters of full-time study.

2. **Two year, integrated program**: A student may schedule general education courses while taking the health information technology courses. This alternative requires a minimum of 5 to 6 semesters to complete.

3. **Online Program**: A student may schedule HIT online courses in accordance with either the one year or two year completion option. The professional practice experience activities must be completed on dayshift at an approved health care facility, not online. HIT students who live within 50 miles of campus must attend a minimum number of on-campus class/lab meetings. Instructors may require online students to take make-up exams on campus. Instructors may also require online course exams to be proctored, according to college policy.

4. **Part-time Program**: The student may choose to complete the program by taking classes on a part-time basis. Program completion time will depend upon the number of classes taken each semester. The program must be completed within three years following entry into the program.

Students should indicate on the program application the option that they would like to choose to complete their degree.

**General Courses to be Completed at Northwest-Shoals Community College.**

**Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.**

<table>
<thead>
<tr>
<th>Course and Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIO 201-202 Human Anatomy and Physiology I and II.</td>
<td>8</td>
</tr>
<tr>
<td>CIS 146 Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101 English Composition I and 102 English Composition II or SPH 107 Fundamentals of Public Speaking</td>
<td>6</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>OAD 211 Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>Behavior Science Elective or History or Social Science elective or PSY 200 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Art Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Hours</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

**Biology 103 highly recommended**

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

WSCC Program Director: Donna Stanley 256.352.8327

Health programs at Wallace State have program admission requirements unique to the individual program. Information on program admission requirements can be obtained through the WSCC catalog, WSCC website (www.wallacestate.edu), or Sharon Watson, Health Linkage advisor located at NW-SCC. Admission requirements may include, but are not limited to CPR certification, ACT scores, Compass testing, and observation hours.

After program admission, all WSCC Health Science Division students are required to submit a physical exam, and to consent to drug testing and criminal background checks to meet clinical agency requirements.
Human Services 510899 GEL

Career Degree - Wallace Linkage

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (6319/6235) lyndon@nwscce.edu
K. Sheppard (5331) ksheppard@nwscce.edu
B. Smith (5379) bsmith@nwscce.edu
S. Watson (6253) swatson@nwscce.edu

The Human Services curriculum is designed for students who wish to pursue a two-year degree and prepare for a paraprofessional career in a mental health/human services related field.

Clinical experience allows the student to gain valuable knowledge in observation and assistance in human services facilities. Students enrolled in clinical education will be assigned hours consistent with day working hours of human services agencies. However, assignments may include second shift hours of 3-11 p.m. Assignment to clinical facilities will be at the discretion of the program director and/or clinical director. Students may be required to travel distances away from their home for their clinical assignment.

The Human Services Program offers three A.A.S. degree options for the student: Mental Health Technician Associate, Alcohol and Drug Associate Counseling Associate, and Social Work Associate. A student may complete one or more of the three options, depending upon which field he/she desires to pursue.

The Mental Health Technician Associate Option is offered every year. The Alcohol and Drug Counseling Associate Option is offered in odd-numbered years and the Social Work Associate Option is offered in even-numbered years.

The Mental Health Associate (sometimes called a Psychiatric Technician, Behavioral Health Technician, Mental Health Technologist, or Counselor Assistant) is trained to work as a paraprofessional in state institutions, mental health centers, psychiatric (behavioral medicine) units of hospitals, domestic violence centers, developmental centers, group homes, halfway houses, and a variety of human services facilities. He/she may work with children, adolescents, and adults who are experiencing mental illness, mental retardation, substance abuse, domestic violence, adjustment disorders (personal loss, stress, and health), various categories of behavior-related pathology, and family issues. Upon completion of the program, a student may voluntarily take the Nationally Certified Psychiatric Technician exam to become a Nationally Certified Psychiatric Technician.

The Alcohol and Drug Counseling Associate option offers special training for students desiring to work with substance abusers and their families. He/she is trained to work in state institutions, mental health centers, profit treatment centers, non-profit treatment centers, 12-step recovery programs, halfway houses, and group homes. With the course work in this program and a minimum of two years of documented work experience in the addictions field, the student may qualify to take the state certification exam to become a "Certified Alcohol and Drug Counselor."

The Social Work Associate Option trains the student to work as an assistant social worker or assistant case manager. Graduates of this option work at mental health centers, domestic violence shelters, nursing homes, assisted living facilities, developmental centers, state institutions, hospitals, service providers of the Alabama Department of Human Resources, addiction recovery programs, various state and federal government programs, Community Action programs, non-profit assistance programs, child advocacy centers, adolescent programs, adolescent and adult detention centers, and literacy programs. Students are trained to work with individuals at all stages of the human lifespan.

General Required Courses to be Completed at Northwest-Shoals Community College.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 103</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>CIS 146</td>
<td>Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 102</td>
<td>English Composition II</td>
<td>3</td>
</tr>
<tr>
<td>ORI 107</td>
<td>Orientation to Human Services</td>
<td>3</td>
</tr>
</tbody>
</table>

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program every term. See your advisor.

WSCC Program Director: Susan Beck 256.352.8339

Health programs at Wallace State have program admission requirements unique to the individual program. Information on program admission requirements can be obtained through the WSCC catalog, WSCC website (www.wallacestate.edu), or Sharon Watson, Health Linkage advisor located at NW-SCC. Admission requirements may include, but are not limited to CPR certification, ACT scores, Compass testing, and observation hours.

After program admission, all WSCC Health Science Division students are required to submit a physical exam, and to consent to drug testing and criminal background checks to meet clinical agency requirements.
**Occupational Therapy Assistant**

**Career Degree - Wallace Linkage**

Available: Phil Campbell and Shoals Campuses

Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) kim.sheppard@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6253) sberrian@nwscc.edu

Under the direction of an Occupational Therapist, the Occupational Therapy Assistant (OTA) assists in evaluating patients and in developing a plan of selected tasks to restore, influence, or enhance performance of individuals whose abilities to cope with daily living tasks are impaired or threatened by developmental deficits, the aging process, physical injury or illness, learning disabilities, or psychological and social disabilities. Occupational Therapy Assistants are employed in general hospitals, rehabilitation centers, nursing homes, home health care agencies, private practices, and other specialized health care settings.

The Occupational Therapy Assistant Program is a two-year course of full-time study.

The certifying agency is the National Board for Certification in Occupational Therapy, Inc. (NBOT). After successful completion of the NBOT exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Conviction of a felony may affect a graduate’s ability to sit for the NBOT certification examination or to attain state licensure. Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBOT Certification Examination. See program webpage for accreditation information.

**General Required Courses to be Completed at Northwest-Shoals Community College.**

Entering students are required to complete ORI 107.

Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIO 201 Human Anatomy and Physiology I ........................................ 4</td>
</tr>
<tr>
<td>ENG 101 English Composition I .................................................. 3</td>
</tr>
<tr>
<td>Humanities/Fine Art Elective ..................................................... 3</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications ............................................. 3</td>
</tr>
<tr>
<td>OAD 211 Medical Terminology ..................................................... 3</td>
</tr>
<tr>
<td>CIS 146 Microcomputer Applications ............................................. 3</td>
</tr>
<tr>
<td>PSY 200 General Psychology ...................................................... 3</td>
</tr>
<tr>
<td>SPH 107 Fundamentals of Public Speaking ....................................... 3</td>
</tr>
<tr>
<td>Total Semester Hours ..................................................................... 26</td>
</tr>
</tbody>
</table>

*Physiology 103 highly recommended*

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

WSCC Program Director: Allen Keener 256.352.8333

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**Physical Therapist Assistant**

**Career Degree - Wallace Linkage**

Available: Phil Campbell and Shoals Campuses

Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) kim.sheppard@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6253) sberrian@nwscc.edu

The Physical Therapist Assistant (PTA) is a skilled technical health worker who, under the supervision of a Registered Physical Therapist, assists in patients’ treatment programs. The assistant, following established procedures, carries out a planned patient-care program. Duties of the Physical Therapist Assistant are varied but include rehabilitation of orthopedic, neurological, pediatric, and sports-related problems.

Physical Therapist Assistants are employed in general hospitals, rehabilitation centers, nursing homes, home health-care agencies, private practices, and other specialized health-care settings.

The Physical Therapist Assistant Program is a two-year course of study. The student should complete the first year of general education course prerequisites before being eligible to apply to the Physical Therapist Assistant Program. Three semesters are necessary to complete the final year of the program, which begins in the fall semester. The second year classes include technical and clinical experience in a variety of health-care settings where the student performs selected clinical procedures under the supervision of a Physical Therapist or Physical Therapist Assistant.

See program webpage for accreditation information. Graduates will be eligible to apply to sit for the National Licensing Examination for the Physical Therapist Assistant, administered by the Federation of State Boards of Physical Therapy. After successful completion of the exam, the individual will be a Licensed Physical Therapist Assistant.

**Acceptance to Wallace State College does not guarantee admission to the Physical Therapist Program.**

**General Required Courses to be Completed at Northwest-Shoals Community College.**

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIO 201-202 Human Anatomy and Physiology I and II ...................... 8</td>
</tr>
<tr>
<td>ENG 101 English Composition I .................................................. 3</td>
</tr>
<tr>
<td>**Humanities/Fine Art Elective .................................................... 3</td>
</tr>
<tr>
<td>MTH 100 Intermediate College Algebra ........................................ 3</td>
</tr>
<tr>
<td>OAD 211 Medical Terminology ..................................................... 3</td>
</tr>
<tr>
<td>PSY 200 General Psychology ...................................................... 3</td>
</tr>
<tr>
<td>PSY 210 Human Growth and Development ....................................... 3</td>
</tr>
<tr>
<td>SPH 107 Fundamentals of Public Speaking ..................................... 3</td>
</tr>
<tr>
<td>Total Semester Hours .................................................................. 30</td>
</tr>
</tbody>
</table>

*Ethics in the Health Science or Spanish is recommended.

**PTA 120 Intro to Kinesiology - Not required for admission to program, but recommended. Bonus points given to applicant for admission purposes.**

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively and only in certain terms. See your advisor.

WSCC Program Director: Alina Adams 256.352.8332
Respiratory Therapy 510899 GEL
Career Degree - Wallace Linkage

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
         K. Sheppard (5331) kim.sheppard@nwscc.edu
         B. Smith (5379) bsmith@nwscc.edu
         S. Watson (6253) sberrian@nwscc.edu

This program is designed to provide training necessary for successful completion of the requirements for the advanced practitioner level as defined by the National Board for Respiratory Care (NBRC). A respiratory therapist is responsible for administering under a physician’s prescription many types of breathing therapeutics and utilizing specialized breathing, aerosol, and humidification equipment. The respiratory therapist works closely with the physician and also directly with the patient in the treatment situation.

The Respiratory Therapy program is accredited by the Commission of Accreditation of Allied Health Education Programs in association with the Committee on Accreditation for Respiratory Care (CoARC). Upon graduation, the student is eligible to take the registry examination of the National Board of Respiratory Care.

General Required Courses to be Completed at Northwest-Shoals Community College.

Entering students are required to complete ORI 107. Transfer students are exempt from this requirement.

Semester Hours

* BIO 201-202 Human Anatomy and Physiology I and II......8
ENG 101 English Composition I and 102 English Composition II or SPH 107 Fundamentals of Public Speaking.........................................................6
MTH 100 Intermediate College Algebra ......................... 3
PSY 200 General Psychology .......................................... 3
Humanities/Fine Art Elective................................................3
Total Semester Hours....................................................24

*Biology 103 highly recommended

BIO 201, ENG 101, and MTH 100 must be completed by the June 1 application deadline. The other courses may be completed at Wallace.

Students must complete specialized courses at Wallace State to receive this degree. Wallace State enrolls students in this program competitively beginning in fall semester. See your advisor.

WSCC Program Director: Paul Taylor 256.352.8310
## WSCC Health Division Program Admissions Requirements

### Program CLT
- **GPA:** 2.5
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** Recommended
- **Program App Required:** No
- **Application Due Date:** April 15 & June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program DNT (AAS)(CERT)
- **GPA:** 2.3+
- **Testing Requirements:** ACT - 16
- **Prerequisite Courses:** Recommended
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program DHY
- **GPA:** 2.5+
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** Recommended
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program DI (RAD)
- **GPA:** 2.5+
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** Recommended
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program DMS
- **GPA:** *2.5
- **Testing Requirements:** ACT - 19
- **Prerequisite Courses:** Yes
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program HIT (AAS)
- **GPA:** *2.5
- **Testing Requirements:** ACT - 17, COMPASS
- **Prerequisite Courses:** RDG≥80 (3 yrs) or ACT RDG-18 (3 yrs)
- **Observation Hours:** No
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** 5-6
- **Summer Admittance:** Fall

### Program RPT
- **GPA:** 2.0+
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** BIO 103 & BIO 201 & MTH 100, ENG 101
- **Program App Required:** Yes
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program OTA
- **GPA:** *2.5
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** Yes
- **Program App Required:** 24 Hours/2 Sites
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program PTA
- **GPA:** *2.5
- **Testing Requirements:** ACT - 18
- **Prerequisite Courses:** Yes
- **Program App Required:** 24 Hours/2 Sites
- **Application Due Date:** June 1
- **Program Length:** (AAS) - 4 (CERT) - 3
- **Summer Admittance:** Fall

### Program HSM (AAS)
- **GPA:** 2.5
- **Testing Requirements:** None
- **Prerequisite Courses:** No
- **Program App Required:** 12 Hours
- **Application Due Date:** June 1 - Fall
- **Program Length:** 5
- **Summer Admittance:** Fa, Spr, & Sum

**Notes:**
- In addition to the cumulative GPA applicants must have a grade of "C" or higher in prerequisite general required courses to gain points in ranking.
- * GPA calculated for program will be on the general required courses ONLY.

**WSCC Program Director:** Paul Taylor 256.352.8310
Because the College is a comprehensive community college, it offers a variety of types of courses with various purposes. Many courses are designed for transfer to four-year institutions to fulfill baccalaureate degree requirements. We usually refer to these courses as transfer courses. All courses listed in Associate of Arts degree (A.A.) or Associate in Science degree (A.S.) programs are designed to transfer. All junior and community colleges in Alabama use the same course numbering system and descriptions. As a general rule, Alabama four-year institutions accept these courses for transfer, though each institution has unique requirements.

In order to facilitate the transfer process, students, faculty, and staff have access to the Statewide Articulation Reporting System (STARS) by Internet. STARS is a computerized articulation and transfer planning system designed to inform students who attend Alabama community colleges about degree requirements, course equivalents, and other transfer information pertaining to specific majors at each state-funded four-year institution. STARS is an efficient and effective way of providing students, counselors, and educators with accurate information upon which transfer decisions can be made. The STARS database, if used properly, can prevent the loss of course credit hours, can provide direction for the scheduling of course work, and can make the transition from one institution to another easier.

The College also offers courses which are designed primarily to prepare students for employment. Employment-oriented courses in Associate in Applied Science (A.A.S.), Associate in Occupational Technology (A.O.T.), and certificate programs may not transfer to some institutions. Please consult your advisor who can assist you in determining the courses and programs that meet your needs.

Another type of designation important to the College courses is that of “Degree Creditable.” For a course to be degree creditable it must require a high school diploma or a GED certificate for enrollment and be taught at a level that carries certain quality assumptions.

**Non-Degree Creditable Program**

Nursing Assistant

Numbers at the right of each course title indicate lecture, lab, and credit hours, respectively. For example, 3-2-4 would indicate three hours of lecture and two hours of lab per week for four hours of credit. Course numbers beginning with a zero (0) indicate that the course is a developmental course and as such does not meet graduation requirements in certificate or degree programs. An example is ENG 098.

**Index of Course Prefixes**

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**Accounting Technology (ACT)**

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

**ACT 104  Introduction to Business**  
3-0-3  
This course acquaints the student with American business as a dynamic process. Topics include the private enterprise system, forms of business ownership, marketing, production factors, personnel, labor, finance, and taxation. Upon completion, the student should be able to discuss and apply the basic business principles. Fall and Summer semester only.

**ACT 114  Introduction to Accounting**  
3-0-3  
This course introduces the student to accounting principles and practices of accounting for governmental and not-for-profit organizations. Emphasis is placed on fund accounting and its applications. Upon completion, students should be able to apply cost accounting principles and techniques. This course is offered only in the fall semester.

**ACT 115  Introduction to Accounting**  
3-0-3  
This course introduces the student to the computer resources available for use with the accounting program. Emphasis is placed on accounting spreadsheets and financial accounting software packages. Upon completion, the student should be able to use the computer resources in the accounting program.

**ACT 195 Accounting CO-OP**  
0-3-3  
PREREQUISITE: ACT 247  
This course provides work experience with a college-approved employer in an area related to the student’s program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work reated competencies.

**ACT 246  Microcomputer Accounting**  
3-0-3  
PREREQUISITE: BUS 241  
This course utilizes the microcomputer in the study of financial accounting principles and practices. Emphasis is placed on the use of software programs for financial accounting applications. Upon completion, the student should be able to use software programs for financial accounting applications. This course is offered only in the spring semester.

**ACT 247  Advanced Accounting Applications on the Microcomputer**  
3-0-3  
PREREQUISITE: ACT 246  
In this course, students use the microcomputer in managerial accounting. Emphasis is on a variety of software programs for managerial accounting applications. Upon completion, the student should be able to use various managerial accounting software programs. This course is offered only in the spring semester.

**ACT 249  Payroll Accounting**  
3-0-3  
PREREQUISITE: BUS 241 or OAD 135  
This course focuses on federal, state, and local laws affecting payrolls. Emphasis is on payroll accounting procedures and practices, and on payroll tax reports. Upon completion, the student should be able to apply knowledge of federal, state, and local laws affecting payrolls. This course is offered only in the spring semester.

**ACT 253  Individual Income Tax**  
3-0-3  
PREREQUISITE: BUS 241  
This course focuses on the fundamentals of the federal income tax laws with primary emphasis on those affecting the individual. Emphasis is on gross income determination, adjustments to income, business expenses, itemized deductions, exemption, capital gains/losses, depreciation, and tax credits. Upon completion, the student should be able to apply the fundamentals of the federal income tax laws affecting the individual. This course is offered only in the spring semester.

**ACT 254  Business Income Tax**  
3-0-3  
PREREQUISITE: BUS 241 and ACT 253  
This course focuses on federal income tax laws concerning business entities. Emphasis is on income tax investment of partnerships, corporation, LLPs and LLCs. Upon completion of this course, the student will be able to apply federal income tax laws concerning business entities. This course is offered only in the summer semester.

**ACT 256  Cost Accounting**  
3-0-3  
PREREQUISITE: BUS 242  
This course familiarizes the student with cost accounting principles and techniques. Emphasis is on procedures to provide data for job order and continuous process types of industries, determination of unit costs, and preparation of cost reports. Upon completion, the student should be able to apply cost accounting principles and techniques. This course is offered only in the summer semester.

**ACT 257  Governmental and Not-For-Profit Accounting**  
3-0-3  
PREREQUISITE: ACT 256 or BUS 241  
This course is an introduction to the principles, concepts and practices of accounting for governmental and not-for-profit organizations. Emphasis is on fund accounting and its utilization in governmental agencies, colleges and universities, hospitals, and other not-for-profit organizations. Upon completion of this course, the student will be able to apply the principles, concepts, and practices of governmental and not-for-profit accounting.

**Air Conditioning/Refrigeration Technology (ACR)**

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

**ACR 111  Principles of Refrigeration**  
1-2-3  
This course emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVACR system components, common, and specialty tools for HVACR, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVACR tools, and maintain components of a basic compression refrigeration system.

**ACR 112  HVACR Service Procedures**  
1-2-3  
This course covers system performance checks and refrigerant cycle diagnosis. Emphasis is placed on the use of refrigerant recovery/recycle units, industry codes, refrigerant coils, and...
correct methods of charging and recovering refrigerants. Upon completion, students should be able to properly recover/recycle refrigerants and demonstrate safe, correct service procedures which comply with the no-venting laws.

**ACR 113 Refrigeration Piping Practices** 1-2-3
This course introduces students to the proper installation procedures of refrigerant piping and tubing for the heating, ventilation, air conditioning, and refrigeration industry. This course includes various methods of working with and joining tubing. Upon completion, students should comprehend related terminology, be able to fabricate pipe, tubing, and pipe fittings.

This course provides instruction on general service and installation for common gas furnace system components. Upon completion, students will be able to install and service gas furnaces in a wide range of applications.

**ACR 120 Fundamentals of Electric Heating Systems** 1-2-3
This course covers the fundamentals of electric furnace systems. Emphasis is placed on components, general service procedures, and basic installation. Upon completion, students should be able to install and service electric furnaces, heat pumps, and solar and hydronics systems.

**ACR 121 Principles of Electricity for HVACR** 1-2-3
This course is designed to provide the student with the basic knowledge of electrical theory and circuitry as it pertains to air conditioning and refrigeration. This course emphasizes safety, definitions, symbols, laws, circuits, and electrical test instruments. Upon completion, students should understand and be able to apply the basic principles of HVACR circuits and circuit components.

**ACR 122 HVACR Electrical Circuits** 1-2-3
This course introduces the student to electrical circuits and diagrams. Electrical symbols and basic wiring diagrams are constructed in this course. Upon completion, student should understand standard wiring diagrams and symbols and be able to construct various types of electrical circuits.

**ACR/ASC 123 HVACR Electrical Components** 1-2-3
This course introduces students to electrical components and controls. Emphasis is placed on the operations on motors, relays, contactors, starters, and other HVAC electrical components. Upon completion, students should be able to install electrical components and determine their proper operation.

**ACR 130 Computer Assisted HVAC Troubleshooting** 0-1-1
This course focuses on troubleshooting procedures. Emphasis is placed on the proper use of test equipment and machine/electrical malfunctions. Upon completion, student should be able to diagnose and repair service problems in HVAC equipment.

**ACR 132 Residential Air Conditioning** 1-2-3
This course introduces students to residential air-conditioning systems. Emphasis is placed on the operation, service, and repair of residential air-conditioning systems. Upon completion, students should be able to service and repair residential air-conditioning systems.

**ACR 135 Mechanical/Gas/Safety Codes** 3-0-3
This course is to enhance the student knowledge of the Southern Mechanical and Gas Code as well as fire and job safety requirements. Emphasis is placed on code book content and compliance with installation requirements. Upon completion, students should be able to apply code requirements to all work.

**ACR 141 Environmental Systems** 2-2-4
This course provides students with knowledge and skills of environmental chambers. Topics include theory of the refrigerant components and refrigerant circuits, programmable controllers, electrical pressure and calibration instruments, and places emphasis on safety. Upon course completion, students should be able to apply environmentally-safe practices.

**ACR 147 Refrigeration Transition and Recovery Theory** 3-0-3
This course is EPA-approved and covers material relating to the requirements necessary for type I, II, and III universal certification. Upon completion, students should be prepared to take the EPA 608 certification examination.

**ACR 148 Heat Pump Systems I** 1-2-3
Instruction received in this course centers around the basic theory and application of heat pump systems and components. Upon completion, students will be able to install and service heat pumps in a wide variety of applications.

**ACR 181 Special Topics in Air Conditioning and Refrigeration I** 3-0-3
This course provides specialized instruction in various areas related to the air conditioning and refrigeration industry.

**ACR 182 Special Topics in Air Conditioning and Refrigeration II** 0-3-3
This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry.

**ACR 183 Special Topics in Air Conditioning and Refrigeration** 1-0-1
This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry.

**ACR 195 CO-OP** 0-3-3
**PREREQUISITE:** Instructor approval required.
These courses constitute a series wherein the student works on a part-time basis in a job directly related to Air Conditioning/Refrigeration. In these courses the employer evaluates the student’s productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

**ACR 203 Commercial Refrigeration** 1-2-3
This course focuses on commercial refrigeration systems. Emphasis is placed on evaporators, condensers, compressors, expansion devices, special refrigeration components and application of refrigeration systems. Upon completion, students should be able to service and repair commercial refrigeration systems.

**ACR 205 System Sizing and Air Distribution** 1-2-3
This course provides instruction in the load calculation of a structure and system sizing. Topics of instruction include heat loss, heat gain, equipment and air distribution sizing, and factors making acceptable indoor air quality. Upon course completion, students should be able to calculate system requirements.
ACR 209 Commercial Air Conditioning Systems 1-2-3
This course focuses on servicing and maintaining commercial and residential HVACR systems. Topics include system component installation and removal and service techniques. Upon completion, the student should be able to troubleshoot and perform general maintenance on commercial and residential HVACR systems.

Art (ART)

ART 100 Art Appreciation 3-0-3
This course is designed to help the student find personal meaning in works of art and develop a better understanding of the nature and validity of art. Emphasis is on the diversity of form and content in original art work. Upon completion, students should understand the fundamentals of art and the materials used, and have a basic overview of the history of art.

+ART 101 Art Workshop I 0-6-3
PREREQUISITE: Permission of the instructor.
This course is designed for both non-art and art majors who are interested in a variety of art projects concerned with community or college-related activities.

+ART 102 Art Workshop II 0-6-3
PREREQUISITE: Permission of the instructor.
This course is designed for both non-art and art majors who are interested in a variety of art projects concerned with community or college-related activities.

ART 113 Drawing I 0-6-3
This course provides the opportunity to develop perceptual and technical skills in a variety of media. Emphasis is placed on communication through experimenting with composition, subject matter, and technique. Upon completion, students should demonstrate and apply the fundamentals of art to various creative drawing projects.

ART 114 Drawing II 0-6-3
PREREQUISITE: ART 113.
This course advances the students drawing skills in various art media. Emphasis is placed on communication through experimentation, composition, technique and personal expression. Upon completion, students should demonstrate creative drawing skills, the application of the fundamentals of art, and the communication of personal thoughts and feelings.

ART 121 Two-Dimensional Composition I 0-6-3
This course introduces the basic of concepts of two-dimensional design. Topics include the elements and principles of design with emphasis on the arrangements and relationships among them. Upon completion, students should demonstrate an effective use of these elements and principles of design in creating two-dimensional compositions.

+ART 122 Two-Dimensional Composition II 0-6-3
PREREQUISITE: ART 121.
This course covers the theories and practice of composing two-dimensional images. Emphasis is placed on the relation between the basic elements and principles of design and their impact on the visual message. Upon completion, students should, through personal expression, demonstrate an effective use of these elements and principles of design in creating two-dimensional compositions.

ART 127 Three-Dimensional Composition 0-6-3
This introduction to art materials and principles of design acquaints the beginner with fundamentals of three-dimensional art. This course is open to all students and is especially recommended for those who plan further study in art and art education.

ART 133 Ceramics I 0-6-3
This course introduces methods of clay forming as a means of expression. Topics may include hand building, wheel throwing, glazing, construction, design, and the functional and aesthetic aspects of pottery. Upon completion, students should demonstrate through their work, a knowledge of the methods, as well as an understanding of the craftsmanship and aesthetics involved in ceramics.

ART 134 Ceramics II PREREQUISITE: ART 133.
This course develops the methods of clay forming as a means of expression. Topics may include hand building, glazing, design and the functional and aesthetic aspects of pottery, although emphasis will be placed on the wheel throwing method. Upon completion, students should demonstrate improved craftsmanship and aesthetic quality in the production of pottery.

ART 173 Photography I 0-6-3
This course is an introduction to the art of photography. Emphasis is placed on the technical and aesthetic aspects of photography with detailed instruction in darkroom techniques. Upon completion, students should understand the camera as a creative tool, understand the films, chemicals and papers, and have a knowledge of composition and history.

ART 174 Photography II PREREQUISITE: ART 173.
This course advances the students’ technical and aesthetic knowledge of photography beyond the introductory level. Emphasis is placed on photographic composition and darkroom techniques as a means of communication. Upon completion, students should demonstrate through the photographic process their creative and communication skills.

+ART 203 Art History I 3-0-3
This course covers the chronological development of different forms of art, such as sculpture, painting, and architecture. Emphasis is placed on history from the ancient period through the Renaissance. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles and the impact of society on the arts.

+ART 204 Art History II 3-0-3
This course covers a study of the chronological development of different forms of art, such as sculpture, painting, and architecture. Emphasis is placed on history from the Baroque to the present. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles, and the impact of society on the arts.

+ART 221 Computer Graphics I 0-6-3
This course is designed to acquaint the student with the technology, vocabulary, and procedures used to produce artworks with computers. Emphasis is placed on the fundamentals of art, creativity, and the understanding of various graphic software. Upon completion, students should demonstrate a knowledge of computer graphics through production on a graphic program in a computer environment.
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<td>Computer Graphics II</td>
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<td>These courses are designed to enhance the student's ability to produce computer generated graphics. Emphasis is on the application of original design to practical problems using a variety of hardware and software. Upon completion, students should have an understanding of professional computer graphics.</td>
<td>PREREQUISITE: ART 221 or permission of instructor.</td>
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<td>+ART 233</td>
<td>Painting I</td>
<td>0-6-3</td>
<td>This course is designed to introduce the student to fundamental painting processes and materials. Topics include art fundamentals, color theory, and composition. Upon completion, students should be able to demonstrate the fundamentals of art and discuss various approaches to the media and the creative processes associated with painting.</td>
<td>PREREQUISITE: ART 233.</td>
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<td>+ART 234</td>
<td>Painting II</td>
<td>0-6-3</td>
<td>This course is designed to develop the student's knowledge of the materials and procedures of painting beyond the introductory level. Emphasis is placed on the creative and technical problems associated with communicating through composition and style. Upon completion, students should be able to demonstrate the application of the fundamentals of painting and the creative process to the communication of ideas.</td>
<td>PREREQUISITE: ART 234.</td>
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<td>+ART 291</td>
<td>Supervised Study in Studio Art I</td>
<td>0/1-4/1-4</td>
<td>This course is designed to enable the student to continue studio experiences in greater depth. Topics are to be chosen by the student with the approval of the instructor. Upon completion, students should have a greater expertise in a particular area of art.</td>
<td>PREREQUISITE: Permission of the instructor.</td>
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<td>+ART 292</td>
<td>Supervised Study in Studio Art II</td>
<td>0/1-4/1-4</td>
<td>This course is designed to enable the student to continue studio experiences in greater depth. Topics are to be chosen by the student with the approval of the instructor. Upon completion, students should have a greater expertise in a particular area of art.</td>
<td>PREREQUISITE: ART 291 or permission of the instructor.</td>
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<td>ART 299</td>
<td>Art Portfolio</td>
<td>0/1-4/1-4</td>
<td>This course is designed to help the art major in the preparation and presentation of an art portfolio. Emphasis is placed on representing the student's potential as an artist in order to interest employers, clients or schools. Upon completion, students should be able to make a professional presentation of their design and communication skills.</td>
<td>PREREQUISITE: Permission of the instructor.</td>
</tr>
<tr>
<td>+ART 111</td>
<td>Non-Structural Repair</td>
<td>1-2-3</td>
<td>Students are introduced to basic principles of non-structural panel repairs. Topics include shop safety, identification and use of hand/power tools, panel preparation, sheet metal repairs, and materials.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 114</td>
<td>Non-Structural Panel Replacement</td>
<td>1-2-3</td>
<td>Students are introduced to principles of non-structural panel replacement. Topics include replacement and alignment of bolt on panels, full and partial panel replacement procedures, and attachment methods.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 122</td>
<td>Surface Preparation</td>
<td>1-2-3</td>
<td>This course introduces students to methods of surface preparation for vehicular refinishing. Topics include sanding techniques, metal treatment, selection undercoats, and proper masking procedures.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 123</td>
<td>Paint Application &amp; Equipment</td>
<td>1-2-3</td>
<td>This course introduces students to methods of paint application and equipment used for vehicular refinishing. Topics include spray gun and related equipment use, paint mixing, matching, and applying the final topcoat.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 151</td>
<td>Safety &amp; Environmental Practices</td>
<td>1-2-3</td>
<td>This course is designed to instruct the student in safe work practices. Topics include OSHA requirements, the right to know laws, EPA regulations, as well as state and local laws.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 154</td>
<td>Automotive Glass and Trim</td>
<td>1-2-3</td>
<td>This course is a study of automotive glass and trim. Emphasis is placed on removal and replacement of structural glass, non-structural glass, and automotive trim. Upon completion, students should be able to remove and replace automotive trim and glass.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 156</td>
<td>Cutting and Welding</td>
<td>1-2-3</td>
<td>This course provides instruction in automotive cutting and welding processes. Emphasis is placed on safety, plasma arc and oxy-acetylene cutting, resistance type spot welding, and Metal Inert Gas (MIG) welding. Upon completion, students should be able to safely perform automotive cutting and welding procedures.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 157</td>
<td>Plastic Repairs</td>
<td>1-2-3</td>
<td>This course introduces students to various automotive cutting and welding processes. Emphasis is placed on safety, plasma arc and oxy-acetylene cutting, resistance type spot welding, and Metal Inert Gas (MIG) welding. Upon completion, students should be able to safely perform automotive cutting and welding procedures.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 181</td>
<td>Special Topics in Auto Body</td>
<td>0-3-3</td>
<td>This course is guided independent study in special projects to give the student additional training in a specific area of study. Emphasis is placed on individual student needs to improve or expand skills. Upon completion, students should be able to demonstrate skills to meet specific needs.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 182</td>
<td>Special Topics in Auto Body</td>
<td>0-3-3</td>
<td>This course is guided independent study in special projects to give the student additional training in a specific area of study. Emphasis is placed on individual student needs to improve or expand skills. Upon completion, students should be able to demonstrate skills to meet specific needs.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
<tr>
<td>ABR 213</td>
<td>Automotive Structural Analysis</td>
<td>1-2-3</td>
<td>Students learn methods of determining structural misalignment. Topics include methods of inspection, types of measuring equipment, data sheets, and identifying types of structural damage.</td>
<td>PREREQUISITE: ART 234.</td>
</tr>
</tbody>
</table>
ABR 214 Automotive Structural Repair 1-2-3
This course provides instruction in the correction of structural damage. Topics include types and use of alignment equipment, anchoring and pulling methods, and repair/replacement of structural components.

ABR 223 Automotive Mechanical Components 1-2-3
This course provides instruction in collision related mechanical repairs. Emphasis is placed on diagnosis and repairs to drive train, steering/suspension components, and various other mechanical repairs.

ABR 224 Automotive Electrical Components 1-2-3
This course provides instruction in collision related electrical repairs and various restraints systems, including seat belts, seat belt tensioners, and airbags. Topics include basic DC theory, types of diagnostic equipment, circuit protection, wire repair and use of wiring diagrams, airbag modules, and impact sensors.

ABR 255 Steering & Suspension 1-2-3
This course introduces students to the various types of suspension and steering systems used in the automotive industry. Emphasis is placed on system components, suspension angles, and effect of body/frame alignment on these components and angles.

ABR 258 Heating & AC in Collision Repair 1-2-3
This course is a study of automotive air conditioning, heating, and cooling systems. Topics include automotive air conditioning, heating and cooling systems theory, component replacement and system services.

ABR 261 Restraint Systems 1-2-3
Both the function and design of various restraints and passive restraints systems, including seat belts, seat belt tensioners, and airbags, will be discussed. Topics include airbag modules and impact sensors for both front and side airbag systems. Students learn about using service manuals, flow charts, and wiring diagrams during the diagnosis and repair process.

ABR 265 Paint Defects & Final Repairs 1-2-3
This course introduces students to methods of identifying paint defects, causes, cures, and final detailing. Students learn to troubleshoot and correct paint imperfections.

ABR 266 Aluminum Welding in Collision Repair 1-2-3
This course covers the principles and techniques of aluminum GMA (MIG) welding. Students learn to set up and tune a welding machine, address safety issues, perform proper welding techniques, prepare metal surfaces, and identify and correct weld defects.

ABR 267 Shop Management 1-2-3
This course introduces the students to the basic principles of body shop management. Emphasis is placed on management structure, customer/insurance company relations, sound business practices, principles of cycle time, and basic collision/damage estimation. Upon completion, students should be able to understand the principles of operating a collision repair facility.

ABR 281 Special Topics in Auto Body 0-6-3
This course is guided independent study in special projects to give the student additional training in a specific area selected by the instructor. Emphasis is placed on individual student’s need to improve or expand skills. Upon course completion, students should be able to demonstrate skills to meet specific needs.

ABR 293 Auto Body Repair Co-op 0-3-3
This course is designed to provide practical shop experience for advanced students through part-time employment in the collision repair industry. Emphasis is placed on techniques used in collision repair facilities. Upon completion, students should have gained skills necessary for entry level employment.

Advanced Manufacturing MSSC Certified Production Technician

ADM 291 MSSC Safety Course 3-0-3
PREREQUISITE: As determined by college.
This course is designed to provide students with knowledge and skills related to safety in a manufacturing environment. Topics covered include
- Work in a safe an productive manufacturing workplace
- Perform safety and environmental inspections
- Perform emergency drills and participate in emergency teams
- Identify unsafe conditions and take corrective action
- Provide safety orientation for all employees
- Train personnel to use equipment safely
- Suggest process and procedures that support safety of work environment
- Fulfill safety and health requirements for maintenance, installation and repair
- Monitor safe equipment and operator performance
- Utilize effective, safety-enhancing workplace practices

This course is equivalent to AUT 102 and WKO 131. Students completing this course will receive an MSSC certificate in Safety. Students completing courses ADM 291, 292, 293 and 294 will receive the Certified Production Technician credential.

ADM 292 MSSC Quality Practices and Measurement Course 3-0-3
PREREQUISITE: ADM 291 MSSC Safety Course
This course is designed to provide students with knowledge and skills related to quality practices and measurement in a manufacturing environment. Topics covered include
- Participate in periodic internal quality audit activities
- Check calibration of gages and other data collection equipment
- Suggest continuous improvements
- Inspect materials and product/process at all stages to ensure they meet specifications
- Document the results of quality problems
- Communicate quality problems
- Take corrective actions to restore or maintain quality
- Record process outcomes and trends
- Identify fundamentals of blueprint reading
- Use common measurement systems and precision measurement tool

This course is equivalent to ADM 106 and WKO 132. Students completing this course will receive an MSSC certificate in quality practices and measurement. Students completing courses ADM 291, 292, 293 and 294 will receive the Certified Production Technician credential.

ADM 293 MSSC Manufacturing Processes and Production Course 3-0-3
PREREQUISITE: ADM 291 MSSC Safety Course
This course is designed to provide students with knowledge and skills related to manufacturing processes and production in a manufacturing environment. Topics covered include
• Identify customer needs
• Determine resources available for the production process
• Set up equipment for the production process
• Set team production goals
• Make job assignments
• Coordinate work flow with team members and other work groups
• Communicate production and material requirements and product specifications
• Preform and monitor the process to make the product
• Document product and process compliance with customer requirements
• Prepare final product for shipping or distribution

This course is equivalent to AUT 144 and WKO 133. Students completing this course will receive an MSSC certificate in manufacturing processes and production. Students completing courses ADM 291, 292, 293 and 294 will receive the Certified Production Technician credential.

ADM 294 MSSC Maintenance Awareness Course 3-0-3
PREREQUISITE: ADM 291 MSSC Safety Course
This course is designed to provide students with knowledge and skills related to maintenance awareness in a manufacturing environment. Topics covered include:
• Prepare preventative maintenance and routine repair
• Monitor indicators to ensure correct operations
• Perform all housekeeping to maintain production schedule
• Recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with:
  1. electrical systems;
  2. pneumatic systems
  3. hydraulic systems;
  4. machine automation systems
  5. lubrication systems
  6. bearings and couplings

This course is equivalent to MET 220 and WKO 134. Students completing this course will receive an MSSC certificate in maintenance awareness. Students completing courses ADM 291, 292, 293, and 294 will receive the Certified Production Technician credential.

Courses will be articulated.

Basic Automotive Service Technology and Advanced Automotive Service Technology (AUM)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

AUM 101 Fundamentals of Automotive Technology 1-2-3
This course provides basic instruction in Fundamentals of Automotive Technology.

AUM 112 Electrical Fundamentals 1-2-3
This course introduces the principles and laws of electricity. Emphasis is placed on wiring diagrams, test equipment, and identifying series, parallel and series-parallel circuits. Upon completion, students should be able to calculate, build, and measure circuits.

AUM 121 Braking Systems 1-2-3
This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of brakes. ABR 223 Automotive Mechanical Components is a suitable substitute for this course.

AUM 122 Steering, Suspension and Alignment 1-2-3
This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of steering and suspension. ABR 255 - Steering & Suspension is a suitable substitute for this course.

AUM 124 Automotive Engines 1-2-3
This course provides instruction on the operation, design, and superficial repair of automotive engines. Emphasis is placed on understanding the four stroke cycle, intake and exhaust manifolds and related parts, engine mechanical timing components, engine cooling and lubrication system principles and repairs, and basic fuel and ignition operation.

AUM 130 Drive Train and Axles 1-2-3
This course provides basic instruction in automotive drive trains and axles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability. ABR 223 Automotive Mechanical Components is a suitable substitute for this course.

AUM 133 Motor Vehicle Air Conditioning 1-2-3
This course provides basic instruction in theory, operation, and repair of automotive heating and air conditioning systems. Emphasis is placed on the understanding and repair of vehicle air conditioning and heating systems, including but not limited to air management, electrical and vacuum controls, refrigerant recovery, and component replacement. ABR 258 - Heating and AC in Collision Repair is a suitable substitute for this course.

AUM 162 Electrical and Electronic Systems 1-2-3
This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of battery, starting, charging, and lighting systems, subsystems, and components.

AUM 182 Special Topics in Electrical Systems 0-2-2
This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of battery, starting, charging, and lighting systems, subsystems, and components.

AUM 212 Advanced Electrical and Electronic Systems 1-2-3
This course provides instruction in advanced automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of advanced electrical and electronic systems, subsystems, and components.

AUM 220 Advanced Automotive Engines 1-2-3
This course provides in-depth instruction concerning internal engine diagnosis, overhaul and repair, including but not necessarily limited to the replacement of timing chains, belts, and gears, as well as the replacement or reconditioning of valve train components as well as replacement of pistons, connecting rods, piston rings, bearings, lubrication system components, gaskets, and oil seals.

AUM 224 Manual Transmission and Transaxle 1-2-3
This course covers basic instruction in manual transmissions and transaxles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability.
AUM 230  Auto Transmission and Transaxle  1-2-3
This course covers basic instruction in automatic transmissions and transaxles. Emphasis is placed on the comprehension of principles and power flow of automatic transmissions and repairing or replacing internal and external components.

AUM 239  Engine Performance  1-2-3
This course provides basic instruction in engine performance with emphasis on fuel and ignition systems relating to engine operation.

AUM 244  Engine Performance and Diagnostics  1-2-3
This course provides advanced instruction in engine performance. Emphasis is placed on engine management and computer controls of ignition, fuel, and emissions systems relating to engine performance and driveability.

AUM 246  Automotive Emissions  1-2-3
This is an introductory course in automotive emission systems. Emphasis is placed on troubleshooting and repair of systems, subsystems, and components.

AUM 281  Special Topics in Transmissions  0-3-3
These courses are designed to allow the student to specialize in a particular area of study with minimum instruction in automotive mechanics application and with evaluation at the instructor’s discretion. Emphasis is placed on a topic/project that the student is interested in and may include any automotive or related area in automotive mechanics. Upon completion, the student should be able to work with minimum instruction and execute the necessary techniques to finish a live work project of his/her choice.

AUM 291  CO-OP  0-3-3
PREREQUISITE: Instructor approval required. These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive mechanics. In these courses the employer evaluates the student’s productivity and the student submits a descriptive report of his/her work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

**Biology (BIO)**

BIO 101  Introduction to Biology I  3-1-4
Introduction to Biology I is the first of a two-sequence course designed for non-science majors. It covers historical studies illustrating the scientific method, cellular structure, bioenergetics, cell reproduction, Mendelian and molecular genetics, and a survey of human organ systems. A 120-minute lab is required.

BIO 102  Introduction to Biology II  3-1-4
PREREQUISITE: BIO 101
Introduction to Biology II is the second of a two-sequence course designed for non-science majors. It covers evolutionary principles and relationships, environmental and ecological topics, classification, and a survey of biodiversity. A 120-minute lab is required.

BIO 103  Principles of Biology I  3-1-4
BIO 103A is the theory portion only of BIO 103. Students must take BIO 103L as a co-requisite to BIO 103A. BIO 103L is the lab portion that accompanies the lecture class. This is an introductory course for science and non-science majors. It covers physical, chemical, and biological principles common to all organisms. These principles are explained through a study of cell structure and function, cellular reproduction, basic biochemistry, cell energetics, the process of photosynthesis, and Mendelian and molecular genetics. Also included are the scientific method, basic principles of evolution, and an overview of the diversity of life with emphasis on viruses, prokaryotes, and protist. A 120 minute laboratory is required.

BIO 104  Principles of Biology II  3-1-4
PREREQUISITE: BIO 103
This course is an introduction to the basic ecological and evolutionary relationships of plants and animals and a survey of plant and animal diversity including classification, morphology, physiology, and reproduction. A 180 minute laboratory is required.

BIO 111  Survey of Human Biology  3-1-4
This course for the non-science major covers an overview of structure and function of the human body with an emphasis on major organ systems. Laboratory is required. This course is offered upon sufficient enrollment, and is not a core transfer course.

BIO 201  Human Anatomy and Physiology I  3-1-4
*BIO 103 is strongly recommended
Human Anatomy and Physiology I covers the structure and function of the human body. Included is an orientation of the human body, basic principles of chemistry, a study of cells and tissues, metabolism, joints, the integumentary, skeletal, muscular, and nervous systems, and the senses. Dissection, histological studies, and physiology are featured in the laboratory experience. A 120 minute laboratory is required.

BIO 202  Human Anatomy and Physiology II  3-1-4
PREREQUISITE: BIO 201.
Human Anatomy and Physiology II covers the structure and function of the human body. Included is a study of basic nutrition, basic principles of water, electrolyte, and acid-base balance, the endocrine, respiratory, digestive, excretory, cardiovascular, lymphatic, and reproductive systems. Dissection, histological studies, and physiology are featured in the laboratory experience. A 120 minute laboratory is required.

BIO 220  General Microbiology  2-2-4
PREREQUISITE: BIO 103 or BIO 103A or BIO 201
(RECOMMENDED 4 SEMESTER HOURS OF CHEMISTRY).
This course includes historical perspectives, cell structure and function, microbial genetics, infectious diseases, immunology, distribution, physiology, culture, identification, classification, and disease control of microorganisms. The laboratory experience includes micro-techniques, distribution, culture, identification, and control. Two 120 minute laboratories are required.

BIO 250  Directed Studies in Biology I  0/2-8/1-4
PREREQUISITE: Permission of the instructor. This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to the beginning of the class. Upon completion students will be able to demonstrate knowledge of the topics as specified by the instructor.

*Availability of this course is dependent upon sufficient demand. See advisor for further information.*
Business (BUS)

BUS 193  Business Co-op I  1-0-1
PREREQUISITE: Successful completion of two (2) business courses.
This course is part of a series wherein the student works in an accounting-related job. Emphasis is placed on student’s work experience as it integrates academic knowledge with practical application through exposure to accounting practices in the business environment. The grade is based on the employer’s evaluation of each student’s productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

BUS 198  Computer Information Systems in a Call Center  3-0-3
PREREQUISITE: Instructor approval and minimum WorkKeys levels.
This course is a “hands-on” introduction to the computer systems used in a typical call center. Topics include computer fundamentals, basic hardware, and specific software applications common to the call center industry. Working within a customer information database and basic keyboarding will also be a component of this course.

BUS 199  Call Center Operations  2-0-2
PREREQUISITE: Instructor approval and minimum WorkKeys levels.
This course is an introduction to the call center environment. Topics include call center organizational structures, terminology, how calls are screened and routed, basic telephone functions, and the call flow process. Also included is an overview of customer service and the competitive advantage in the marketplace and performance measures used in typical call centers.

BUS 215  Business Communication  3-0-3
PREREQUISITE: ENG 101 This course covers written, oral and nonverbal communications. Topics include the application of communication principles to the production of clear, correct, and logically organized faxes, e-mail, memos, letters, resumes, reports, and other business communications. Fall and Summer semesters only.

BUS 241  Principles of Accounting I  3-0-3
This course is designed to provide a basic theory of accounting principles and practices used by service and merchandising enterprises. Emphasis is placed on financial accounting, including the accounting cycle, and financial statement preparation analysis.

BUS 242  Principles of Accounting II  3-0-3
PREREQUISITE: BUS 241 With a “C” or above or permission of instructor.
This course is a continuation of BUS 241. In addition to a study of financial accounting, this course also places emphasis upon managerial accounting, with coverage of corporations, statement analysis, introductory cost accounting, and use of information for planning, control, and decision making.

BUS 248  Managerial Accounting  3-0-3
PREREQUISITE: BUS 242
This course is designed to familiarize the student with management concepts and techniques of industrial accounting procedures. Emphasis is placed on cost behavior, contribution approach to decision-making, budgeting, overhead analysis, cost-volume-profit, analysis and cost accounting systems. This course is offered only in the summer semester.

BUS 263  The Legal and Social Environment of Business  3-0-3
This course provides an overview of the legal and social environment for business operations with emphasis on contemporary issues and their subsequent impact on business. Topics include the Constitution, the Bill of Rights, the legislative process, civil and criminal law, administrative agencies, trade regulations, consumer protection, contracts, employment and personal property. Fall and Summer semesters only.

BUS 271  Business Statistics I  3-0-3
This is an introductory study of basic statistical concepts applied to economic and business problems. Topics include the collection, classification, and presentation of data, statistical description and analysis of data, measures of central tendency and dispersion, elementary probability, sampling, estimation and introduction to hypothesis testing.

BUS 272  Business Statistics II  3-0-3
PREREQUISITE: BUS 271.
This course is a continuation of BUS 271. Topics include sampling theory, statistical interference, regression and correlation, chi square, analysis of variance, time series index numbers, and decision theory. Offered in summer term only.

BUS 275  Principles of Management  3-0-3
This course provides a basic study of the principles of management. Topics include planning, organizing, staffing, directing, and controlling with emphasis on practical business applications. Fall and summer semesters only.

BUS 279  Small Business Management  3-0-3
This course provides an overview of the creation and operation of a small business. Topics include buying a franchise, starting a business, identifying capital resources, understanding markets, managing customer credit, managing accounting systems, budgeting systems, inventory systems, purchasing insurance, and the importance of appropriate legal counsel. Spring semester only.

BUS 285  Principles of Marketing  3-0-3
This course provides a general overview of the field of marketing. Topics include marketing strategies, channels of distribution, marketing research, and consumer behavior. Summer semester only.

BUS 298  Directed Studies  1-3/0/1-3
PREREQUISITE: Permission of the instructor.
This course offers independent study under faculty supervision. Emphasis is placed on subject relevancy and student interest and need.

Basic Cabinetmaking (CAB)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

CAB 101  Introduction to Cabinetmaking  1-2-3
This is a beginning woodworking course which deals with basic materials and processes. Topics include basic safety procedures while in the Cabinet shop, an introduction to the safe use of tools and equipment, basic measurement principles, wood products, cutting, and fastening. Upon course completion, students should be able to safely inspect and use shop equipment, measure, mark, and perform various types of cuts, and assemble a specified project.
CAB 102 Introduction to Lumber and Wood Products 2-1-3
This is an introductory course to lumber, grades, sizes, characteristics, and uses. Topics include the natural properties of trees, identification of various types of wood, the milling process, various defects found in wood, and how it is manufactured. Upon completion the students should be knowledgeable in the wood and wood products for the production of cabinets and fine furniture.

CAB 103 Sizes, Dimension, and Joints 1-2-3
This course includes the study of cutting lumber to dimensions and materials to size with power tools. Emphasis is on job planning and the construction of all types of joints made with hand and power tools. Upon course completion, students should be able to plan jobs, make shop drawings, job layouts and patterns.

CAB 104 Cabinet Shop Operations 3-0-3
This course covers start up and general operation of a cabinet shop. Topics include shop organization, fire safety, financing, and tool acquisition. Upon completion, students should have basic knowledge of starting a custom cabinet shop.

CAB 110 Equipment Maintenance 1-2-3
This is an introductory course to maintaining woodworking tools and equipment. Emphasis is on equipment inspection, cleaning and lubrication, as well as removing and replacing saw blades, jointer, planer, and planer knives. Upon course completion, students should be proficient in maintaining basic woodworking equipment.

CAB 141 Woodfinishing 0-3-3
Emphasis is on filling, rubbing, spraying, and building up finishes. Upon completion, students should be able to perform woodfinishing procedures.

CAB 145 Refinishing Furniture and Antiques 0-3-3
This course offers instruction in refinishing furniture and restoring antiques. Emphasis is on the removal of old finish by stripping, washing, and sanding furniture; repair of broken pieces; and the use of veneers in patching. Upon course completion, students should be able to refinish furniture and antiques.

CAB 193 Co-op PREREQUISITE: Permission of instructor.
These courses constitute a series wherein the student works on a part-time basis in a job directly related to cabinetmaking. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

CAB 204 Cabinetmaking and Millwork 1-2-3
PREREQUISITE: CAB 102 or permission of the instructor.
This course focuses on design and construction of casework. Topics include study of designs, construction and installation of kitchen cabinets, vanities, shelves, and other casework and the use and installation of cabinet hardware. Upon completion, students should be able to design, construct and install basic interior casework.

CAB 205 Furniture Construction 1-2-3
PREREQUISITE: Permission of the instructor.
This course covers design and construction of fine furniture. Emphasis is on the development of highly advanced woodworking skills, such as turning duplicate parts, joinery, building jigs and fixtures. Upon completion, students should be able to perform basic skills necessary to construct fine furniture.

CAB 230 Estimating Costs in Cabinetmaking 3-0-3
This course focuses on estimating costs necessary to complete cabinetmaking projects. Emphasis is on figuring costs of materials and labor and on the use of pertinent formulas. Upon completion, students should be able to estimate costs of complete cabinetmaking projects.

CAB 260 Woodturning PREREQUISITE: Permission of the instructor.
This course focuses on turning components for fine furniture projects. Emphasis is on operation and maintenance of wood lathes and tools. Upon completion, students should be able to turn duplicate posts and table legs.

Basic Carpentry (CAR)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

CAR 111 Construction Basics 3-0-3
This course introduces students to the opportunities in and requirements of the construction industry. Topics include economic outlook for construction, employment outlook, job opportunities, training, apprenticeship, entrepreneurship, construction tools, materials, and equipment, job safety and OSHA standards. Upon completion, students should be able to identify the job market, types of training, knowledge of apprenticeship opportunities, construction tools, materials, and safety procedures.

CAR 112 Floors, Walls, Site Prep 3-0-3
This course introduces the student to floor and wall layout, and construction. Topics include methods of house framing, components of floor framing, layouts, sub-flooring, connectors and fasteners, and site preparation. Upon completion, students should be able to identify various types of floor framing systems, select the sizes of floor joists, identify types of house framing, list types of fasteners, and identify property lines, set backs, and demonstrate a working knowledge of terrain and batter boards.

CAR 113 Floors, Walls, Site Prep Lab 0-3-3
COREQUISITE: CAR 112.
The student will engage in applications of floor and wall construction, application of required tools, use of the builder transit, level rod, tape measure and grade stakes. Emphasis is placed on cutting sill plates, floor joists, girders, header bridging, sub-flooring, stud wall partitions, door and window headers, wall bracing, leveling instruments, and batter boards. Upon completion, students should be able to layout and construct a floor, including the sill, joist bridging and openings, install sub-flooring, construct interior and exterior walls, and layout property stakes of site plans.

CAR 114 Construction Basics Lab 0-3-3
This course provides practical and safe application of hand, portable power, stationary and pneumatic tools, use of building materials, fasteners and adhesives, and job site safety. Emphasis is placed on the safe use of hand, power, and pneumatic tools, proper selection of lumber, plywood, byproducts, nails, bolts, screw, adhesives, fasteners, construction materials, and job safety. Upon course completion, the student should be able to identify hand, power, stationary, and pneumatic tools and demonstrate their safe use; identify Northwest-Shoals Community College 2019-2020
and properly select wood and non-wood building products, and properly use nails, fasteners and adhesives.

**CAR 121 Introduction to Blueprint Reading** 3-0-3
This course introduces the student to the basic concepts of blueprint reading. Topics include scales, symbols, site plans, and notations. Upon completion, the student should be able to identify drawings, scale various drawings, identify different types of lines, symbols, and notations.

**CAR 131 Roof and Ceiling Systems** 3-0-3
This course focuses on the design and installation of roof and ceiling systems. Emphasis is placed on rafters, trusses, ceiling joists, roof decking, and roofing materials. Upon completion, students should be able to design a roof and ceiling system, identify proper installation methods of roofing materials, and describe applicable safety rules.

**CAR 132 Interior and Exterior Finish** 1-2-3
This course introduces the student to interior and exterior finishing materials and techniques. Topics include interior trim of windows and doors, ceilings and wall moldings, exterior sidings, trim work, painting, and masonry finishes. Upon completion, students should be able to identify different types of doors, windows and moldings and describe the uses of each, identify types of exterior sidings and trim, and describe the different types of paint and their proper application.

**CAR 133 Roof and Ceiling Systems Lab** 0-3-3
**COREQUISITE: CAR 131.**
The course provides students with practical experience in building and installing roof and ceiling systems. Emphasis is placed on job site safety, layout and cutting of rafters and joists, cutting and building trusses, installing roof decking and roofing materials. Upon completion, students should be able to cut and install rafters, joists and trusses, cut and apply roof decking and roofing materials, and apply safety rules for job site.

**CAR 193 Internship in Carpentry** 0-3-3
This course is designed to provide exposure to carpentry practices in non-employment situations. Emphasis is placed on techniques used in the carpentry profession. This course allows students to refine their skills necessary for entry-level employment.

**CAR 206 Special Projects in Carpentry** 3-0-3
This course introduces the students to plan, execute, and present results of individual projects in carpentry. Emphasis is placed on enhancing skill attainment in the carpentry field. This culminating course allows students to independently apply skills attained in previous courses.

**CAR 226 Metal Framing** 0-3-3
This course introduces the students to metal framing of floors, walls, ceilings, and roofs. Emphasis is placed on metal frame construction. Upon completion, students are expected to be able to describe components and proper application of metal framing, properly construct floors, walls, ceilings, and roofs.

**CAR 228 Stairs, Molding, and Trim** 1-2-3
This course focuses on the basics of stair design, layout, and construction. Topics also include cutting and installing stair trim and molding. Upon course completion, students should be able to layout, cut, and construct stairs, and install trim and molding.

**CAR 232 Construction Project Management** 3-0-3
This course focuses on the basic information necessary for successfully managing a construction project. Topics include basic building blocks of scheduling, refining a schedule, techniques for estimating time to complete projects, timely delivery of materials, appropriate manpower scheduling, and use of construction management software. Upon completion, students are expected to understand the meaning and purpose of project planning and management, use of a schedule in management, and be able to communicate and coordinate work activities. The students should also be able to develop a comprehensive estimate for the completion of a construction project.

### Chemistry (CHM)

**CHM 099 Developmental Chemistry** 3-0-3
This course is designed for students with little or no background in chemistry. This preparatory course offers a detailed review of the mathematical base for chemistry, including formulas and equations, and covers basic chemical calculations of stoichiometry, gas laws and solutions. Laboratory techniques and safety are also included.

**CHM 104 Introduction to Inorganic Chemistry** 3-1-4
**PREREQUISITE: MTH 116 or MTH 098 or equivalent math placement score.**
This is a survey course of general chemistry for students who do not intend to major in science or engineering and may not be substituted for CHM 111. Lecture will emphasize the facts, principles, and theories of general chemistry including math operations, matter and energy, atomic structure, symbols and formulas, nomenclature, the periodic table, bonding concepts, equations, reactions, stoichiometry, gas laws, phases of matter, solutions, pH, and equilibrium reactions. Laboratory is required.

**CHM 105 Introduction to Organic Chemistry** 3-1-4
**PREREQUISITE: CHM 104 or CHM 111.**
This is a survey course of organic chemistry and biochemistry for students who do not intend to major in science or engineering. Topics will include basic nomenclature, classification of organic compounds, typical organic reactions, reactions involved in life processes, function of biomolecules, and the handling and disposal of organic compounds. Laboratory is required.

**CHM 111 College Chemistry I** 3-1-4
**PREREQUISITE: MTH 100 or equivalent math placement score.**
This is the first course in a two-semester sequence designed for the science or engineering major who is expected to have a strong background in mathematics. Topics in this course include measurement, nomenclature, stoichiometry, atomic structure, equations and reactions, basic concepts of thermochemistry, chemical and physical properties, bonding, molecular structure, gas laws, kinetic-molecular theory, condensed matter, solutions, colloids, and some descriptive chemistry topics. Laboratory is required.

**CHM 112 College Chemistry II** 3-1-4
**PREREQUISITE: CHM 111.**
This is the second course in a two-semester sequence designed primarily for the science and engineering student who is expected to have a strong background in mathematics. Topics in this course include chemical kinetics, chemical equilibria, acids and bases, ionic equilibria of weak electrolytes, solubility product principle, chemical thermodynamics, electrochemistry, oxidation-reduction, nuclear chemistry, an introduction to organic chemistry and biochemistry, atmospheric chemistry, and selected topics in descriptive chemistry including the metals, nonmetals, semi-metals,
coordination compounds, transition compounds, and post-transition compounds. Laboratory is required.

**+CHM 221 Organic Chemistry I** 3-1-4
PREREQUISITE: CHM 112.
This is the first course in a two-semester sequence. Topics in this course include nomenclature, structure, physical and chemical properties, synthesis, and typical reactions for aliphatic, alicyclic, and aromatic compounds with special emphasis on reaction mechanisms, spectroscopy, and stereochemistry. Laboratory is required and will include the synthesis and confirmation of representative organic compounds with emphasis on basic techniques.

**+CHM 222 Organic Chemistry II** 3-1-4
PREREQUISITE: CHM 221.
This is the second course in a two-semester sequence. Topics in this course include nomenclature, structure, physical and chemical properties, synthesis, and typical reactions for aliphatic, alicyclic, aromatic, and biological compounds, polymers and their derivatives, with special emphasis on reaction mechanisms, spectroscopy, and stereochemistry. Laboratory is required and will include the synthesis and confirmation of representative organic compounds with emphasis on basic techniques.

**CHM 250 Directed Studies in Chemistry** 1-3
PREREQUISITE: Divisional approval.
This course is designed for independent study in specific areas of chemistry chosen in consultation with a faculty member and carried out under faculty supervision. This course may be repeated three (3) times for credit.

*Availability of this course is dependent upon sufficient demand. See advisor for further information.*

**Child Development (CHD)**

*Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.*

**CHD 100 Introduction of Early Care and Education of Children** 3-0-3
This course introduces students to the child education and care profession. It is designed to increase understanding of the basic concepts of child development and the developmental characteristics of children from birth through age 8/9 years. This course is the foundation for planning appropriate activities for children and establishing appropriate expectations of young children. This class also offers an opportunity to study the developmental domains (social, emotional, cognitive/language and physical). Course includes observations of the young child in early childhood settings.

**CHD 201 Child Growth and Development Principles** 3-0-3
This course is a systematic study of child growth and development from conception through early childhood. Emphasis is placed on principles underlying physical, mental, emotional and social development, and on methods of child study and practical implications. Upon completion, students should be able to use knowledge of how young children differ in their development and approaches to learning to provide opportunities that support the physical, social, emotional, language, cognitive, and aesthetic development of children.

**CHD 202 Children’s Creative Experiences** 3-0-3
This course focuses on fostering creativity in preschool children and developing a creative attitude in teachers. Topics include selecting and developing creative experiences in language arts, music, art, science, math and movement with observation and participation with young children required. Upon completion, students should be able to select and implement creative and age-appropriate experiences for young children.

**CHD 203 Children’s Literature and Language Development** 3-0-3
This course surveys appropriate literature and language arts activities designed to enhance young children’s speaking, listening pre-reading and writing skills. Emphasis is placed on developmental appropriateness as related to language. Upon completion, students should be able to create, evaluate and demonstrate activities which support a language-rich environment for young children.

**CHD 204 Methods and Materials for Teaching Children** 3-0-3
This course introduces basic methods and materials used in teaching young children. Emphasis is placed on students compiling a professional resource file of activities used for teaching math, language arts, science and social studies concepts. Upon completion, students should be able to demonstrate basic methods of creating learning experiences using appropriate techniques, materials and realistic expectations.

**CHD 205 Program Planning for Educating Young Children** 3-0-3
This course is designed to give students practice in lesson and unit planning, writing behavioral objectives, and evaluating activities taught to young children. Emphasis is placed on identifying basic aspects of cognitive development and how children learn. Upon completion, students should be able to plan and implement developmentally appropriate curriculum and instructional practices based on knowledge of individual differences and the curriculum goals and content.

**CHD 206 Children’s Health and Safety** 3-0-3
This course introduces basic health, nutrition and safety management practices for young children. Emphasis is placed on setting up and maintaining a safe, healthy environment for young children including specific procedures for infants and toddlers and procedures regarding childhood illnesses and communicable diseases. Upon completion, students should be able to prepare a healthy, safe environment, plan nutritious meals and snacks, and recommend referrals if necessary.

**CHD 207 Observing and Recording Behaviors of Young Children** 3-0-3
PREREQUISITE: CHD 201.
This course will provide students information on child observations, portfolio building, observation documentation, and various recording techniques, as well as a review of child development principles. Students will also be given guidance for the appropriate use of assessment materials and ways to support and work with families. Course may include practice in documenting observations.

**CHD 208 Administration of Child Development Programs** 3-0-3
This course includes appropriate administrative policies and procedures relevant to preschool programs. Topics include local, state and federal regulations; budget planning; record
keeping; personnel policies and parent involvement. Upon completion, students should be able to identify elements of a sound business plan, develop familiarity with basic record-keeping techniques, and identify elements of a developmentally appropriate program.

CHD 209  Infant and Toddler Education Programs 3-0-3
This course focuses on child development from infancy to thirty months of age with emphasis on planning programs using developmentally appropriate material. Emphasis is placed on positive ways to support an infant's social, emotional, physical and intellectual development. Upon completion, students should be able to plan an infant-toddler program and environment which is appropriate and supportive of the families and the children.

CHD 210  Educating Exceptional Young Children With Exceptional Needs 3-0-3
This course explores the many different types of exceptionalities found in young children. Topics include speech, language, hearing and visual impairments; gifted and talented children; mental retardation; emotional, behavioral, and neurological handicaps. Upon completion, students should be able to identify appropriate strategies for working with young exceptional children.

CHD 211  Child Development Seminar 2-0-2
A selection of topics relating to young children are addressed in this course. Subject matter will vary according to industry and student needs. Upon completion, students should demonstrate competencies designed to assess course objectives.

CHD 214  Families and Communities in Early Care and Education Programs 3-0-3
This course provides students with information about working with diverse families and communities. Students will be introduced to family and community settings, the importance of relationships with children, and the pressing needs of today's society. Students will study and practice techniques for developing these important relationships and effective communication skills.

CHD 215  Supervised Practical Experience in Early Childhood Education 0-6-3
PREREQUISITE: Permission of the instructor.
This course provides a minimum of 90 hours of hands-on, supervised experience in an approved program for young children. Emphasis is placed on performance of daily duties which are assessed by the college instructor and the cooperating teacher. Upon completion, students should be able to demonstrate competency in a child care setting.

Pre-Computer Science/Computer Information Systems/Computer Information Systems Technology/Computer Technology (CIS)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

CIS 146  Microcomputer Applications 3-0-3
This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. This course will help prepare students for the MOS and IC3 certification. This course or an equivalent is CORE for the AAT and AAS CIS programs. NOTE: CIS 146 satisfies the mathematics proficiencies for Area III for the Cyber Security Technician Certificate and the Software Technician Certificate ONLY.

CIS 147  Advanced Microcomputer Applications 3-0-3
PREREQUISITE: CIS146 or permission of instructor.
This course is a continuation of CIS 146 in which students utilize the advanced features of topics covered in CIS 146. Advanced functions and integration of word processing, spreadsheets, database, and presentation packages among other topics are generally incorporated into the course and are to be applied to situations found in society and business. Upon completion, the student should be able to apply the advanced features of selected software appropriately to typical problems found in society and business. This course will help prepare students for the MOS certification. Offered only via distance education in the spring semester.

CIS 148  Post Advanced Microcomputer Applications
PREREQUISITE: CIS147
This course builds on concepts associated with various microcomputer applications with emphasis on advanced features commonly found in software applications. Advanced features of word processing, spreadsheets, database, and presentation packages are introduced. Features such as macros, Visual Basic Applications, and online features are included in the content of the course. Upon completion, the student will be able to apply the advanced features of selected software to the workplace. This course will help prepare students for the MOS certification. Offered only via distance education in the summer semester.

CIS 155  Introduction to Mobile App Development 3-0-3
The purpose of this course is to introduce the students to various app development tools for various mobile platforms. Specific topics include: app distribution sources, mobile device operating systems, surveys of app development software, processes for design, build, deploying, and optimizing apps. At the conclusion of this course students will be able to design, build, deploy, and optimize a basic app. Offered only in the fall semester.

CIS 157  Introduction to App Development With Swift
This introductory one semester course is designed to help students build a solid foundation in programming fundamentals using Swift as the language. Students get practical experience with the tools, techniques, and concepts needed to build a basic IOS system. Offered only on the Shoals campus.

CIS 189  Co-op for CIS I 3-0-3
This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.
CIS 199  Network Communications  3-0-3
This course is designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining an understanding of the terminology and technology involved in implementing networked systems. The course will cover the OSI and TCP/IP network models, communications protocols, transmission media, networking hardware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technology, the Internet, Intranets and network troubleshooting. Upon completion of the course, students will be able to design and implement a computer network. Students will create network shares, user accounts, and install print devices while ensuring basic network security. They will receive hands-on experience building a mock network in the classroom. This course will help prepare students for the CCNA and Network + certifications. This is a CORE course for the AAT, AAS CIS programs. CIS 161 or CIS 273 may be used as a suitable substitute for this course. Offered only on the Shoals campus in the summer semester.

CIS 202  Python Programming  3-0-3
This course is an introduction to the Python programming language. Topics include input and output, decision structures, repetition structures, functions, working with files, strings, object-oriented programming and inheritance. Upon completion, students will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. Offered only in the summer semester.

CIS 205  Control Language and Utilities Applications 3-0-3
This course introduces computer operation and the job or executive language on a mini- or mainframe computer using both batch and on-line techniques. Utilities including sorts, screen design aids, and control programs while operating system concepts such as scheduling are introduced. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. Offered only on the Shoals campus in the summer semester.

CIS 207  Introduction to Web Development  3-0-3
Notepad and Internet Explorer are used in this course. At the conclusion of this course, students will be able to use specified markup languages to develop basic Web pages. Offered only in the fall semester.

CIS 209  Advanced Web Development  3-0-3
This is an advanced Web design course emphasizing the use of scripting languages to develop interactive Web sites. Upon completion students will be able to create data driven Web sites. This course helps prepare students for the Certified Internet Webmaster (CIW) Foundations certification. XAMPP is a free web portable server used in this course. Offered only in the spring semester.

CIS 214  Security Analysis (Pen Testing)  3-0-3
This course introduces students to the concept of security analysis, or penetration testing, of information systems. Students will evaluate the security of a computer system or network, assessing security risks from the position of a potential attacker. Emphasis is on identifying security flaws and providing technical solutions. Offered only on the Shoals campus in the spring semester.

CIS 220  App Development With Swift  1-2-3
PREREQUISITE: CIS 157
This is the first of two courses designed to teach specific skills related to app development using Swift language. Offered only on the Shoals campus.

CIS 227  App Development With Swift II  1-2-3
PREREQUISITE: CIS 220
This course focuses on building specific features for IOS apps. Students apply their knowledge and skills to developing new apps. Offered only on the Shoals campus.

CIS 245  Cyber Defense  3-0-3
This course provides students with information on the concept of cyber defense. Topics include information relative to legal aspects of cyber-attacks, threats to various levels of national and local social infrastructure, financial systems, personal data, and other direct and indirect threats. As part of this course students explore current and historical cyber threats and U. S. policy regarding infrastructure protection. Offered only on the Shoals campus in the fall semester.

CIS 246  Ethical Hacking  3-0-3
This course emphasizes scanning, testing, and securing computer systems. The lab-intensive environment provides opportunities to understand how perimeter defenses work and how hackers are able to compromise information systems. With awareness of hacking strategies, students learn to counteract those attempts in an ethical manner. Offered only on the Shoals campus in the summer semester.

CIS 249  Microcomputer Operating Systems  3-0-3
This course provides an introduction to microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with the aid of its system programs. Upon completion, students should understand the function and role of the operating system, its operational characteristics, its configuration, how to execute programs, and efficient disk and file management. CIS 249 satisfies the written communication proficiency for Area I for the Cyber/Security Technician Certificate and the Software Technician Certificate ONLY. This course is offered only in distance format in the spring semester.

CIS 251  C++ Programming  3-0-3
This course is an introduction to the C++ programming language including object oriented programming. Topics include: problem solving and design; control structures; objects and events; user interface construction; and document and program testing. This course is offered only in the spring semester.

CIS 255  JAVA Programming  3-0-3
This course is an introduction to the Java programming language. Topics in this course include object-oriented programming constructs, Web page applet development, class definitions, threads, events and exceptions. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. This course is offered only in the fall semester.

CIS 261  COBOL Programming  3-0-3
This course is an introduction to the COBOL programming language. Included are structured programming techniques, report preparation, arithmetic operations, conditional
COURSE DESCRIPTIONS

This course is designed to provide the student with an opportunity to work in a degree/program related environment. Emphasis is placed on the student’s "real world" work experience as it integrates academics with practical applications that relate meaningfully to careers in the computer discipline. Significant is also placed on the efficient and accurate performance of job tasks as provided by the "real world" work experience. Grades for this course will be based on a combination of the employer's evaluation of the student, and the contents of a report submitted by the student. Upon completion of this course, the student should be able to demonstrate the ability to apply knowledge and skills gained in the classroom to a "real world" work experience.

This course is a case study involving the assignment of a complete system development project for analysis, programming, implementation, and documentation. Topics include planning system analysis and design, programming techniques, coding and documentation. Upon completion, students should be able to design, code, test and document a comprehensive computer information system.

This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be approved by the instructor prior to or at the beginning of the class. Upon completion, the student will be able to identify security risks and describe appropriate counter measures. This course is offered only on the Shoals campus in the spring semester.

This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the student’s productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

This course allows independent study under the direction of an instructor. Topics to be included in the course material will be approved by the instructor prior to or at the beginning of the class. Upon completion, the student will be able to demonstrate knowledge of the topics as specified by the instructor.

Computer Numerical Control (CNC)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

This is an introduction course in statistical process control of manufacturing processes. Topics include control charts, pareto diagrams, and cause-effect diagrams. Upon completion, students are expected to perform basic functions in analysis and control of manufacturing processes.

This course is designed to allow students to work in the lab with limited supervision. The student is to enhance their proficiency levels on various CNC machine tools. Upon completion, students are expected to plan, execute, and present results of advanced CNC products.

Cosmetology (COS)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

This course is designed to provide students with an overview of the history and development of cosmetology and standards of professional behavior. Students receive basic information regarding principles and practices of infection control, diseases, and disorders. Additionally, students receive introductory information regarding hair design. The information presented in this course is enhanced by hands-on application performed in a controlled lab environment. Upon completion, students should be able to apply safety rules and regulations and write procedures for skills identified in this course.

In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, and hairstyling. Emphasis is placed on disinfection, shampooing, hair shaping, and hairstyling for various types of hair for men and women. This course offers opportunities for students to put into practice concepts learned in the theory component from COS 111.
COS 113  Theory of Chemical Services  3-0-3
COREQUISITE: COS 114
During this course, students learn concepts of theory of chemical services related to the chemical hair texturing. Specific topics include basics of chemistry and electricity, properties of the hair and scalp, and chemical texture services. Safety considerations are emphasized throughout this course. This course is foundational for other courses providing more detailed instruction on these topics.

COS 114  Chemical Services Lab  0-3-3
COREQUISITE: COS 113
During this course students perform various chemical texturing activities. Emphasis is placed on cosmetologist and client safety, chemical use and handling, hair and scalp analysis, and client consulting.

COS 115  Hair Coloring Theory  3-0-3
COREQUISITE: COS 116 Hair Coloring Lab
In this course, students learn the techniques of hair coloring and hair lightening. Emphasis is placed on color application, laws, levels and classifications of color and problem solving. Upon completion, the student will be able to identify all classifications of haircoloring and the effects on the hair.

COS 116  Hair Coloring Lab  0-3-3
COREQUISITE: COS 115 Hair Coloring Theory
In this course, students apply hair coloring and hair lightening techniques. Topics include consultation, hair analysis, skin test and procedures and applications of all classifications of hair coloring and lightening. Upon completion, the student will be able to perform procedures for hair coloring and hair lightening.

COS 117  Basic Spa Techniques  3-0-3
COREQUISITE: COS 118 Basic Spa Techniques Lab
This course is the study of cosmetic products, massage, skin care, and hair removal, as well as identifying the structure and function of various systems of the body. Topics include massage skin analysis, skin structure, disease and disorder, light therapy, facials, facial cosmetics, anatomy, hair removal, and nail care. Upon completion, the student will be able to state procedures for analysis, light therapy, facials, hair removal, and identify the structures, functions, disorders of the skin, and nail care.

COS 118  Basic Spa Techniques Lab  0-3-3
COREQUISITE: COS 117 Basic Spa Techniques
This course provides practical applications related to the care of the skin and related structure. Emphasis is placed on facial treatments, product application, skin analysis, massage techniques, facial make-up, hair removal, and nail care. Upon completion, the student should be able to prepare clients, assemble sanitized materials, follow procedures for product application, recognize skin disorders, demonstrate facial massage movement, cosmetic application, and hair removal using safety and sanitary precautions, and nail care.

COS 123  Cosmetology Salon Practices  0-3-3
This course is designed to allow students to practice all phases of cosmetology in a salon setting. Emphasis is placed on professionalism, receptionist duties, hair styling, hair shaping, chemical, and nail and skin services for clients. Upon completion, the student should be able to demonstrate professionalism and the procedures of cosmetology in a salon setting.

COS 125  Career and Personal Development  3-0-3
This course provides the study and practice of personal development and career building and retaining clientele, communication skills, customer service, continuing education, and goal setting. Upon completion, the student should be able to communicate effectively and practice methods for building and retaining clientele.

COS 143  Specialty Hair Preparation Techniques  1-2-3
This course focuses on the theory and practice of hair designing. Topics include creating styles using basic and advanced techniques of back combing, up sweeps and braiding. Upon completion, students should be able to demonstrate the techniques and procedures for hair designing.

COS 144  Hair Shaping and Design  1-2-3
In this course, students learn the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs.

COS 145  Hair Shaping Lab  0-3-3
This covers the study of the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs using safety and sanitary precautions.

COS 162  Special Topics in Cosmetology/Teaching Essentials  0-3-3
This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 163  Facial Treatments  1-2-3
This course includes all phases of facial treatments in the study of skin care. Topics include treatments for oily, dry, and special skin applications. Upon completion, students will be able to apply facial treatments according to skin type.

COS 164  Facial Machine  0-3-3
This is a course designed to provide practical experience using the vapor and facial machine with hydraulic chair. Topics include the uses of electricity and safety practices, machine and apparatus, use of the magnifying lamp, and light therapy. Upon completion the student will be able to demonstrate an understanding of electrical safety and skills in the use of facial machines.

COS 165  Related Subjects Estheticians  0-3-3
This course includes subjects related to the methods for removing unwanted hair. This course includes such topics as electrolysis information and definitions, safety methods of permanent hair removal, the practice of removal of superfluous hair, and the use of depilatories. Upon completion of this course, students will be able to apply depilatories and practice all safety precautions.

COS 166  Skin Care Bacteriology and Sanitation  3-0-3
This course introduces students to bacteriology and sanitation of skin care implements. Emphasis is placed on decontamination, infection control, and safety. At the end of this course students will be able to describe practices for sanitizing facial implements and proper use and disposal of non-reusable items.
COS 167 State Board Review 1-2-3
Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to complete successfully the required State Board of Cosmetology examination and entry-level employment.

COS 168 Bacteriology and Sanitation 1-2-3
In this skin care course, emphasis is placed on the decontamination, infection control and safety practiced in the esthetics facility. Topics covered include demonstration of sanitation, sterilization methods and bacterial prevention. Upon completion, the student will be able to properly sanitize facial implements and identify non-reusable items.

COS 169 Skin Functions 0-3-3
This course introduces skin functions and disorders. Topics include practical application for skin disorder treatments, dermabrasion, and skin refining. Upon completion of this course, the student will be able to demonstrate procedures for acne, facials and masks for deeper layers and wrinkles.

COS 181 Special Topics 3-0-3
This course is designed to allow students to explore issues relevant to the profession of cosmetology. Upon completion, students should have developed new skills in areas of specialization for the cosmetology profession.

COS 190 Internship in Cosmetology 0-3-3
This course is designed to provide exposure to cosmetology practices in non-employment situations. Emphasis is on dependability, attitude, professional judgment, and practical cosmetology skills. Upon completion, the student should have gained skills necessary for entry-level employment.

COS 291 Co-op 0-3-3
This course is designed to provide work experience with a college-approved employer in an area related to Cosmetology. The student works a minimum of 15 contact hours each week. Emphasis is placed on integrating classroom learning with related work experience. Registration with the AL Board of Cosmetology for a student work permit is required. Documentation on tasks and work evaluation are submitted to college instructor. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

Cosmetology Instructor Training (CIT)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

CIT 211 Teaching and Curriculum Development 3-0-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience).
This course focuses on principles of teaching, teaching maturity, personality conduct, and the development of cosmetology curriculum. Emphasis is placed on teacher roles, teaching styles, teacher challenges, aspects of curriculum development, and designing individual courses. Upon completion, students should be able to describe the role of teacher, identify means of motivating students, develop a course outline, and develop lesson plans.

CIT 212 Teacher Mentorship 0-3-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience). COREQUISITE: CIT 211
This course is designed to provide the practice through working with a cosmetology instructor in a mentoring relationship. Emphasis is placed on communication, student assessment, and assisting students in the lab. Upon completion, students should be able to communicate with students, develop a course of study, and apply appropriate teaching methods.

CIT 213 Lesson Plan Development 0-3-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience). COREQUISITE: CIT 212
The course introduces students to methods for developing lesson plans. Emphasis is placed on writing lesson plans and on the four-step teaching plan. Upon completion, students should be able to write daily lesson plans and demonstrate the four-step teaching method.

CIT 214 Lesson Plan Methods and Development 1-2-3
During this course students have the opportunity to further apply knowledge of lesson planning and lesson delivery by using lesson plans they have developed from previous courses or this course. Emphasis is placed on the use of lesson plans in various classroom and laboratory settings. Upon completion, students will be able to teach a variety of cosmetology classes using various techniques. This course serves as a suitable substitute for CIT 221. If used as a suitable substitute, this course becomes a core course.

CIT 221 Lesson Plan Implementation 0-3-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience).
This course is designed to provide practice in preparing and using lesson plans. Emphasis is placed on organizing, writing, and presenting lesson plans using the four-step teaching method. Upon completion, students should be able to prepare and present a lesson using the four step teaching method.

CIT 222 Instructional Materials and Methods 3-0-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience). COREQUISITE: CIT 223
This course focuses on visual and audio aids and materials. Emphasis is placed on the use and characteristics of instructional aids. Upon completion, students should be able to prepare teaching aids and determine their most effective use.

CIT 223 Instructional Materials and Methods Applications 0-3-3
PREREQUISITE: Licensed managing cosmetologist (1 year experience). COREQUISITE: CIT 222
This course is designed to provide practice in preparing and using visual and audio aids and materials. Emphasis is placed on the preparation and use of different categories of instructional aids. Upon completion, students should be able to prepare and effectively present different types of aids for use with a four-step lesson plan.

CIT 224 Special Topics in Cosmetology Instruction 3-0-3
This course is designed to allow students to further develop their knowledge and skills as cosmetology instructors. Topics will be assigned based on individual student professional needs.
COURSE DESCRIPTIONS

Criminal Justice (CRJ)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

CRJ 100 Introduction to Criminal Justice 3-0-3
This course surveys the entire criminal justice process from law enforcement to the administration of justice through corrections. It discusses the history and philosophy of the system and introduces various career opportunities.

CRJ 110 Introduction to Law Enforcement 3-0-3
This course examines the history and philosophy of law enforcement, as well as the organization and jurisdiction of local, state, and federal agencies. It includes the duties and functions of law enforcement officers.

CRJ 116 Police Patrol 3-0-3
This course studies the duties, and responsibilities of the uniformed police patrol. It emphasizes the importance of patrol functions and includes principles, methods, procedures and resources used in police patrol operations.

CRJ 140 Criminal Law and Procedure 3-0-3
This course examines both substantive and procedural law. The legal elements of various crimes are discussed, with attention to the Alabama Code. Areas of criminal procedure essential to the criminal justice professional are covered.

CRJ 146 Criminal Evidence 3-0-3
This course considers the origins of the law of evidence and current rules of evidence. Types of evidence, their definitions and uses are covered, as well as the functions of the court regarding evidence.

CRJ 147 Constitutional Law 3-0-3
This course involves constitutional law as it applies to criminal justice. It includes recent Supreme Court decisions affecting criminal justice professionals, such as right to counsel, search and seizure, due process and civil rights.

CRJ 150 Introduction to Corrections 3-0-3
This course provides an introduction to the philosophical and historical foundations of corrections in America. Incarceration and some of its alternatives are considered.

CRJ 208 Introduction to Criminology 3-0-3
This course delves into the nature and extent of crime in the United States, as well as criminal delinquent behavior and theories of causation. The study includes criminal personalities, principles of prevention, control, and treatment.

CRJ 209 Juvenile Delinquency 3-0-3
This course examines the causes of delinquency. It also reviews programs of prevention, and control of juvenile delinquency as well as the role of the courts.

CRJ 216 Police Organization and Administration 3-0-3
This course examines the principles of organization and administration of law enforcement agencies. Theories of management, budgeting, and various personnel issues are covered.

CRJ 220 Criminal Investigation 3-0-3
This course explores the theory and scope of criminal investigation. The duties and responsibilities of the investigator are included. The techniques and strategies used in investigation are emphasized.

CRJ 280 Internship in Criminal Justice 1/3-0-1/3
PREREQUISITE: Permission of the instructor.
This course involves practical experience with a criminal justice agency under faculty supervision. Permission of the instructor is required. This course may be repeated with the approval of the department head.

CRJ 290 Selected Topics - Seminar in Criminal Justice 1/3-0-1/3
This course involves reading, research, writing, and discussion of selected subjects relating to criminal justice. Various contemporary problems in criminal justice are analyzed. This course may be repeated with approval from the department head.

Design Engineering Technology (D&D)

Availability of courses in this program is dependent upon student enrollment. See advisor for further information.

DDT 104 Basic Computer Aided Drafting and Design 1-2-3
This course provides an introduction to basic Computer-Aided Drafting and Design (CADD) functions and techniques, using "hands-on" applications. Topics include terminology, hardware, basic CADD and operating system functions, file manipulation, and basic CADD software applications in producing softcopy and hardcopy.

DDT 111 Fundamentals of Drafting and Design Technology 1-2-3
This course serves as an introduction to the field of drafting and design and provides a foundation for the entire curriculum. Topics include safety, lettering, tools and equipment, geometric constructions, and orthographic sketching, and drawing.

DDT 114 Industrial Blueprint Drawing 3-0-3
This course provides students with basic blueprint reading for various industrial applications. Topics include orthographic projection, dimensions and tolerances, symbols, industrial applications, scales and notes. This course may be tailored to meet a specific industry need.

DDT 115 Blueprint Reading for Machinists 3-0-3
This course provides the students with terms and definitions, theory of orthographic projection, and other information required to interpret drawings used in the machine trades. Topics include multiview projection, pictorial drawings, dimensions and notes, lines and symbols, and sketching. Upon completion, students should be able to interpret blueprint drawings used in the machine trades.

DDT 116 Blueprint Reading for Construction 3-0-3
This course provides the students with terms and definitions, theory of orthographic projection, and other information required to interpret drawings used in the construction trades. Topics include multiview projection, dimensions and notes, lines and symbols, sketching, foundations plans, site plans, floor plans, elevations, sections, details, schedules, electrical plans and specifications. Upon completion, students should be able to interpret blueprint drawings used in the construction trades.

DDT 117 Manufacturing Processes 3-0-3
This course in materials and processes includes the principles and methodology of material selection, application, and manufacturing processes. Emphasis is directed to solids to include material characteristics, castings, forging, and...
die assemblies. Upon completion, students should be able to discuss and understand the significance of materials’ properties, structure, basic manufacturing processes, and express and interpret material specifications.

**DDT 118 Basic Electrical Drafting** 1-2-3
This course covers the universal language of electrical drafting, including electrical lines, symbols, abbreviations, and notation. Emphasis is placed on typical components such as generators, controls, transmission networks, and lighting, heating, and cooling devices. Upon completion, students should be able to draw basic diagrams of electrical and electronic circuits using universally accepted lines and symbols.

**DDT 124 Intro to Technical Drawing** 1-2-3
This course covers sections, auxiliary views, and basic space geometry. Emphasis will be placed on the theory as well as the mechanics of applying sections, basic dimensioning, auxiliary views, and basic space geometry.

**DDT 125 Surface Development** 1-2-3
This course covers surface intersections and developments. Emphasis is placed on the basic types of intersections using simple geometric forms. Upon completion, students should be able to draw common types of surface intersection and handle them simply as applications of the concepts learned in this class.

**DDT 127 Intermediate Computer Aided Drafting and Design** 1-2-3
PREREQUISITE: DDT 104, DDT 111, DDT 124 or permission of instructor.
This course covers intermediate-level concepts and applications of CADD. Emphasis will be placed on intermediate-level features, commands, and applications of CADD software.

**DDT 128 Intermediate Technical Drawing** 1-2-3
PREREQUISITE: DDT 111, DDT 124 or instructor approval.
This course is designed to develop a strong foundation in common drafting and design practices and procedures. Topics include dimensioning concepts and pictorial drawings.

**DDT 130 Fundamentals of Drafting for Related Trades** 3-0-3
This course provides an overview of related technical trades drafting. Theory is covered within a broad range of drafting specialties including civil, structural, electrical, mechanical, and electronic drawing. Emphasis is placed on a basic understanding of what each of these fields require for graphic communication.

**DDT 131 Machine Drafting Basics** 1-2-3
This course in machine drafting and design provides instruction in the largest specialty area of drafting in the United States, in terms of scope and job opportunities. Emphasis will be placed on the applications of multi-view drawings, including drawing organization and content, title blocks and parts lists, assembly drawings, detail drawings, dimensioning and application of engineering controls in producing industrial-type working drawings. Upon completion, students should be able to organize, layout, and produce industrial-type working drawings, including the application of title blocks, parts lists, assemblies, details, dimensions, and engineering controls.

**DDT 132 Architectural Drafting** 1-2-3
This course in architectural design and drafting introduces basic terminology, concepts and principles of architectural design and drawing. Topics include design considerations, lettering, terminology; site plans, and construction drawings. Upon completion, students should be able to draw, dimension, and specify basic residential architectural construction drawings.

**DDT 133 Basic Surveying** 1-2-3
This course covers the use of surveying instruments, mathematical calculations and the theory of land surveying. Topics include USGS benchmarks, measuring horizontal and vertical angles and distances, terms, and recording and interpreting field notes. Upon completion, students should be able to recognize benchmarks and measure, specify, and record field notes.

**DDT 134 Descriptive Geometry** 1-2-3
This course is designed to teach the fundamental concepts of descriptive geometry through an emphasis on logical reasoning, visualization, and practical applications. Topics include orthographic projection, points and lines in space, auxiliary views, plane representation, intersecting and non-intersecting lines, piercing and intersecting planes, plane development, and calculations. Upon completion, students should be able to project and intersect points, lines, and planes, with their relationships in space, as well as develop surfaces of an object for fabrication purposes.

**DDT 139 Fundamentals of Drafting for Related Trades Lab** 0-3-3
This course is a direct applications lab to the topics covered within DDT 130. Emphasis is placed on drawing accuracy utilizing each of the fields listed with DDT 130.

**DDT 150 Theory of Residential Drawing and Design** 3-0-3
This course provides the theory of residential drawing and design. Topics include architectural styles, house design, site and space planning, environment, drawing requirements, construction materials and process, terminology, and specific types of drawings required to complete a full set of construction documents. Introductory, intermediate, and advanced topics are covered. Emphasis is placed on understanding of the various issues and requirements essential to the field of residential drawing and design.

**DDT 155 Drawing for Residential Construction** 0-4-4
This course is a direct applications lab to the topics covered within DDT 150. Emphasis is placed upon the production of quality construction documents.

**DDT 181 Special Topics in Drafting and Design Technology** 1-2-3
These courses provide specialized instruction in various areas related to the drafting industry. Emphasis is placed on meeting students’ needs.

**DDT 181E Special Topics - Work Ethics** 3-0-3
This course provides instruction in work ethics related to Design Engineering Technology.

**DDT 182 Special Topics in Drafting and Design Technology** 1-2-3
This course provides students with opportunities to apply drafting and design concepts.

**DDT 191 Drafting Internship** 0-1-1
This course is designed for those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 5 hours per week in
an activity planned and coordinated jointly by the instructor and the employer. Upon completion, students should have gained valuable work experience in a well-planned, coordinated training/work situation.

DDT 192 Drafting Internship 0-2-2
This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 10 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, students should have gained valuable work experience in a well-planned, coordinated training/work situation.

DDT 193 Drafting Internship 0-3-3
This course is limited to those who are involved in a structured employment situation that is directly related to the field of drafting and design and is coordinated with the drafting instructor. The student must spend at least 15 hours per week in an activity planned and coordinated jointly by the instructor and the employer. Upon completion, students should have gained valuable work experience in a well-planned, coordinated training/work situation.

DDT 211 Intermediate Machine Drafting 1-2-3
This second course in machine drafting and design provides more advanced instruction in the largest specialty area of drafting. Topics include applications of previously developed skills in the organization and development of more complex working drawings, use of vendor catalogs and the Machinery's Handbook for developing specifications, and use of standardized abbreviations in working drawings.

DDT 212 Intermediate Architectural Drafting 1-2-3
This second course in architectural design and drafting continues with more advanced and detailed architectural plans. Topics include floor construction and detailing, foundation, wall, and roof construction and detailing; use of standards manuals; perspective drawings; electrical plans; plumbing plans; and building materials, with emphasis on residential and some light commercial applications. Upon completion, students should be able to draw and specify advanced-level plans including various architectural details.

DDT 213 Civil Drafting, Plat Maps 1-2-3
This course introduces the drafting practices, symbols, conventions, and standards utilized in civil engineering contract documents. Topics include site planning, land surveying, topographic surveys, along with civil terminology. Upon completion, students should be able to draw accurate plat maps giving legal descriptions of land parcels, draw simple site plans, and identify and use proper symbols and conventions on civil engineering drawings.

DDT 214 Pipe Drafting 1-2-3
This course covers the theory and practical application needed to understand piping fundamentals as used in refineries and petrochemical plants. Topics include process and mechanical flow diagrams, plant equipment, isometric drawings, instrumentation symbols, pipe symbols, flanges, fittings, and applications of basic math and trigonometry. Upon completion, students should be able to demonstrate pipe drafting techniques and fundamentals in order to prepare working drawings used in refineries and the petrochemical industrial environment.

DDT 215 Geometric Dimensioning and Tolerancing 1-2-3
This course is designed to teach fundamental concepts of size description by geometric methods including appropriate engineering controls. Emphasis is placed on the drawing and application of common geometric dimensioning and tolerancing symbols to engineering drawings as designated by the latest ANSI/ASME Standards. Upon completion, students should be able to use geometric dimensioning and tolerancing symbols in applying size information and manufacturing controls to working drawings.

DDT 216 Design of Structural Wood Members 3-0-3
This course provides structural theory and rule-of-thumb design for structural wood members. Joists, beams, girders, rafters, posts, and columns are designed as related to residential and light commercial needs. Bending moment, shear, and slenderness ratios are discussed as well as code requirements and rule-of-thumb. Emphasis is placed upon competency.

DDT 217 Building Codes, Ordinances, Zoning Restrictions and the A.D.A. 3-0-3
PREREQUISITE: Permission of the instructor. This course provides an in-depth study of building codes, municipal ordinances, zoning restrictions, and compliance with the Americans With Disability Act as related to commercial drafting and design. Emphasis is placed upon a working understanding of these topics.

DDT 220 Advanced Technical Drawing 1-2-3
This course covers the methods of providing size description and manufacturing information for production drawings. Emphasis will be placed on accepted dimensioning and tolerancing practices including Geometric Dimensioning and Tolerancing for both the Customary English system and the ISO System. Upon completion, students should be able to apply dimensions, tolerances, and notes to drawings to acceptable standards, including Geometric Dimensioning and Tolerancing, and produce drawings using and specifying common standards and various fasteners, including welding methods.

DDT 222 Advanced Architectural Drafting 1-2-3
This third course in architectural design and drafting continues with advanced architectural plans, including a slant toward light commercial construction. Topics include climate control plans, application of building codes, building materials and finish specifications, cost estimating, and bid specifications. Upon completion, students should be able to apply current techniques in producing advanced-level architectural plans, including residential and light commercial applications.

DDT 224 Structural Concrete Drafting 1-2-3
This course is designed to develop the knowledge and skills necessary to understand the basic components and terminology of pre-cast and poured-in-place concrete structures. Emphasis is placed on pre-cast concrete framing plans, sections, fabrication and connection details, poured-in-place concrete foundations, floor systems, and bills of material. Upon completion, students should be able to construction engineering and shop drawings of concrete beams, column, floor, roof, and wall framing plans using the A.I.S.C. Manual and incorporating safety practices.
DDT 225 Structural Steel Drafting 1-2-3
This course covers the theory and practical applications necessary to understand the basic design and terminology of structural steel components used in light commercial buildings. Emphasis is placed on structural steel drafting techniques, bolted and welded connections, framing plans, sections, fabrication and connection details, and bills of material. Upon completion, students should be able to produce engineering and shop drawings incorporating standard shapes, sizes, and details using the A.I.S.C. Manual and incorporating safety practices.

DDT 226 Technical Illustration 1-2-3
This course provides the student with various methods of illustrating structures and machine parts. Topics include axonometric drawings; exploded assembly drawings; one point, two point, and three point perspectives, surface textures, and renderings. Upon completion, students should be able to produce drawings and illustrations using the previously described methods.

DDT 227 Strength of Materials 4-0-4
This course in statics and strength of materials includes the study of forces and how they act and react on bodies and structures. Topics include the effects of forces as found in structures and machines under conditions of equilibrium, how materials resist forces, strengths of common construction materials and structural components. Force systems such as parallel, concurrent, and non-current are studied in coplanar and non-coplanar situations are included. Upon completion, student should understand and be able to apply the principles of force in engineering drawings.

DDT 228 Geographic Information Systems 1-2-3
This course is designed as an introduction to the world of G.I.S. and what it’s about and builds on the skills attained in Civil Drafting I and II. Emphasis will be placed on utilizing G.I.S. software in conjunction with a CAD program to produce “intelligent” maps tied to a database in solving complex projects and problems. Upon completion, students should be able to manipulate attributed objects drawn on CAD/GIS software and accurately produce basic G.I.S. drawings.

DDT 231 Advanced CAD 1-2-3
This course covers the advanced applications of CAD software to engineering projects in various applications, including architectural, civil, mechanical, and environmental engineering, with consideration for advanced physical and psychological principle of CAD. These principles will be applied toward CAD customization and programming principles, for the expressed purpose of increasing productivity and improving the performance of the CAD operator, thereby, making CAD much more productive in an engineering environment. Emphasis will be placed on using intelligent CAD techniques to increase the quality of output. And, 3D modeling and rendering will be introduced. Upon completion, students should be able to apply advanced CAD techniques in solving complex problems related to all engineering applications.

DDT 232 CAD Customization 1-2-3
This course introduces the various methods of customizing CAD software to meet individual or company needs. Topics include menu customizing, programming, custom command macros, script files, slides, and slide libraries. Upon completion, students should be able to customize and write menus, write programming routines, and write script files for the purpose of increasing the proficiency of the CAD operator.

DDT 233 Solids Modeling 1-2-3
This course provides instruction in 3D Design Modeling utilizing the 3D capabilities of CAD software. Emphasis is placed on 3D wire-frame, surface and solids modeling along with the development of 2D detail drawings from 3D models.

DDT 234 3D Graphics and Animation 1-2-3
This course is design to challenge the imagination of the student in a 3-dimensional problem solving environment. The student will be given a basic introduction to the concepts of 3D design and animation then apply those concepts to a design project. Upon completion, students should be able to create and animate objects in a 3-dimensional environment.

DDT 235 Specialized CAD 1-2-3
This course allows the student to plan, execute, and present results of individual projects in Specialized CAD topics. Emphasis is placed on enhancing skill attainment in Specialized CAD skill sets. The student will be able to demonstrate and apply competencies identified by the instructor.

DDT 236 Design Project 1-2-3
This course is designed for advanced students who aspire to more advanced and specialized skills in one certain drafting area. Emphasis will be place on the student’s ability to apply the principles learned in previous drafting classes in one special area, as approved by the instructor. The required project must be agreed upon by the instructor and the student, as well as how the work is to be accomplished. Upon completion, students should further reinforce previously learned concepts by applying engineering principles and controls to a personal design project.

DDT 237 Current Topics in CAD 1-2-3
This course serves to introduce changing technology and current CAD subjects and software and the computing hardware needed to utilize new products. Topics include currents trends in how industries use CAD applications, new developments, improvements and progressions within specific CAD applications as well as the necessary hardware. Upon completion, students should be able to use more updated software in a specific CAD application and be more aware of improvements in CAD software and how to apply advancing technology in improving their CAD proficiency.

DDT 238 Special Topics in CAD 1-2-3
This course in special CAD and multimedia topics covers special capabilities possible with CAD software, especially in conjunction with other graphical software, such as virtual "walk-throughs" or multimedia presentations. Topics include but are not limited to combining CAD software, image editing software, authoring software, and 3D software into one harmonious relationship to produce multimedia presentations. Upon completion, students should be aware of and understand how to utilize several software packages to produce multimedia presentations.

DDT 239 Independent Studies 0-3-3
This course provides practical application of prior attained skills and experiences as selected by the instructor for the individual student. Emphasis is placed on applying knowledge from prior courses toward the solution of individual drafting and design problems. Upon completion, students will demonstrate the application of previously attained skills and knowledge in the solution of typical drafting applications and problems.
DDT 250 Theory of Commercial Drawing and Design 2-1-3
This course provides the theory of commercial drawing and design. Topics include legal issues, job expectations, the architect and the architectural office, the contractor and the office of the contractor, building officials, construction materials and process, fire resistance design, C.S.I. format, and contract documents. Emphasis is placed upon a thorough understanding of these topics.

DDT 255 Drawing for Commercial Construction 0-4-4
This course is a direct applications lab to the topics covered within DDT 250. Emphasis is placed upon the production of quality construction document.

DDT 290 Survey of Aerospace Technology 3-0-3
This course provides a survey of Aerospace technology including the history of spaceflight, propulsion, orbital mechanics, and the space environment. A discussion of unmanned spacecraft and the manned space program is also included, as well as debate about the future, with solid facts and some speculation about humankind’s ventures in the final frontier.

DDT 291 CO-OP 0-3-3
PREREQUISITE: Instructor approval required.
These courses constitute a series wherein the student works on a part-time basis in a job directly related to drafting. In these courses the employer evaluates the student’s productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

Diagnostic Medical Sonography Associate in Applied Science Degree

DMS 202 Foundations of Sonography 2-1-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective
This course provides the student with concepts of the history and development of sonography in medical imaging, patient care, medical ethics and law, cultural diversity, and medical terminology used in the practice of sonography. Emphasis in theory and lab is placed on patient assessment and considerations of physical and psychological conditions in both routine and emergency situations. Upon completion, students will demonstrate an understanding of concepts, as well as demonstrate/explain patient care procedures appropriate to setting and situation while utilizing medical terminology. This is a CORE course.

DMS 204 Sectional Anatomy 2-0-2
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective
This course is a study in gross and sectional anatomy and physiology of the human body and the correlation of that anatomy to sonographic, computed tomography and magnetic resonance images. Upon completion students will be able to identify normal sectional anatomy.

DMS 205 Abdominal Sonography 3-1-4
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective
This course will provide instruction in a classroom and laboratory setting in order to perform sonographic studies of the abdomen. Classroom components will focus on concepts of normal and relational anatomy, physiology, Doppler principles, sonographic technique and appearance. At course completion the student will be expected to perform a complete abdominal sonogram. This is a CORE course.

DMS 206 Gynecologic Sonography 3-1-4
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205
This course will familiarize the student with the transabdominal and transvaginal protocols of gynecologic scanning and common pathologies of the female reproductive system as seen on ultrasound. Lab values and patient history will be stressed as well as correlation with images from other modalities. The student will be able to perform a transabdominal pelvic sonogram at course completion. This is a CORE course.

DMS 207 Abdominal Pathology 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205
This course will provide the student with a working knowledge of the sonographic appearance and pathophysiology of common diseases abnormalities of the abdomen. Associated history, symptoms, lab values, treatments and appearance on other imaging modalities will be demonstrated. The student will be required to conduct research for presentation. At course completion, students will be able to identify many major pathologies of the abdomen on sonograms. This is a CORE course.

DMS 216 Sonographic Principles & Instrumentation I 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective
This course will provide the student with knowledge of the principles of sound and imaging instrumentation as applied to sonography. The physical nature of sound waves and how those waves interact with mediums and how they can be successfully utilized in diagnostic imaging will be studied. Upon completion the student will be able to produce sonographic images. This is a CORE course.

DMS 217 Sonographic Principles & Instrumentation II 1-1-2
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205
This lab allows students to perform quality assurance tests and surveys. Students will also investigate statistical applications utilized in medical research. Upon completion the student will be able to develop a quality assurance program.
DMS 220 Obstetrical Sonography I 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205
This course will provide instruction regarding the development and sonographic appearance of the fetal and extra-fetal anatomy throughout the gestation period. Assessment, lab values, and performance for determining gestational age and fetal viability will be studied. At completion, the student will be required to differentiate between normal and abnormal obstetrical studies. This is a CORE course.

DMS 221 Obstetrical Sonography II 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230
This course will provide instruction regarding the sonographic appearance of fetal and extra-fetal anatomy and correlate findings of fetal anomalies and genetic links. Assessment, lab values, and performance for determining gestational age and fetal viability will be studied. At completion, the student will be required to differentiate between normal and abnormal obstetrical studies. This is a CORE course.

DMS 225 Superficial Sonography 1-0-1
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230
This course will review the anatomy and familiarize students with scanning protocols for the thyroid, parathyroid, breast, scrotum, male pelvis and other superficial structures. Common pathologies will be discussed and correlated with other imaging modalities. Upon completion, students will identify protocols appropriate to specific techniques and will perform superficial sonograms. This is a CORE course.

DMS 229 Sonography Preceptorship I 0-2-2
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective
This course provides the sonography student with the opportunity to practice patient care skills and use beginning sonographic skills in a clinical environment. At course completion, the student should be able to provide basic patient care needs for the individual scheduled for a sonogram and create sonographic images pertinent to the current level of didactic training in general sonography specialties. Competencies will be required. This is a CORE course.

DMS 230 Sonography Preceptorship II 0-3-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205
This course provides the student with the opportunity to develop additional sonographic skills in the clinical setting. The student will assist with and perform sonographic exams pertinent to the level of didactic training in general sonography specialties. Competencies will be required. This is a CORE course.

DMS 231 Sonography Preceptorship III 0-4-4
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230
This course provides a continuum in the development of sonographic skills while in the clinical setting. Students should be able to perform more exams with less assistance from the supervising sonographer. Competencies will be required. This is a CORE course.

DMS 232 Sonography Preceptorship IV 0-5-5
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230, DMS 221, DMS 225, DMS 231, DMS 240
This course will provide an in-depth practice of all sonographic skills in the clinical setting. Upon completion the student will perform general and/or specialty sonograms with little to no assistance from the supervising sonographer. Competencies will be required. This is a CORE course.

DMS 240 Sonography Principles & Instrumentation Seminar 2-0-2
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230
This course provides a review for SONOGRAPHY PRINCIPLES AND INSTRUMENTATION Exam. Topics include sonographic principles and instrumentation. Mock registries must be passed with a grade of 75% or better to complete this course.

DMS 241 Abdominal and OB/GYN Sonography Seminar 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230, DMS 221, DMS 225, DMS 231, DMS 240
This course provides a review for the National Registry Exam. Topics include abdominal, superficial, gynecological, and obstetrical sonography. Mock registries must be passed with a grade of 75% or better to complete this course. This is a CORE course.

DMS 245 Sonography Case Presentation 1-0-1
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230, DMS 221, DMS 225, DMS 231, DMS 240
Students are required to present cases with sonographic images, reports, patient history and symptoms and correlating reports from other exams/tests performed. The cases become the property of the program for use as future reference material. By the end of the term, students will have developed proficiency and expertise in case presentation.

DMS 250 Introduction to Advanced Sonography 3-0-3
PREREQUISITE: Admission to the program. BIO 201, ENG 101, MTH 100 or higher, PSY 200 or PSY 210, Humanities Elective, DMS 216, DMS 229, DMS 202, DMS 204, DMS 205, DMS 206, DMS 207, DMS 217, DMS 220, DMS 230, DMS 221, DMS 225, DMS 231, DMS 240
This course will introduce students to any of the following: pediatric, vascular, cardiac, neurology, interventional, and orthopedic sonography. Advanced technologies in these fields will be researched. At completion, students will identify and describe skills and modalities in sonography.
Economics (ECO)

ECO 231 Principles of Macroeconomics 3-0-3
This course is an introduction to macroeconomic theory, analysis, and policy applications. Topics include the following: scarcity, demand and supply, national income analysis, major economic theories concerning monetary and fiscal policies as stabilization measures, the banking system, and other economic issues or problems including international trade.

ECO 232 Principles of Microeconomics 3-0-3
This course is an introduction of the microeconomic theory, analysis, and applications. Topics include scarcity; the theories of consumer behavior, production and cost, markets, output and resource pricing, and international aspects of microeconomics.

Electrical Technology (ELT)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

ELT 108 DC Fundamentals 1-2-3
This course is designed to provide students with a working knowledge of basic direct current (DC) electrical principles. Topics include safety, basic atomic structure and theory, magnetism, conductors, insulators, use of Ohm’s law to solve for voltage, current, and resistance, electrical sources, power, inductors, and capacitors. Students will perform lockout/tagout procedures, troubleshoot circuits and analyze series, parallel, and combination DC circuits using the electrical laws and basic testing equipment to determine unknown electrical quantities.

ELT 109 AC Fundamentals 1-2-3
This course is designed to provide students with a working knowledge of basic alternating current (AC) electrical principles. Topics include basic concepts of electricity, electrical components, basic circuits, measurement instruments, the laws of alternating current, and electrical safety with lockout procedures. Hands on laboratory exercises are provided to analyze various series, parallel, and combination alternating current circuit configurations containing resistors, inductors, and capacitors. Upon course completion, students will be able to describe and explain alternating current circuit fundamentals such as RLC circuits, impedance, phase relationships, and power factors. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems.

ELT 110 Wiring Methods 1-2-3
This course is a study of various tasks, wiring methods, materials, and associated NEC requirements that students will be required to work with in residential and commercial wiring courses.

ELT 114 Residential Wiring Methods 2-1-3
This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations.

ELT 115 Residential Wiring Methods II 2-1-3
This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations.

ELT 117 AC/DC Machines 1-2-3
This course covers the theory and operation of DC motors, single and three phase AC motors, and the labs will reinforce this knowledge. Emphasis is placed on the various types of single and three phase motors, wiring diagrams, starting devices, and practical application in the lab.

ELT 131 Commercial/Industrial Wiring I 2-1-3
This course teaches students the principles and applications of commercial and industrial wiring methods. Emphasis is placed on blueprint symbols, calculations and NEC code requirements as it applies to commercial and industrial wiring. Upon completion, students will be able to read electrical plans, know most electrical symbols, load calculations for commercial industrial applications, and interpret the NEC code requirements.

ELT 181 Special Topics in ELT Technology 3-0-3
These courses provide specialized instruction in various areas related to electrical technology. Emphasis is placed on meeting students’ needs.

ELT 209 Motor Controls I 1-2-3
This course covers the use of motor control symbols, magnetic motor starters, running overload protection, push-button stations, sizing of magnetic motor starters and overload protection, and complex ladder diagrams of motor control circuits. Topics include sizing magnetic starters and overload protection, the use of push-button stations, ladder diagrams and magnetic motor starters in control of electric motors, wye-delta starting, part start winding, resistor starting and electric starting devices. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using push-button stations and understand complex motor control diagrams.

ELT 212 Motor Controls II 2-1-3
This course covers complex ladder diagrams of motor control circuits and the uses of different motor starting techniques. Topics include wye-delta starting, part start winding, resistor starting and electronic starting devices. Upon completion, the students should be able to understand and interpret the more complex motor control diagrams and understand the different starting techniques of electrical motors.

ELT 231 Programmable Controls I 2-1-3
This state-of-the-art course includes the fundamental principals of programmable logic controls (PLCs) including hardware and programming. Emphasis is placed on but not limited to the following: hardwiring associated with the PLC, different options available with most PLCs and basic ladder logic programming. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.

ELT 232 Programmable Controls II 2-1-3
This state-of-the-art course includes the principles of PLCs including hardware, programming and program design. Emphasis is placed on, but not limited to the following: developing working programs, timers, counters, different special functions, and designing programs from existing hardwired systems. Upon completion, students must demonstrate their ability by developing programs, loading programs into real world PLCs and troubleshooting the system if necessary.
ELT 241 National Electric Code 3-0-3
This course introduces the students to the National Electric Code and text and teaches the student how to find needed information within this manual. Emphasis is placed on locating and interpreting needed information within the NEC code manual. Upon completion, students should be able to locate, with the NEC code requirements for a specific electrical installation.

ELT 242 Journeyman Master Prep Exam 3-0-3
This course is designed to help prepare a student to take either the Journeyman or Master Certification Exam. Emphasis is placed on review of electrical concepts and/or principles, practice tests, and test taking procedures. Upon completion, students should be able to pass the Journeyman/Masters Certifying Exam.

ELT 244 Conduit Bending and Installation 2-1-3
This course provides students the knowledge to properly bend electrical metallic tubing, rigid galvanized and intermediate metal conduit, and PVC conduit. Emphasis is placed on the theory and practical application of conduit bending methods. Upon completion, students should be able to get measurements, layout, and successfully bend conduit using hand type, mechanical, and hydraulic benders.

ELT 291 CO-OP PREREQUISITE: Instructor approval required.
0-3-3
These courses constitute a series wherein the student works on a part-time basis in a job directly related to electrical technology. In these courses the employer evaluates the student’s productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

Emergency Medical Services (EMS) (EMP)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

EMS 100 Cardiopulmonary Resuscitation I 1-0-1
This course provides students with concepts as related to areas of basic life support to include coronary artery disease, prudent heart living, symptoms of heart attack, adult one-and-two rescuer CPR, first aid for choking, pediatric basic life support, airway adjuncts, EMS system entry access, automated external defibrillation (AED), and special situations for CPR. Upon course completion, students should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for each condition. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 101 Cardiopulmonary Resuscitation II 1-0-1
This course provides students with a review of concepts learned in EMS-100. In addition, the course provides the student with theory and application of airway adjuncts as utilized with airway obstruction and maintenance as well as respiratory and cardiac arrest. Assessment and management of acute ischemic stroke will also be included. Upon course completion, students should be able to identify situations requiring action related to heart or breathing conditions and effectively implement appropriate management for these conditions. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 103 First Aid/CPR 1-0-1
This course provides a study of basic first aid and cardiopulmonary resuscitation (CPR). Students will be able to perform basic first aid and CPR techniques. Upon completion, the student will be eligible for CPR certification testing.

EMS 104 First Aid for Students of Health Related Professions 1-0-1
This course is designed for students who plan to enter a health related profession and provides educational concepts related to first aid for various health disciplines. The course includes instruction in the emergency administration of oxygen, use of airway adjuncts, medication administration techniques, equipment for mechanical breathing, suctioning techniques, and automated external defibrillation (AED). Upon course completion, students should have the ability to recognize emergency situations requiring immediate action and appropriately manage these situations.

EMS 105 First Responder 3-0-3
This course provides theory in emergency procedures as contained in the current National Standard Training Curriculum (NSTC) for the First Responder. The course is an introduction to the emergency medical services system and provides fundamentals for students to improve the quality of emergency care provided as the first person to an emergency scene until emergency medical services arrive. Completion of specific student competencies, as outlined in the current NSTC for the First Responder, is required for successful course completion.

EMS 106 Medical Terminology for Health Professions 2-0-2
This course provides students with a survey of words, terms, and descriptions commonly used in health related professions. The course includes spelling, pronunciation, and meaning of prefixes, suffixes, roots, and terms. Students may have the opportunity to utilize computer assisted instruction for learning various medical terms. Upon course completion, students should have the knowledge to associate a variety of medical terms with their meaning and utilize medical terms to effectively communicate with other health professionals.

EMS 107 Emergency Vehicle Operator Ambulance 1-0-1
The Emergency Vehicle Operator Course - Ambulance provides the student with training as contained in the current National Standard Training Curriculum (NSTC) for the Emergency Vehicle Operator Course (EVOC) Ambulance. The course provides the knowledge and skill practice necessary for individuals to learn how to safely operate all types of ambulances. Topics include introduction to the NSTC for ambulance operators; legal aspects of ambulance operation; communication and reporting; roles and responsibilities; ambulance types and operation; ambulance inspection, maintenance, and repair; navigation and route planning; basic maneuvers and normal operating situations; operations in emergency mode and unusual situations, special considerations in safety; and the run. Completion of specific student competencies, utilizing NSTC guidelines, are required for successful completion of this course. NOTE: To qualify for licensure status as an ambulance driver in the State of Alabama, students must successfully complete this course and meet additional requirements as required by the Alabama Department of Public Health.
EMS 108 Directed Studies in EMS - I 1-0-1
This course offers independent study or computer assisted instruction under faculty supervision and/or theory in an EMS subject relevant to the student's interest and need. Specific cognitive competencies required by the student are defined in writing at the first class period.

EMS 113 Infection Control for Health Professions 1-0-1
This course is designed for students planning to enter a health related field of study or public service operations. The course focuses on the sources of communicable diseases and describes methods for prevention of transmission of bloodborne and airborne pathogens. Topics include prevention; universal precautions (body-substance isolation) and asepsis; immunization; exposure control; disposal; labeling; transmission; exposure determination; post-exposure reporting; and an exposure control plan. The course is taught following current guidelines set forth by the Occupational Safety and Health Administration (OSHA). Upon course completion, students should be able to participate in the clinical setting, identify potential sources of bloodborne and air borne pathogens, and use appropriate universal precautions.

EMS 118 Emergency Medical Technician 6-3-9
This course is required to apply for certification as an Emergency Medical Technician. This course provides students with insights into the theory and application of concepts related to the profession of emergency medical services. Specific topics include: EMS preparatory, airway maintenance, patient assessment, management of trauma patients, management of medical patients, treating infants and children, and various EMS operations. This course is based on the NHTSA National Emergency Medical Services Education Standards.

EMS 119 Emergency Medical Technician Clinical 0-1-1
This course is required to apply for certification as an EMT. This course provides students with clinical education experiences to enhance knowledge and skills learned in the EMS 118, Emergency Medical Technician Theory and Lab. This course helps students prepare for the National Registry Exam.

EMS 120 Vehicle Extrication 2-0-2
This course provides students with theory in the development of concepts related to the removal of persons from damaged vehicles. Topics include gaining access, stabilization, packaging, patient removal, and basic hazardous situations. Upon completion, students should be able to effectively extricate a person from a wrecked vehicle.

EMS 125 High Angle Rescue - I 2-0-2
This course provides students with theory in the introduction to high angle rescue techniques. Topics include the high angle environment; equipment and protection, care and use of rope and related equipment, knots, rappelling, and ascending techniques; and introduction to rescue techniques. Upon course completion, students should have an understanding in the basic techniques of high angle rescue.

EMS 126 High Angle Rescue - II 2-0-2
This course is a continuation and review of EMS 125 and provides students with theory in rescue techniques utilized in rope rescue. Topics include one person rescue techniques, slope evacuation, high angle lowering, hauling systems, high lines, and evacuation operations. Upon course completion, students should have an understanding of how to approach a high angle rescue, utilizing various rigging techniques.

EMS 150 24 Hour EMT Refresher 2-0-2
This course provides students with theory in review of the current National Standard Training Curriculum (NSTC) for the EMT-Basic. It also serves as a transition or bridge course when a new national curriculum is adopted. This course contains specific content areas as defined by the NSTC. Students are required to complete specific competencies, as outlined by the NSTC, for successful course completion.

EMS 155 Advanced Emergency Medical Technician 4-3-7
COREQUISITE: EMS 156
This course is required to apply for certification as an Advanced Emergency Medical Technician (AEMT). This course introduces the theory and application of concepts related to the profession of the AEMT. The primary focus of the AEMT is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Topics include: extending the knowledge of the EMT to a more complex breadth and depth, intravenous access and fluid therapy, medication administration, blind insertion airway devices, as well as the advanced assessment and management of various medical illnesses and traumatic injuries. This course is based on the NHTSA National Emergency Medical Services Education Standards. Requires licensure or eligibility for licensure at the EMT level and EMS 156 must be taken as a co-requisite.

EMS 156 Advanced Emergency Medical Technician Clinical 0-2-2
COREQUISITE: EMS 155
This course is required to apply for certification as an Advanced Emergency Medical Technician (AEMT). This course provides students with clinical education experiences to enhance knowledge and skills learned in EMS 155. This course helps prepare students for the National Registry AEMT Exam. The student will have the opportunity to use the basic and advanced skills of the AEMT in the clinical and field settings under the direct supervision of licensed healthcare professionals. Requires licensure or eligibility for licensure at the EMT level and EMS 155 must be taken as a co-requisite.

EMS 189 Applied Anatomy and Physiology for the Paramedic 4-0-4
*EMS 189 or BIO 201 is a prerequisite for the Paramedic course. This course introduces human anatomy and physiology and includes concepts related to basic chemistry; fluid, electrolyte, and acid-base balance; functions of cells, tissues, organs, and systems; pathophysiology; and associated medical terminology. Emphasis is placed on applying content to signs, symptoms, and treatments; and situations commonly seen by paramedics. Upon course completion, students should be able to demonstrate a basic understanding of the structure and function of the human body.

EMS 218 Supervised Studies in EMS - I 1-0-1
This course offers various topics of interest and need in emergency medical services. The course is conducted and completed under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.
EMS 219 Supervised Studies in EMS - II 1-0-1
This course offers various topics of interest and need in emergency medical services. The course is conducted under faculty supervision and includes required student cognitive competencies. Upon course completion, students should have a greater understanding of their assigned course topic.

EMS 234 Decision Making and Problem Solving in EMS 3-0-3
This course provides students with concepts relating to problem solving and decision making. Topics include decision making in the emergency and non-emergency setting, group dynamics and group think phenomenon. Upon course completion, students should be able to begin to use critical thinking skills to solve problems and make appropriate decisions.

EMS 240 Paramedic Operations 1-1-2
PREREQUISITE: EMS 189 or BIO 201.
This course focuses on the operational knowledge and skills needed for safe and effective patient care within the paramedic’s scope of practice. Content areas include: research, paramedic roles and responsibilities, well-being of the paramedic, illness and injury prevention, medical-legal-ethical issues, therapeutic communications, medical terminology, life span development, ambulance operations, medical incident command, rescue awareness and operations, hazardous materials incidents, crime scene awareness, and Alabama EMS laws and rules.

EMS 241 Paramedic Cardiology 2-1-3
This course introduces the cardiovascular system, cardiovascular electrophysiology, and electrocardiographic monitoring. This course further relates pathophysiology and assessment finding to the formulation of field impressions and implementation of treatment plans for specific cardiovascular conditions. Content areas include: cardiovascular anatomy and physiology, cardiovascular electrophysiology, electrocardiographic monitoring, rhythm analysis, and prehospital 12-lead electrocardiogram monitoring and interpretation, assessment of the cardiovascular patient, pathophysiologic of cardiovascular disease and techniques of management including appropriate pharmacologic agents and electrical therapy.

EMS 242 Paramedic Patient Assessment 2-1-3
This course provides the knowledge and skills needed to perform a comprehensive patient assessment, make initial management decisions, and to communicate assessment findings and patient care verbally and in writing. Content areas include: airway management, history taking, techniques of the physical examination, patient assessment, clinical decision making, communications, documentation and assessment based management.

EMS 243 Paramedic Pharmacology 0-1-1
This course introduces basic pharmacological agents and concepts with an emphasis on drug classifications and the knowledge and skills required of a paramedic for safe, effective medication administration. Content areas include: general principles of pharmacology and pharmacologic pathophysiology; venous and intraosseous access techniques, the metric and apothecary system; computation of dosage and solution problems, administration of pharmacologic agents; pharmacokinetics and pharmacodynamics, and nasogastric tube placement.

EMS 244 Paramedic Clinical I 0-1-1
This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of patient situations in the clinical setting, with a focus on patient assessment and management, advanced airway management, electro-therapy, I.V./I.O. initiation and medication administration.

EMS 245 Paramedic Medical Emergencies 2-1-3
This course relates pathophysiology and assessment finding to the formulation of field impressions and implementation treatment plans for specific medical conditions. Content areas include: pulmonology, neurology, gastroenterology, toxicology, hematology, environmental conditions, infectious and communicable diseases, abuse and assault, patients with special challenges, and acute interventions for the chronic care patient.

EMS 246 Paramedic Trauma Management 2-1-3
This course relates pathophysiology and assessment findings to the formulation of field impressions and implementation of treatment plans for trauma patients. Content areas include the pathophysiology, assessment, and management of trauma as related to: trauma systems; mechanisms of injury; hemorrhage and shock; soft tissue injuries; burns; and head, facial, spinal, thoracic, abdominal, and musculoskeletal trauma.

EMS 247 Paramedic Special Populations 1-1-2
This course relates pathophysiology and assessment finding to the formulation of field impressions and implementation of treatment plans for specific medical conditions. Content areas include: endocrinology, allergies and anaphylaxis, behavioral/psychiatric conditions, gynecology, obstetrics, neonatology, pediatrics, and geriatrics. In the clinical setting, theory and skills are applied to a variety of medical situations across the life span of the patient, with a focus on communication with and management of cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges.

EMS 248 Paramedic Clinical II 0-3-3
This course is directed toward the application of knowledge and skills developed in didactic and skills laboratory experiences to the clinical setting. Theory and skills are applied to a variety of medical and trauma situations across the life span of the patient, with a focus on communication with and management of trauma, cardiac, acute care, psychiatric/behavioral, obstetrical, newborn, pediatric, geriatric, and acute interventions for chronic care patients, and patients with special challenges.

EMS 250 EMS Advanced Studies - I 3-0-3
This course offers theory and computer assisted instruction under faculty supervision in a paramedic educational subject relevant to the student’s need. Specific cognitive objectives must be met by the student for successful course completion.

EMS 251 EMS Advanced Studies - II 3-0-3
This course offers theory and computer assisted instruction under faculty supervision in a paramedic educational subject relevant to the student’s need. Specific cognitive objectives must be met by the student for successful course completion.

EMS 252 EMS Advanced Studies - III 3-0-3
This course offers theory and computer assisted instruction under faculty supervision in a paramedic educational subject relevant to the student’s need. Specific cognitive objectives must be met by the student for successful course completion.
EMS 253 Paramedic Transition to the Workplace 1-1-2
This course is designed to meet additional state and local educational requirements for paramedic practice. Content may include: prehospital protocols, transfer medications, topics in critical care and transport, systems presentation, and/or national standard certification courses as dictated by local needs or state requirements.

EMS 254 Advanced Competencies for Paramedic 1-1-2
This course is designed to assist students in preparation for the paramedic licensure examination. Emphasis is placed on validation of knowledge and skills through didactic review, skills lab performance, and/or computer simulation and practice testing. Upon course completion, students should be sufficiently prepared to sit for the paramedic licensure examination.

EMS 255 Paramedic Field Preceptorship 0-5-5
This course provides field experiences in the prehospital setting with advanced life support EMS units. Under the direct supervision of a field preceptor, students synthesize cognitive knowledge and skills developed in the skills laboratory and hospital clinical to provide safe and effective patient care in the prehospital environment. Upon course completion, students should have refined and validated their patient care practices to provide safe and effective patient care over a broad spectrum of patient situations and complaints.

EMS 256 Paramedic Team Leadership 0-1-1
This course is designed to evaluate students’ ability to integrate didactic, psychomotor skills, clinical, and field internship instruction to serve as a competent entry-level paramedic. This final evaluative (rather than instructional) course focuses on students’ professional attributes and integrative competence in clinical decision-making and team leadership in the prehospital setting. Upon course completion, students should have demonstrated adequate knowledge and skills, professional attitudes and attributes, clinical decision-making and team leadership abilities to effectively function as a competent entry-level paramedic.

EMS 257 Paramedic Applied Pharmacology 1-1-2
This course introduces basic and advanced pharmacological agents and concepts, with an emphasis on drug classifications and the knowledge and skills required for safe, effective medication administration. Medication pharmacokinetics and pharmacodynamics will be evaluated for most medicines used in the pre-hospital setting. Students will also learn how to establish various routes of medication administration and procedures for administering medications via these routes. Students will also demonstrate mathemathic computations for various drug and solution dose administration problems.

EMS 266 Advanced CV Life Support Provider 1-0-1
The Advanced Cardiovascular Life Support Provider Course provides students with concepts related to advanced cardiovascular life support. Content areas include acute myocardial infarction, stroke, cardiovascular pharmacology, electrophysiology, various rhythm disturbances, and techniques of management of cardiovascular emergencies. The course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 267 Basic Trauma Life Support Provider 1-0-1
This course provides students with theory and demonstration in advanced trauma care and management. Content areas include mechanism of trauma, trauma assessment, airway-breathing-circulation management, trauma to various portions of the body, multiple system trauma, and load-and-go situations. The course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 269 Pediatric Medical Life Support 1-0-1
This course provides students with theory and simulated case studies in pediatric care. Content areas include recognition of pediatric pre-arrest conditions; shock; basic life support; oxygenation and airway control; newborn resuscitation; essentials in pediatric resuscitation; dysrhythmia recognition and management; vascular access; and use of medications. This course is taught in accordance with national standards and requires specific student competencies. Students successfully completing this course will receive appropriate documentation of course completion.

EMS 273 EKG Interpretation 2-0-2
This course is designed for students in health related professions desiring the knowledge to interpret singular lead electrocardiograms. The course provides concepts in the interpretation of electrocardiograms to include an overview of the electrical conduction of the heart as well as the identification of all categories of dysrhythmias. Upon course completion, students should be able to identify various types of cardiac rhythms.

English (ENG)

ENG 101 English Composition I 3-0-3
PREREQUISITES: A grade of “C” or better in ENR 098 or appropriate English placement score
English Composition I provides instruction and practice in the writing of at least four (4) extended compositions and the development of analytical and critical reading skills and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage. Must have a “C” or better to enroll in ENG 102.

ENG 098 Writing and Reading for College 4-0-4
This course integrates reading and writing skills students need to comprehend and interact with college-level texts and to produce original college-level writing. Reading skills will center on processes for literal and critical comprehension, as well as the development of vocabulary skills. Writing skills will focus on using an effective writing process including generating ideas, drafting, organizing, revising, and editing to produce competent essays using standard written English. This course may include one-hour lab component.

ENG 099 Introduction to College Writing 1-0-1
COREQUISITE: ENG 101 English Composition I
This course is a co-requisite English course paired with ENG 101. Emphasis is placed on providing students with additional academic and noncognitive support with the goal of success in the students’ paired ENG 101 class. The material covered or practiced in the ENG 099 course is complementary to and supportive of material taught in ENG 101 and the needs of the ENG 099 students. NOTE: Students who withdraw from ENG 099 must also withdraw from ENG 101.

ENR 098 Writing and Reading for College 4-0-4
This course integrates reading and writing skills students need to comprehend and interact with college-level texts and to produce original college-level writing. Reading skills will center on processes for literal and critical comprehension, as well as the development of vocabulary skills. Writing skills will focus on using an effective writing process including generating ideas, drafting, organizing, revising, and editing to produce competent essays using standard written English. This course may include one-hour lab component.
ENG 102 English Composition II  3-0-3
PREREQUISITE: A grade of "C" or better in ENG 101 or the equivalent.

This course provides instruction and practice in the writing of at least four (4) formal, analytical essays, at least one of which is a research project using outside sources and/or references effectively and legally. Additionally, English Composition II provides instruction in the development of analytical and critical reading skills in the composition process. English Composition II may include instruction and practice in library usage.

ENG 130 Technical Report Writing  3-0-3
This course provides instruction in the production of technical and/or scientific reports. Emphasis is placed on research, objectivity, organization, composition, documentation, and presentation of the report. Students will demonstrate the ability to produce a written technical or scientific report by following the prescribed process and format.

+ENG 251 American Literature I  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a survey of American literature from its inception to the middle of the nineteenth century. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

+ENG 252 American Literature II  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a survey of American literature from the middle of the nineteenth century to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

+ENG 261 English Literature I  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a survey of English literature from the Anglo-Saxon period to the Romantic Age. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

+ENG 262 English Literature II  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a survey of English literature from the Romantic Age to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 271 World Literature I  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a study of selected literary masterpieces from Antiquity to the Age of Reason. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 272 World Literature II  3-0-3
PREREQUISITE: ENG 102 or equivalent with a grade of "C" or better.

This course is a study of selected literary masterpieces from the Age of Reason to the present. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research.

ENG 299 Directed Studies in Language and Literature  1/3-0-1/3
PREREQUISITE: Permission of the instructor.

This course, which may be repeated for credit so long as the topics differ, provides the student the opportunity to study an English-language or literary topic chosen by the student in consultation with the instructor. Emphasis is placed on the student's investigating the topic and reporting the results of the investigation. The student will demonstrate knowledge of the topic through either a written or an oral presentation.

Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Environmental Technology (EVT)

Availability of courses in this program is dependent upon sufficient demand. See advisor for further information.

EVT 101 Introduction to Environmental Science and Technology  3-2-4
This course is a survey of modern environmental science. Topics include ecosystem processes, species strategies, social systems, community building, ecosystems stability, population ecology, individual adaptations, species diversity, and physical and chemical systems from geochemistry to soil science. Upon completion, students should be able to explain the interdependencies of the ecosystem of our planet.

EVT 105 Introduction to Occupational Safety and Health  3-0-3
This course provides an overview of the field of occupational safety and health technology. Topics include an overview of OSHA regulations, origins of occupational safety and health standards, safety and health process design, safety
and health technology, and managing safety processes. Upon completion, students should be able to demonstrate occupational safety and health knowledge.

**EVT 107 Environmental Health and Safety Assessments and Reporting** 3-0-3
This course focuses on procedures in conducting environmental audits, legal issues, typical auditing problems, audit protocol, managing and critiquing an audit program, and dealing with small businesses during audit program. Emphasis is on problem areas in the workplace setting where potential violations of federal, state, and local laws could cause severe damage to an industry or company. Upon completion, students should be able to conduct environmental site assessments.

**EVT 110 Introduction to Environmental Laws and Regulations** 3-0-3
This course provides an overview of current federal laws and regulations that relate to the environment. Topics include laws and regulations relating to air, land, and water, such as the Clean Air Act, Clean Water Act, RCRA, Toxic Substance Control Act, the Federal Pesticide Acts, OSHA, CERCLA, and SARA. Information on Alabama specific law regulation by the Alabama Department of Environmental Management (ADEM) and obtaining permits is also presented. Upon completion, students should be able to explain methods and strategies to ensure regulatory compliance.

**EVT 120 Introduction to HAZMAT and OSHA Regulations** 3-0-3
This course provides a historical overview of the occupational, consumer, and environmental health and safety issues. Topics include applicable OSHA regulation and compliance strategies. Upon completion, students should be able to develop methods and strategies to ensure regulatory compliance with transportation and emergency response regulations regarding hazardous materials.

**EVT 140 Hydrology** 2-2-3
This course is an introduction to hydrology cycles. Topics include rainfall and runoff analysis, water-shed studies, overland flow and flood routing, sediment transport, and hydrologic forecast. Upon completion, students should be able to evaluate the interaction of water with the surrounding environment.

**EVT 150 Hazmat Communication Training** 3-0-3
This course is designed to provide instruction in the development and implementation of a hazard communication program for employees, the community, and emergency response personnel. Emphasis will be placed on employee “right to know” requirements. Upon completion, students should understand how to develop hazard communications programs.

**EVT 160 Introduction to Air Pollution** 2-2-3
This course will provide an introduction of air pollution dealing with effects, sources, combustion processes, abatement, and control technology. Subjects covered include air monitoring, sampling and air dispersion models, nature of problems, and approaches for solution of these problems. Upon completion, students should understand the causes and effects of air pollution.

**EVT 201 Environmental Internship I** 0-3-3
This course will provide work experience designed to familiarize students with the application of environmental technology principles. Efforts will be made to place students in an area which supports their career goals. Upon completion, students should have gained experience as an environmental technician.

**EVT 202 Environmental Internship II** 0-15-3
This course is a continuation of EVT 201. It will provide work experience designed to familiarize students with the application of environmental technology principles. Efforts will be made to place students in an area which supports their career goals. Upon completion, students should have gained experience as an environmental technician.

**EVT 203 Environmental Permitting** 3-0-3
This course is designed to teach a student environmental permitting procedures. Topics include documentation and application procedures, government, regulatory, and licensing organization, structure and protocol, title search, environmental audits, and water well surveys. Upon completion, students should be able to process permits and prepare technical correspondence and reports.

**EVT 210 Environmental Sampling and Analysis** 3-1-4
This course is designed to introduce students to the theory and practical methodology of the analysis of significant inorganic substances in different environmental sample matrices. Topics include sample acquisition, preservation, preparation, analysis and documentation according to approved EPA methods and guidelines. Quality assurance and quality control requirements will be stressed. Field and laboratory exercises will be completed to determine the composition for several selected inorganic substances. Upon completion, students should be able to perform environmental sampling and analysis.

**EVT 220 Toxicology** 2-1-3
This course is designed to familiarize students with acute and chronic health effects due to exposures with hazardous materials. Topics covered in this course include review of human physiology and recognition of physiological effects of toxic agents, concepts of TLV and LD, use of medical technology, modes of contact and entry of toxic agents, dose time, and concentration effects, recognition of toxic agents, occupational diseases, and epidemiology. Upon completion, students will understand the effects of exposure to hazardous materials on the human body.

**EVT 229 Ecology** 3-2-4
Elementary concepts with focus on energetics, limiting factors, the process of adaptation to a changing environment, the niche, ecological pyramids and succession. The laboratory will consist of elementary concepts with focus on the niche, ecological pyramids and succession.

**EVT 230 Pollution Prevention** 3-0-3
Case studies are presented for understanding, communicating, and managing industrial manufacturing processes. This course includes examples of changing operating practices, materials substitution, process/product changes and recycling/reuse. Topics include how to develop a process flow diagram and material balances for a generic manufacturing facility, how to identify potential pollution prevention opportunities, and how to determine feasibility of various pollution plants. Upon completion, students should be able to develop and evaluate pollution prevention plans.
**EVT 250 Hazardous Waste Operations and Emergency Response** 3-1-4
This course is an overview of emergency planning techniques for hazardous materials spills. Topics include the coordination and implementation of emergency response procedures, and first aid and CPR. Upon completion, students should be able to design and/or evaluate emergency response plans.

**EVT 260 Introduction to Industrial Hygiene** 2-1-3
This course focuses on laboratory and plant hazards. Topics include sampling techniques, hazard evaluation, control of airborne contaminants, ventilation, filter preparation and sampling, air quality, respiratory disease, and the use of appropriate laboratory and safety equipment. Upon completion, students will have a thorough knowledge of all areas of industrial safety.

**EVT 280 Hazardous Materials Management** 2-1-3
This course focuses on methods of hazardous waste minimization, recovery, destruction, and disposal. Topics include conservation, recycling, and safe disposal techniques for any hazardous material. Upon completion, students should be able to explain MSDS sheets and explain processes to minimize waste creation.

**EVT 290 Workplace Analytical Methods** 2-2-3
This course introduces sampling strategy and technique, analytical methods and measurements, and evaluation of gathered test data. Topics include wet chemistry, gas chromatography, high performance liquid chromatography, spectrophotometry, and other electroanalytical techniques. Upon completion, students should be able to read and interpret data from these sources and make presentations on cause and effect results from the data.

**Geography (GEO)**

**GEO 100 World Regional Geography** 3-0-3
This course surveys various countries and major regions of the world with respect to location and landscape, world importance, political status, population, type of economy, and its internal and external organization problems and potentials.

**GEO 200 Geography of North America** 3-0-3
This course is a survey of the geography of the United States and Canada with special emphasis on land usage, mineral resources, industrial development, and social and economic adaptation of man and the natural environment.

**GEO 201 Human Geography** 3-0-3
PREREQUISITE: GEO 100
A conceptual approach to the study of humans, their distribution, economic systems, behavior patterns, value systems and environmental perceptions, with emphasis given to the resulting patterns of cultural landscapes that characterize the earth.

**GEO 220 Principles of Physical Geography** 3-0-3
PREREQUISITE: GEO 100.
This course is an introduction to natural features of the earth. It concentrates on weather, climate, soil, and vegetation associations, on landforms and on the forces that have been active in shaping the earth’s surface.

*Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.*

**Health Education (HED)**

**HED 226 Wellness** 3-0-3
This course provides health-related education to those individual seeking advancement in the area of personal wellness. The course has 5 major components: (1) fitness and health assessment, (2) physical work capacity, (3) education, (4) reassessment and (5) retesting.

**HED 231 First Aid** 3-0-3
This course provides instruction to the immediate, temporary care which should be given to the victims of accidents and sudden illness. It also includes standard and advanced requirements of the American Red Cross, and/or the American Heart Association. CPR training also is included.

**Health Information Technology (HIT)**

**HIT 230 Medical Coding Systems I** 3-0-3
Prerequisite: A grade of “C” or higher in HIT 230.
This course is intended to develop an understanding of coding and classification systems in order to assign valid medical codes. Instruction includes description of classification and nomenclature systems; coding diagnoses and/or procedures; sequencing codes; analyzing actual medical records to identify data elements to be coded; and validating coded clinical information. Student competency includes demonstration of coding principles and applications (manual and/or computer assisted).

**HIT 232 Medical Coding Systems II** 3-0-3
Prerequisite: A grade of “C” or higher in HIT 230.
This course is a continuation of Medical Coding Systems I which is intended to develop an understanding of coding and classification systems in order to assign valid medical codes. Instruction includes coding diagnoses and/or procedures; sequencing codes; analyzing actual medical records to identify data elements to be coded; validating coded clinical information. Student competency includes demonstration of coding principles and applications.

**History (HIS)**

**HIS 101 Western Civilization I** 3-0-3
This course surveys the social, economic, and political developments which shaped the modern western world. This course covers history from the ancient world through the Reformation.

**HIS 102 Western Civilization II** 3-0-3
This course continues HIS 101. It surveys the development of the western world from the Reformation to the present.

**HIS 201 United States History I** 3-0-3
This course surveys United States history during colonial, Revolutionary, early national and antebellum periods. It concludes with the Civil War and Reconstruction.

**HIS 202 United States History II** 3-0-3
This course is a continuation of HIS 201; it surveys United States history from the Reconstruction era to the present.

**HIS 216 History of World Religions** 3-0-3
This course presents a comparison of the major religions of the world from a historical perspective. Emphasis is placed on the origin, development, and social influence of Christianity, Judaism, Islam, Hinduism, Buddhism, and others.
+HIS 220 Contemporary Studies 3-0-3
This course provides a survey of contemporary problems and issues within a historical context. Topics might include nationalism, the rise of Islam as a powerful influence in the post-Cold War environment, environmental issues, and the impact of colonialism on modern, Third World Society.

+HIS 256 African-American History 3-0-3
This course focuses on the experience of African-American people in the western hemisphere, particularly the United States. It surveys the period from the African origins of the slave trade during the period of exploration and colonization to the present. The course presents a comparison between the African experience in the United States and in Mexico and South America.

+HIS 260 Alabama History 3-0-3
This course surveys the development of the state of Alabama from pre-historic times to the present. The course presents material on the discovery, exploration, colonization, territorial period, ante-bellum Alabama, Reconstruction, and modern history.

+HIS 299 Directed Studies in History 1/3-0-1/3
This course affords students opportunities to study selected topics of a historical nature under the direction of an instructor either as part of class or on an individual basis. Internships with historical and preservation organizations, thesis development, and the analysis of secondary monographs are examples of activities for this course. HIS 299 may be repeated for credit.
+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Humanities (HUM)
Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

HUM 100 Humanities Forum 1-0-1
In this course, credit is given for participation in lectures, concerts, and other events which have relevance to the study of the humanities. The course may be repeated for credit.

HUM 120 International Studies in Culture 1-3/0/1-3
This course offers a survey of art, music, and culture of foreign countries. This may involve travel abroad and may be repeated for credit.

HUM 298 Directed Studies
This course provides an opportunity for the student to study selected topics in the area of the humanities under the supervision of a qualified instructor. The specific topics will be determined by the interests of the students and faculty and the course may be repeated for credit.

HUM 299-A Phi Theta Kappa-Honors A 1-0-1
This course provides an opportunity for the student to study selected topics in the area of the humanities under the supervision of a qualified instructor. The topics will be broad in scope and content rather than specific, and will reference important cultural works from a variety of areas, which may include literature, religious studies, speech, foreign languages, art, music, theatre, and dance. The course may be repeated for credit.

HUM 299-B Phi Theta Kappa-Honors B 1-0-1
This course provides an opportunity for the student to study selected topics in the area of the humanities under the supervision of a qualified instructor. The topics will be broad in scope and content rather than specific, and will reference important cultural works from a variety of areas, which may include literature, religious studies, speech, foreign languages, art, music, theatre, and dance. The course may be repeated for credit.

HUM 299-C Phi Theta Kappa-Honors C 1-0-1
This course provides an opportunity for the student to study selected topics in the area of the humanities under the supervision of a qualified instructor. The topics will be broad in scope and content rather than specific, and will reference important cultural works from a variety of areas, which may include literature, religious studies, speech, foreign languages, art, music, theatre, and dance. The course may be repeated for credit.

Interdisciplinary Studies (IDS)
IDS 115 Forum 1-0-1
In this course, credit is given in recognition of attendance at academic lectures, concerts, and other events. IDS 115 requires attendance at designated events which are chosen from various lectures, cultural events and programs given at the college or in the community. IDS 115 may be repeated for credit.

IDS 200 College Scholars Bowl Workshop 1-0-1
PREREQUISITE: Permission of the instructor.
This course offers the student preparation, practice, and participation in the College Scholars Bowl Program and competition. IDS 200 may be repeated for credit.

IDS 299 Directed Studies in Leadership 1/2-0-1/2
PREREQUISITE: Permission of the instructor.
This course provides training and experience in leadership techniques and practice. Students are required to serve in leadership positions on campus or in the community. IDS 299 may be repeated for credit.

Electronics Technology (ILT)
Availability of courses in this program is dependent upon student enrollment. See advisor for further information.

ILT 106 Concepts of Direct Current 3-2-5
This course provides a study of basic concepts and application of direct current (DC). Specific topics include but are not limited to, an introduction to electrical theory, units of electrical measurement, DC electrical components, and constructing various types of DC circuits. Students gain hands-on experience through various laboratory problems. Emphasis is placed on the use of scientific calculators and the operation of common test equipment used to analyze and troubleshoot DC circuits and to prove the theories taught during classroom instruction.

ILT 107 Concepts of Alternating Current 3-2-5
This course provides a study of basic concepts and application of alternating current (AC). Specific topics include, but are not limited to, an introduction to AC electrical theory, AC electrical measurements, and constructing and measuring various types of AC circuits. Students gain hands-on experience through various laboratory problems. Emphasis is placed on
the use of scientific calculators and the operation of various test equipment used to analyze and troubleshoot AC circuits.

ILT 112 Concepts of Digital Electronics 3-2-5
This course provides instruction in digital electronics. Topics include number systems and codes, a review of Boolean algebra, logic elements, digital circuits, programmable logic circuits, and memory and computing circuits. This course provides laboratory exercises to analyze, construct, test and troubleshoot digital circuits.

ILT 113 Concepts of Electronic Circuits 3-2-5
This course covers the commonly utilized circuits found in all areas of electronics. These include various rectifiers, filters, voltage regulating circuits, operational amplifier circuits, ICs, and oscillator circuits. Upon completion students will be able to construct and test various types of electronic circuits.

ILT 114 Instrumentation Operation and Calibration 2-1-3
The hardware used to measure and control process variables is presented. The student learns the principles of operation, servicing, maintenance, calibration, and troubleshooting procedures used on mechanical, pneumatic, electronic and digital based industrial transmitters, recorders, controllers, valves, and other control devices. The course is broken down into theory and laboratory work on actual process measuring and control equipment.

ILT 117 Principles of Construction Wiring 1-2-3
This course provides a study of the technical skills required to safely perform electrical wiring installations. Topics include methods of wiring residential, commercial, and industrial locations. Upon completion, students should be able to apply safe wiring skills to residential, commercial and industrial applications.

ILT 129 Personal Computer (PC) Hardware 2-1-3
This course covers PC Hardware terminology, component purpose, configuration, pricing and selecting components and systems, for assembling, repairing, and upgrading personal computers. Upon completion of this course, students should be able to describe the basic systems of a PC and be able to perform disassembly and assembly of same.

ILT 130 PC Software Installation and Maintenance 2-1-3
This course will cover installation and maintenance for operating systems and application software on personal computers. Upon completion of this course, students should be able to install and maintain common software packages found on personal computers.

ILT 131 Personal Computer (PC) Problem Determination 2-1-3
PREREQUISITE: ILT 129 and ILT 130.
This course will cover various hardware and software tools for diagnosing failures of personal computers. Upon completion of this course, students should be able to diagnose and prescribe the repair steps for a faulty personal computer.

ILT 133 Electronic Drafting 0-1-1
This course includes basic drawing techniques, interpreting schematic diagrams and recognizing electronic symbols. Upon completion of this course, students should be able to recognize electronic symbols and draw schematic, layout, and pictorial drawings.

ILT 135 Local Area Networks (LANS) 2-1-3
This course provides the student with knowledge of planning, installation, maintenance, and administration of local area networks. Upon completion of this course, students should be able to install and set up a basic local area network.

ILT 139 Introduction to Robotic Programming 1-2-3
This course provides an introduction robotic programming. Emphasis is placed on but not limited to the following: Safety, motion programming, creating and editing programs, I/O instructions, macros, program and file storage. Upon completion the student will be able to safely perform basic functions in the work cell as well as program a robot to perform simple functions.

ILT 148 Automatic Controls Systems 3-0-3
This course emphasizes automated control systems and sub-systems. Topics include robotics, programmable hydraulics, pneumatic, microprocessor, variable-speed drives, transducers, and related control circuitry with emphasis on troubleshooting the total system. Upon completion, students should be able to apply principles of automated control systems.

ILT 149 Automatic Controls Systems Lab 0-2-2
This lab emphasizes robotics, programmable hydraulics/pneumatic, microprocessors, variable-speed drives, transducers, and related control circuitry with emphasis on troubleshooting the total system. Upon completion, students should be able to apply principles of automated control systems.

ILT 160 DC Fundamentals 1-2-3
This course is designed to provide students with a working knowledge of basic direct current (DC) electrical principles. Topics include safety, basic atomic structure and theory, magnetism, conductors, insulators, use of Ohm’s law to solve for voltage, current, and resistance, electrical sources, power, inductors, and capacitors. Students will perform lockout/tag out procedures, troubleshoot circuits and analyze series, parallel, and combination DC circuits using the electrical laws and basic testing equipment to determine unknown electrical quantities. This is a CORE course.

ILT 161 AC Fundamentals 1-2-3
PREREQUISITE: ILT 160
This course is designed to provide students with a working knowledge of basic alternating current (AC) electrical principles. Topics include basic concepts of electricity, electrical components, basic circuits, measurement instruments, the laws of alternating current, and electrical safety with lockout procedures. Hands on laboratory exercises are provided to analyze various series, parallel, and combination alternating current circuit configurations containing resistors, inductors, and capacitors. Upon course completion, students will be able to describe and explain alternating current circuit fundamentals such as RLC circuits, impedance, phase relationships, and power factors. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. This is a CORE course.

ILT 164 Circuit Fabrication I 0-1-1
This course provides instruction in fabrication of functional circuits and is an introduction to device construction and fabrication. Utilizing discrete components, students will fabricate functional circuits. Topics include soldering, cable construction, coaxial cable connection and termination,
component mounting, cases, and chassis, printed circuit board design, layout, fabrication, and repair, as well as soldering techniques, care of tools, wire splicing, wire wrapping, connector maintenance, and related shop safety. Upon completion of this course, students should be able to perform basic circuit and project construction.

**ILT 169 Hydraulics/Pneumatics** 2-1-3
This course provides an introduction to hydraulics and pneumatics. Topics include hydraulic pumps, pneumatic compressors, and system components such as valves, filters, regulators, actuators, accumulators, and lubricators. Upon completion, students should be able to apply principles of hydraulics and pneumatics.

**ILT 175 Computer Fundamentals for Technology Students** 3-0-3
This course introduces the student to applications of computers in the laboratory setting. It will cover the computer from a hardware standpoint and introduce the operating system. Application software will include word processing, spreadsheets, database managers, and other electronic related software. Upon completion, students should be able to operate a personal computer in the technical setting.

**ILT 179 Wireless Communication Devices** 2-1-3
This course is an introduction course to wireless communication technologies and applications in support of networked structures. Wireless device specification, integration, configuration, and utilization of IEEE 802.11x compliant communication equipment and their integration into the support of WAN and LAN structures commonly found in corporate, industrial, automotive (telematics), or commercial platforms will be the main emphasis of this course. Specific wireless communication theory concerning wireless boundaries, security and encryption methods, and quality of service measurements will be discussed along with WAN/LAN expansion and limitations from a system design prospective.

**ILT 180 Special Topics** 3-0-3
**PREREQUISITE:** Permission of the instructor.
This course is designed to allow students an opportunity to study directly-related topics of particular interest which require the applications of technical knowledge and technical skills. Emphasis is placed on the application of skills and knowledge with practical experiences. Upon completion, students should be able to solve job related problems using technical skills and knowledge.

**ILT 194 Introduction to Programmable Logic Controllers** 2-1-3
This course provides an introduction to programmable logic controllers. Emphasis is placed on, but not limited to, the following: PLC hardware and software, numbering systems, installation, and programming. Upon completion, students must demonstrate their ability by developing, loading, debugging, and optimizing PLC programs.

**ILT 196 Advanced Programmable Logic Controllers** 2-1-3
**PREREQUISITE:** ILT 194
This course includes the advanced principals of PLC’s including hardware, programming, and troubleshooting. Emphasis is placed on developing advanced working programs, and troubleshooting hardware and software communication problems. Upon completion, students should be able to demonstrate their ability in developing programs and troubleshooting the system.

**ILT 197 Motor Controls I** 1-2-3
This course is a study of the construction, operating characteristics, and installation of different motor control circuits and devices. Emphasis is placed on the control of three phase AC motors. This course covers the use of motor control symbols, magnetic motor starters, running overload protection, pushbutton stations, multiple control stations, two wire control, three wire control, jogging control, sequence control, and ladder diagrams of motor control circuits. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using pushbutton stations and understand complex motor control diagrams.

**ILT 201 Industrial Electronics** 3-0-3
**COREQUISITE:** ILT 202.
This course covers applications of electronics in industry with a major emphasis on microprocessors as applied to data acquisition and machine control. Topics include A/D and D/A conversion, signal conditioning, sensors and transducers, control devices, stepper motors, and microprocessor interfacing. Upon completion of this course, students should be able to describe the operation of various sensors, signal conditioning, A/D and D/A conversion, and control devices, as well as perform necessary calculations.

**ILT 202 Industrial Electronics Lab** 0-2-2
**COREQUISITE:** ILT 201.
This course demonstrates the concepts, devices, and applications of electronics in industrial processes. Upon completion of this course, students should be able to construct, evaluate, and calibrate basic industrial sensing and control circuits.

**ILT 203 Biomedical Electronics I** 3-0-3
**PREREQUISITE:** Permission of the instructor.
This course includes the technical information necessary in learning to repair biomedical equipment. Topics include the human body, electrodes and transducers, bioelectric amplifiers, physiological pressure measurements, and electrical and patient safety. Upon completion of this course, students should be able to describe the operation of various circuits and systems commonly found in biomedical equipment.

**ILT 204 Biomedical Electronics II** 3-0-3
**PREREQUISITE:** ILT 203.
This course combines theory gained from Biomedical Electronics I for a deeper understanding of biomedical equipment troubleshooting. Topics include respiratory therapy instrumentation, intensive and coronary care unit instrumentation, operating room instrumentation, medical laboratory instrumentation, and electrical safety. Upon completion of this course, students should be able to describe the operation of various circuits and systems commonly found in biomedical equipment.

**ILT 205 Microprocessors** 3-0-3
**PREREQUISITE:** ILT 112.
This course introduces microprocessors and explores their applications. This course emphasizes programming and interfacing the microprocessor chip. Upon completion of this course, students should be able to perform binary arithmetic, perform computer arithmetic, describe the basic operation procedures for a microprocessor system, and write programs for a basic microprocessor.
ILT 206 Microprocessors Lab 0-2-2
COREQUISITE: ILT 205.
This course provides familiarization of microprocessor instruction sets. Experiments in programming and interfacing provide an understanding of microprocessor theory. Upon completion of this course, students should be able to program and interface a basic microprocessor system.

ILT 216 Industrial Robotics 3-0-3
This is an introductory course for robotics including the history of robotics, social implications, and reasons for implementing. Robot classification, associated terminology, power systems, control systems, and end-of-arm tooling will be covered. Upon completion, students should be able to explain the basic systems and operation of a simple robot.

ILT 218 Industrial Robotics Concepts 2-1-3
This course provides instruction in concepts and theories for the operation of robotic servo motors and power systems used with industrial robotic equipment. Emphasis is on the application of the computer to control power systems to perform work. Student competencies include understanding of the functions of hydraulic, pneumatic, and electrical power system components, ability to read and interpret circuitry for proper troubleshooting and ability to perform preventative maintenance.

ILT 228 FCC General Radiotelephone License Prep 3-0-3
This course includes the information necessary for the successful completion of the Federal Communication Commission's General Radiotelephone License Examination. A comprehensive coverage of rules, regulations, and electronic theory is accomplished. Upon completion of this course, students should understand the preparation necessary to successful completion of the exam process.

ILT 234 Microprocessor Systems Troubleshooting 2-1-3
PREREQUISITE: ILT 205.
This course provides familiarization with various techniques and test equipment required to troubleshoot microprocessor based designs to the component and module level. It provides hands on experience troubleshooting microcomputer trainers designed for fault insertion. Upon completion, students should be able to troubleshoot a faulty microprocessor based system.

ILT 237 Network Cabling-Copper 1-1-2
This course involves presentations, discussions and live simulations of work related experiences involved in data, voice, and video infrastructure. Students learn to terminate, test, troubleshoot, and install copper-based cabling systems. They learn category 5 systems, IBM cabling systems, and coaxial systems. This course helps prepare students for certification as Network Cabling specialists.

ILT 239 Certification Preparation 3-0-3
This course includes the review necessary before attempting technician certification examinations given by various non-government certifying organizations and pre-employment tests given by employers. Upon completion of this course students should understand the preparations necessary to successfully complete the exam process.

ILT 240 Sensors Technology and Applications 2-1-3
This course provides a study of industrial electronic sensors. Topics include, but are not limited to, photo-electric, temperature, gas and humidity, pressure and strain sensors. The lab enables students to test, and troubleshoot electronic sensors and sensor circuits. Upon completion, students should be able to select, install, test, and troubleshoot industrial electronic sensors.

ILT 271 Independent Study 0-2-2
PREREQUISITE: Permission of the instructor.
This course is designed to allow students to independently study various topics related to instrumentation technology. Emphasis is placed on the refinement or advancement of a particular skill or skills. Upon completion, students should be able to perform specific job related functions according to standard operating procedures.

ILT 274 Independent Study 0-3-3
PREREQUISITE: Permission of the instructor.
This course is designed to allow students to independently study various topics related to instrumentation technology. Emphasis is placed on the refinement or advancement of a particular skill or skills. Upon completion, students should be able to perform specific job related functions according to standard operating procedures.

ILT 280 Special Topics in AC/DC Circuits 0-3-3
PREREQUISITE: Permission of the instructor.
This course is designed to allow students an opportunity to study directly-related topics of particular interest which require the application of technical knowledge and technical skills. Emphasis is placed on the application of skills and knowledge with practical experiences. Upon completion, students should be able to solve job-related problems using technical skills and knowledge.

ILT 280A Special Topics - A+ Certification Preparation 3-0-3
PREREQUISITE: ILT 129, ILT 130, ILT 131, and ILT 135, or by permission of the instructor.
This course includes the information necessary for the successful completion of Technician A+ certification examinations. A comprehensive coverage of core hardware and operating systems is accomplished. Upon completion, students should understand the preparation necessary to successfully complete the core hardware and operation systems technologies exams.

ILT 280B Special Topics - Network+ Certification Preparation 3-0-3
PREREQUISITE: ILT 129, ILT 130, ILT 131, and ILT 135, or by permission of the instructor.
This course includes the information necessary for the successful completion of the vendor-neutral Computer Technology Industry Association’s (CompTIA) Network+ certification examination. A comprehensive coverage of all exam objectives is accomplished. Upon completion, students should understand the preparation necessary to successfully complete the exam process.

ILT 280E Special Topics - EEI Test Preparation 3-0-3
This course includes the review necessary before attempting the Edison Electric Institute’s test battery used by employers to predict performance in training and on the job. Areas of review will include reading comprehension, mechanical concepts, spatial ability, mathematical usage, tables and graphs, and completing the background and opinion questionnaire. Upon completion, students should be able to understand the preparations necessary to successfully complete the test battery.
ILT 280P Power Generation 3-0-3
This course introduces the concepts of electrical power generation and distribution. Methods of electrical power generation discussed include: fossil, hydro, wind, nuclear and solar. Additional topics include: the power grid, historical factors, and current environmental concerns related to power generation.

ILT 291 Cooperative Education 0-3-3
PREREQUISITE: Permission of the instructor.
This course provides students work experience with a college-approved employer in an area directly related to the student’s program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

ILT 292 Cooperative Education 0-15-3
PREREQUISITE: Permission of the instructor.
This course provides students work experience with a college-approved employer in an area directly related to the student’s program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

ILT 293 Cooperative Education 0-3-3
PREREQUISITE: ILT 203.
This course provides students work experience with a college-approved employer in an area directly related to the student’s program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

ILT 294 Biomedical Electronics Clinical I 0-3-3
PREREQUISITE: ILT 203.
Students will be assigned to a local hospital facility, working in the technical capacity as a biomedical electronic technician trainee. Upon completion, students have gained experience as a biomedical equipment technician.

ILT 295 Biomedical Electronics Clinical II 0-3-3
PREREQUISITE: ILT 204.
Continuation of the clinical on-site study I where students are assigned to a local hospital facility working in the technical capacity as a Biomedical Electronic Technician Trainee. Upon completion, students have gained experience as a biomedical equipment technician.

WKO 110 NCCER Core 2-1-3
This course is designed to provide students with knowledge and skills related to multi-craft technicians in a variety of fields. Information in this course is based on the National Center for Construction Education and Research (NCCER) core curriculum and prepares students to test for the NCCER credential.

**Industrial Maintenance Technology (INT)**

INT 101 DC Fundamentals 2-1-3
PREREQUISITE: As required by college.
NOTE: There is an approved standardized plan-of-instruction for this course.
This course provides an in depth study of direct current (DC) electronic theory. Topics include atomic theory, magnetism, properties of conductors and insulators, and characteristics of series, parallel, and series-parallel circuits. Inductors and capacitors are introduced and their effects on DC circuits are examined. Students are prepared to analyze complex DC circuits, solve for unknown circuit variables and to use basic electronic test equipment. This course also provides hands on laboratory exercises to analyze, construct, test, and troubleshoot DC circuits. Emphasis is placed on the use of scientific calculator and the operation of common test equipment used to analyze and trouble shoot DC and to prove the theories taught during classroom instruction. This is a CORE course.

INT 102 Industrial Maintenance Cutting/Welding 1-3-2
This course provides instruction in the fundamentals of acetylene cutting and the basic SMAW (stick) welding. Topics covered are acetylene torch cutting equipment, safety and use; welding safety, welding hand tools, type of welding machines and welding rods, determining types of metal, welding passes, beads, and joints.

INT 103 AC Fundamentals 2-1-3
PREREQUISITE: As required by college.
NOTE: There is an approved standardized plan-of-instruction for this course.
This course provides an in depth study of alternating current (AC) electronic theory. Students are prepared to analyze complex AC circuit configurations with resistors, capacitors, and inductors in series and parallel combinations. Topics include electrical safety and lock out procedures, specific AC theory functions such as RLC, impedance, phase relationships, and power factor. Students will be able to define terms, identify waveforms, solve complex mathematical problems, construct circuits, explain circuit characteristics, identify components, and make accurate circuit measurements using appropriate measurement instruments. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. This is a CORE course.

INT 105 Introduction to Process Technology 2-1-3
This course is designed to provide the student with an introduction to process control technology and various instruments used to control processes. Upon completion, students should be able to comprehend principles of process control technology and the application of various instruments used to control processes in an industrial setting.

INT 106 Elements of Industrial Mechanics 2-1-3
This course provides instruction in basic physics concepts applicable to industrial mechanics. Topics include mechanical principles with emphasis placed on power transmission and specific mechanical components. Upon course completion, students will be able to apply principles relative to mechanical tools, fasteners, basic mechanics, lubrication, bearings, packing and seals.
INT 107 Fundamentals of Electricity I 3-0-3
This course provides students with knowledge of basic electrical theory and the use of basic instruments to measure electricity. It is a foundational course to enable students to diagnose and repair electrical systems in an industrial setting.

INT 108 Fundamentals of Electricity II 2-3-3
This course covers the principles of direct current (DC) and alternating current (AC) circuits. It includes the use of scientific calculators and the operation of common test equipment used to analyze and troubleshoot DC circuits. Emphasis is placed on variables like resistance, voltage, and current through various laboratory problems.

INT 109 Components of Material Handling 2-1-3
This course focuses on the different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of material handling equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.

INT 110 Automated Material Handling 2-1-3
This course focuses on the automatic function and control of different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of material handling equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.

INT 111 Industrial Maintenance Safety Procedures 3-0-3
This course provides students with hands-on experience in performing scheduled maintenance, and troubleshooting a simulated material handling system. Topics include health, safety, and environmental practices required for maintenance of industrial production equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.

INT 112 Industrial Motor Control I 1-2-3
This course focuses on the automatic function and control of different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of material handling equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.

INT 113 Industrial Motor Control II 3-0-3
This course focuses on the automatic function and control of different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of material handling equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.

INT 114 Level and Pressure Devices 3-0-3
This course focuses on the automatic function and control of different modes of handling manufactured goods or products. Topics include the installation, operation, and maintenance of material handling equipment. Emphasis is placed on the development of a simulated condition of control parameters within the material handling process, determining control limits, and troubleshooting performance or function failures. Upon completion, students should be able to install, operate, monitor, maintain, and troubleshoot a simulated material handling system.
INT 123 Concepts of Solid State Electronics 3-2-5
This course is an introduction to semiconductor fundamentals and applications to electronic devices. It covers the basic operations and applications of rectifier circuits, transistors, and thyristors. Coverage is given to safety, use, and care with hazardous materials and personnel as well as material and environmental considerations. Upon completion students will be able to construct and test for proper operation of various types of solid state devices.

INT 126 Preventive Maintenance 1-2-3
This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts.

INT 127 Principles of Industrial Pumps and Piping Systems 2-1-3
This course provides information in the fundamental concepts of industrial pumps and piping systems. Topics include pump identification, operation, and installation; maintenance and troubleshooting; and piping systems and their installation. Upon course completion, students will be able to install, maintain, and troubleshoot industrial pumps and piping systems.

INT 128 Principles of Industrial Environmental Controls 2-1-3
This course focuses on the basic knowledge and skills to service perform routine troubleshooting, maintenance, and adjustments of HVACR systems in an industrial environment. After completion, students will be able to perform routine, low-level maintenance on institutional environmental systems. Additionally, students receive instruction to complete the EPA 608 certification examination.

INT 130 Concepts of Digital Electronics 3-2-5
This course provides instruction in digital electronics. Topics include number systems and codes, a review of Boolean algebra, logic elements, digital circuits, programmable logic circuits, and memory and computing circuits. This course provides laboratory exercises to analyze, construct, test and troubleshoot digital circuits.

INT 132 Preventive and Predictive Maintenance 2-1-3
This course focuses on the concepts and applications of preventive and predictive maintenance. Topics include the introduction to optic alignment equipment, vibration testing and analysis, data collection, job safety, tool safety, systems analysis, preventive maintenance procedures and tasks, and predictive maintenance concepts. Upon completion, students will demonstrate the ability to apply the planning process for proper preventive and predictive maintenance.

INT 134 Principles of Industrial Maintenance Welding and Metal Cutting Techniques 2-1-3
This course provides instruction in the fundamentals of acetylene cutting and the basics of welding needed for the maintenance and repair of industrial production equipment. Topics include oxy-fuel safety, choice of cutting equipment, proper cutting angles, equipment setup, cutting plate and pipe, hand tools, types of metal welding machines, rod and welding joints, and common welding passes and beads. Upon course completion, students will demonstrate the ability to perform metal welding and cutting techniques necessary for repairing and maintaining industrial equipment.

INT 139 Introduction to Robotic Programming 1-2-3
This course provides an introduction to robotic programming. Emphasis is placed on but not limited to the following: Safety, motion programming, creating and editing programs, I/O instructions, macros, program and file storage. Upon completion the student will be able to safely perform basic functions in the work cell as well as program a robot to perform simple functions.

INT 153 Precision Machining Fundamentals I 2-1-3
This course focuses on metal cutting machines used to make parts and tools. Topics include lathes, mills, drills, and presses. Upon completion, students will have the ability to use precision measurement instruments and to read mechanical drawings.

INT 158 Industrial Wiring I 1-2-3
This course focuses on principles and applications of commercial and industrial wiring. Topics include electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles.

INT 161 Blueprint Reading for Industrial Technicians 3-0-3
This course is designed to provide the student a comprehensive understanding of blueprint reading. Topics include identifying types of lines and symbols used in mechanical drawings; recognition and interpretation of various types of views, tolerance, and dimensions.

INT 184 Introduction to Programmable Logic Controllers 2-1-3
This course provides an introduction to programmable logic controllers. Emphasis is placed on but not limited to, the following: PLC hardware and software, numbering systems, installation, and programming. Upon completion, students must demonstrate their ability by developing, loading, debugging, and optimizing PLC programs.

INT 206 Industrial Motors I 1-2-3
This course focuses on basic information regarding industrial electrical motors. Upon completion, students will be able to troubleshoot, remove, replace, and perform routine maintenance on various types of motors.

INT 207 Industrial Automatic Controls 3-0-3
This course focuses on the function of automatic controllers in different modes: on-off, proportional, reset, derivative, ratio, and cascade. Topics include operation of pneumatic, electronic, and computer process control equipment; service of basic process equipment and instrumentation; correct operation and maintenance of valves and pumps; recognizing patterns from data; developing and interpreting control charts; determining control limits; and performing root cause analysis. Upon completion, students should be able to write start-up and shut-down procedures, and operate, monitor, and control continuous and batch model plants.

INT 211 Industrial Motors II 1-2-3
PREREQUISITE: INT 206
This course focuses on advanced information regarding industrial electrical motors. Upon completion, students will be able to troubleshoot, remove, replace, and perform advanced maintenance on various types of motors.
INT 213 Industrial Motor Control II 1-2-3
This course is a continuation of INT 113 focusing on additional theory and practice regarding industrial motor control schematics and wiring. Included are multispeed and softstart wiring techniques for industrial motors and synchronous motor control. The student will also be exposed to the theory, setup and programming of variable speed drives. Upon completion, students will be able to remove, replace, and wire different types of resistors, reactors and transformers similar to those used in the control of industrial polyphase motors and large DC motors.

INT 215 Troubleshooting Techniques 1-2-3
This course is designed to allow students an opportunity to study directly-related topics of particular interest which require the application of technical knowledge and technical skills. Emphasis is placed on the application of skills and knowledge with practical experiences. Upon completion, students should be able to solve job related problems using technical skills and knowledge.

INT 222 Special Topics 2-1-3
This course provides specialized instruction in various areas related to industrial maintenance. Emphasis is placed on meeting students’ needs.

INT 232 Manufacturing Plant Utilities 2-3-3
This course focuses on the theory of operating and maintaining plant utilities. Topics include the operation/control and maintenance of boilers, HVAC systems, and air compressors. Upon course completion, students will demonstrate the ability to repair and maintain utilities systems in an industrial setting.

INT 252 Variable Speed Motor Drives 2-1-3
This course 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 frequency drives, DC variable speed drives, installation procedures, and ranges. Upon course completion, students will understand the principles of operation of variable speed drive systems, function of components of each system, set-up and installation and troubleshooting techniques for variable speed drives.

INT 253 Industrial Robotics 2-1-3
This course provides instruction in concepts and theories for the operation of robotic servo motors and power systems used with industrial robotic equipment. Emphasis is on the application of the computer to control power systems to perform work. Student competencies include understanding of the functions of hydraulic, pneumatic, and electrical power system components, ability to read and interpret circuitry for proper troubleshooting, and ability to perform preventative maintenance.

INT 254 Robot Maintenance and Troubleshooting 2-1-3
This course introduces the principle concepts in troubleshooting and maintenance of robots. Topics include recognizing and describing major robot components. Students will learn to diagnose robot mechanical problems to the component level; to replace mechanical components and perform adjustments; to troubleshoot class 1, 2, and 3 faults; to manipulate I/O for the robot; and periodic and preventive maintenance. Students will learn how to safely power up robots for complete shutdown and how to manipulate robots using the teach pendant. Upon completion students will be able to describe the various robot classifications and characteristics, explain system operations of simple robots, and maintain robotic systems.

INT 261 MSSC Safety Course 3-0-3
This course is designed to provide students with knowledge and skills related to safety in a manufacturing environment. Topics covered include:
- Work in a safe an productive manufacturing workplace
- Perform safety and environmental inspections
- Perform emergency drills and participate in emergency teams
- Identify unsafe conditions and take corrective action
- Provide safety orientation for all employees
- Train personnel to use equipment safely
- Suggest process and procedures that support safety of work environment
- Fulfill safety and health requirements for maintenance, installation and repair
- Monitor safe equipment and operator performance
- Utilize effective, safety-enhancing workplace practices

INT 280 Special Topics Computer Fundamentals 3-0-3
This course introduces the student to applications of computers in the laboratory setting. It will cover the computer from a hardware standpoint and introduce the operating system. Application software will include word processing, spreadsheets, database managers, and other electronic related software. Upon completion, students should be able to operate a personal computer in the technical setting.

INT 284 Advanced Programmable Logic Controllers 2-1-3
PREREQUISITE: INT 184
This course includes the advanced principles of PLC’s, including hardware, programming, and troubleshooting. Emphasis is placed on developing advanced working programs and troubleshooting hardware and software communication problems. Upon completion, students should be able to demonstrate their ability in developing programs and troubleshooting the system.

INT 288 Applied Principles of Programmable Controllers 2-1-3
This course provides a comprehensive study in the theory and application of specific models of programmable logic controllers. Topics include hardware configuration, memory and addressing detail function of software, instruction types, system troubleshooting, and simple programming techniques.

INT 291 Cooperative Education 0-3-3
This course provides students work experience with a college-approved employer in an area directly related to the student’s program of study. Emphasis is placed on integrating classroom experiences with work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competences.

Machine Shop Technology (MSP)*
Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

MSP 101 Basic Machining Technology 1-4-5
This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments.
Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

**MSP 102 Intermediate Machining Technology** 1-4-5
This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

**MSP 103 Advanced Machining Technology** 1-4-5
This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

**MSP 104 Basic Machining Calculations** 1-1-2
This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations.

**MSP 105 Lathes** 1-2-3
This course covers the operation and safety practices for engine lathes. Topics include turning, grinding, boring, chamfering, necking, grooving, and threading. Upon completion, students should be able to safely operate an engine lathe using appropriate attachments.

**MSP 107 Milling Machines** 1-2-3
This course provides instruction and practice in the use of milling machines. Emphasis is placed on the construction, operation and maintenance of milling machines. Upon completion, students should be able to design, cut, and manufacture tools and fixtures.

**MSP 111 Introduction to Computer Numerical Control** 1-1-2
This course introduces the concepts and capabilities of computer numerical control machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to explain operator safety, machine protection, data input, program preparation, and program storage.

**MSP 112 Basic Computer Numerical Control Turning** 1-2-3
This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

**MSP 113 Basic Computer Numerical Control Milling** 1-2-3
This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MSP 115 Advanced Milling Machines** 2-3-5
This course provides additional information on milling setups including rotary tables, boring, dovetail machining, dividing head work. Students obtain hands-on experience in the setup and use of these and other milling accessories.

**MSP 121 Basic Blueprint Reading for Machinists** 1-1-2
This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

**MSP 131 Introduction to Metrology** 1-1-2
This course introduces the care and use of precision measuring instruments. Emphasis is placed on the inspection of machine parts and use of a wide variety of measuring instruments. Upon completion, students should be able to demonstrate the correct use of measuring instruments.

**MSP 132 Grinding Machines** 1-2-3
This course provides instruction and practice in the use of grinding machines. Emphasis is placed on construction, operation, and maintenance of grinding machines. Upon completion, students should be able to perform essential procedures on grinding machines.

**MSP 135 Millwright Work** 2-2-4
This course provides information on welding, machine installation, couplings, precision measurement, and belts with an overview of the safety requirements for most industrial situations.

**MSP 136 Machine Repair** 1-6-3
This course provides information for students that plan to enter the field of machine tool maintenance. Concentrating on power transmission through various mechanical means and the disassembly and repair of these machines provides the students with the experience needed to repair many types of machines.

**MSP 137 Advanced CAM** 2-6-4
This course provides expanded views of CNC mill and lathe operations with in-depth instruction in the use of Computer Aided Machining (CAM) software to provide multiple axis part programs for the CNC mill using Master CAM Software.

**MSP 142 Advanced Machining Calculations** 1-1-2
This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

**MSP 173 Injection Mold Setter Skills** 1-4-3
This course is designed to teach students basic mold setter skills. They will learn the fundamentals of injection molding operations, including molding terminology, machine part identification, operating safety, machine controls and machine startup and shutdown. Students are taught to identify common part defects such as non-fill, burn marks, warpage, discoloration, weld lines, and flash. At the end of this course students should be able to safely work as a mold setter.

**MSP 175 Injection Mold Setter Skills Lab** 0-9-3
This course is designed to teach students basic mold setter skills in a laboratory environment. It is a companion course for AUT/MTT/MSP 173. The students will learn the practical application of injection molding operations, including molding terminology, machine part identification, operating safety, machine controls and machine startup and shutdown. Students are taught to identify and correct common part defects such as non-fill, burn marks, warpage, discoloration, weld lines, and flash. At the end of this course students should be able to safely work as a mold setter.
MSP 181 Special Topics - Grinding 1-1-2
This course is a guided independent study of special projects in Machine Shop Technology. Emphasis is placed on student needs. Upon completion, students should be able to demonstrate skills developed to meet specific needs.

MSP 182 Special Topics - Mill, Lathe, Saw 0-2-2
This course is a guided independent study of special projects in Machine Shop Technology. Emphasis is placed on student needs. Upon completion, students should be able to demonstrate skills developed to meet specific needs.

MSP 221 Advance Blueprinting 1-1-2
This course provides basic blueprint reading theory and practice for machining and welding trades. Three-dimensional comprehension and dimensioning practices are the primary concern of this course.

MSP 273 Injection Mold Processing 1-2-3
This course is designed to teach student basic injection mold processor skills. Topics will include safety, molding materials, machine controls, fill rates, temperature control, pressure control, and timing. Students will learn how various factors affect the injection mold process and how to compensate for those factors by setting and adjusting machine controls.

MSP 275 Injection Mold Processing Lab 0-3-3
This course is designed to teach students basic injection mold processor skills in a laboratory environment. It is a companion course for AUT/MTT/MSP 273. The students will learn the practical application of injection mold processes including safety, molding materials, machine controls, fill rates, temperature control, pressure control, and timing. Students will learn how various factors affect the injection mold process and how to compensate for those factors by setting and adjusting machine controls.

MSP 291 CO-OP in Machine Shop Technology 0-3-0
PREREQUISITE: Instructor approval required. Students work on a part-time basis in a job directly related to Machine Shop Technology. The employer and supervising instructor evaluate the student’s progress. Upon completion, students will be able to apply skills and knowledge in an employment setting.

Mathematics (MTH)

MTH 098 Elementary Algebra 4-0-4
This course is a review of the fundamental arithmetic and algebraic operations. The topics include the numbers of ordinary arithmetic and their properties, integers and rational numbers, the solving of equations, polynomials and factoring, and an introduction to systems of equations and graphs. Must have a C or better to enroll in MTH 100 and MTH 099.

MTH 099 Support for Intermediate College Algebra 3-0-3
PREREQUISITE: A grade of “C” or better in MTH 098 or appropriate mathematics placement score. (Note that MTH 099 is required for students completing MTH 098 Elementary Algebra.)
CO-REQUISITE: MTH 100 Intermediate College Algebra.
This Learning Support course provides co-requisite support in mathematics for students enrolled in MTH 100. The material covered in this course is parallel to and supportive of the material taught in MTH 100. Emphasis is placed on providing students with additional academic and noncognitive support with the goal of success in the students’ paired MTH 100 class. This course does not apply toward the general core requirement for mathematics.
NOTE: Students who withdraw from MTH 099 must also withdraw from MTH 100.

MTH 100 Intermediate College Algebra 3-0-3
PREREQUISITE: A grade of “C” or higher in MTH 098 Elementary Algebra or appropriate score.
CO-REQUISITE: MTH 099 Support for Intermediate College Algebra, if required. (Note that MTH 099 is required for students completing MTH 098 Elementary Algebra)
This course provides a study of algebraic concepts such as laws of exponents, polynomial operations, factoring polynomials, radical and rational expressions and equations and quadratic equations. Functions and relations are introduced and graphed. This course does not apply toward the general core requirement for mathematics.

MTH 109 Support for the Finite Math 1-0-1
COREQUISITE: MTH 110 Finite Math
Support for Finite Math provides corequisite support in mathematics for students enrolled in MTH 110 Finite Math. Topics will parallel topics being studied in MTH 110 such as sets, counting, permutations, combinations, basic probability (including Baye’s Theorem), and introduction to statistics (including work with Binomial Distributions), matrices and their applications to Markov chains and decision theory. This course will enhance the essential quantitative skills needed to be successful in MTH 110. This course does not apply toward the general core requirements for mathematics.

MTH 110 Finite Mathematics 3-0-3
PREREQUISITE: All core mathematics courses in Alabama must have as a minimum prerequisite high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with a C or higher (S if taken as pass/fail) Intermediate College Algebra.
This course is intended to give an overview of topics in finite mathematics together with their applications, and is taken primarily by students who are not majoring in science, engineering, commerce, or mathematics (i.e., students who are not required to take Calculus). This course will draw on and significantly enhance the student’s arithmetic and algebraic skills. The course includes sets, counting, permutations, combinations, basic probability (including Baye’s Theorem), and introduction to statistics (including work with Binomial Distributions and Normal Distributions), matrices and their applications to Markov chains and decision theory. Additional topics may include symbolic logic, linear models, linear programming, the simplex method and applications.

MTH 111 Support for Precalculus Algebra 1-0-1
COREQUISITE: MTH 112 Precalculus Algebra
Support for Precalculus Algebra provides corequisite support in mathematics for students enrolled MTH 112 Precalculus Algebra. Topics will parallel topics being studied in MTH 112 such as the algebraic functions - including polynomial, rational, exponential, and logarithmic functions, systems of equations and inequalities, quadratic inequalities, and the binomial theorem. This course will enhance the essential quantitative skills needed to be successful in MTH 112. This course does not apply toward the general core requirements for mathematics.
MTH 112 Precalculus Algebra 3-0-3
PREREQUISITE: All core mathematics courses in Alabama must have as a minimum prerequisite high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with C or higher (S if taken as pass/fail) Intermediate College Algebra. This course emphasizes the algebra of functions - including polynomial, rational, exponential, and logarithmic functions. The course also covers systems of equations and inequalities, quadratic inequalities, and the binomial theorem. Additional topics may include matrices, Cramer’s Rule, and mathematical induction.

MTH 113 Precalculus Trigonometry 3-0-3
PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher (S if taken as pass/fail) MTH 112. This course includes the study of trigonometric (circular functions) and inverse trigonometric functions, and includes extensive work with trigonometric identities and trigonometric equations. The course also covers vectors, complex numbers, DeMoivre’s Theorem, and polar coordinates. Additional topics may include conic sections, sequences, and using matrices to solve linear systems.

MTH 115 Precalculus Algebra & Trigonometry 4-0-4
PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher (S if taken as pass/fail) MTH 100 and receive permission from the department chairperson. This course is one semester combination of Precalculus Algebra and Precalculus Trigonometry intended for superior students. The course covers the following topics: the algebra of functions (including polynomial, rational, exponential, and logarithmic functions), systems of equations and trigonometric (circular functions) and inverse trigonometric functions, and includes extensive work with trigonometric identities and trigonometric equations, vectors, complex numbers, DeMoivre’s Theorem, and polar coordinates.

MTH 116 Mathematical Applications 3-0-3
This course provides practical applications of mathematics and includes selected topics from consumer math and algebra. Some topics included are integers, percent, interest, ratio and proportion, metric system, probability, linear equations, and problem solving.

MTH 120 Calculus and Its Applications 3-0-3
PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 112. This course is intended to give a broad overview of calculus and is taken primarily by students majoring in Commerce and Business Administration. It includes differentiation and integration of algebraic, exponential, and logarithmic functions and applications to business and economics. The course should include functions of several variables, partial derivatives (including applications), Lagrange Multipliers, L’Hôpital’s Rule, and multiple integration (including applications).

MTH 125 Calculus I 4-0-4
PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 113 or MTH 115. This is the first of three courses in the basic calculus sequence taken primarily by students in science, engineering, and mathematics. Topics include the limit of a function; the derivative of algebraic, trigonometric, exponential, and logarithmic functions; and the definite integral and its basic applications to area problems. Applications of the derivative are covered in detail, including approximations of error using differentials, maximum and minimum problems, and curve sketching using calculus.

MTH 126 Calculus II 4-0-4
PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 125. This is the second of three courses in the basic calculus sequence. Topics include vectors in the plane and in space, lines and planes in space, applications of integration (such as volume, arc length, work and average value), techniques of integration, infinite series, polar coordinates, and parametric equations.

MTH 227 Calculus III 4-0-4
PREREQUISITE: A grade of “C” or higher in MTH 126. This is the third of three courses in the basic calculus sequence. Topics include vector functions, functions of two or more variables, partial derivatives (including applications), quadric surfaces, multiple integration, and vector calculus (including Green’s Theorem, Curl and Divergence, surface integrals, and Stokes’ Theorem.)

MTH 231 Math for the Elementary Teacher I 3-0-3
PREREQUISITE: Appropriate mathematics placement score or a grade of “C” or higher in intermediate College Algebra. This course is designed to provide appropriate insights into mathematics for students majoring in elementary education and to ensure that students going into elementary education are more than proficient at performing basic arithmetic operations. Topics include logic, sets and functions, operations and properties of whole numbers and integers including number theory; use of manipulatives by teachers to demonstrate abstract concepts; and by students while learning these abstract concepts as emphasized in the class. Upon completion, students are required to demonstrate proficiency in each topic studied as well as to learn teaching techniques that are grade level and subject matter appropriate, and test for mathematical proficiency and the learning of teaching concepts.

MTH 232 Math for the Elementary Teacher II 3-0-3
PREREQUISITE: MTH 231. This course is the second of a three-course sequence and is designed to provide appropriate insights into mathematics for students majoring in elementary education and to ensure that students going into elementary education are more proficient at performing basic arithmetic operations. Topics include numeration skills with fractions, decimals and percentages, elementary concepts of probability and statistics, and analytic geometry concepts associated with linear equations and inequalities. The use of manipulatives and calculators in the teaching and learning process is stressed. Upon completion,
students will test for mathematical proficiency and the learning of teaching concepts. Students also will demonstrate an appropriate teaching techniques by preparing a lesson and teaching it to the class for their final exam grade.

+MTH 237 Linear Algebra 3-0-3
PREREQUISITE: A grade of “C” or higher in MTH 126. This course introduces the basic theory of linear equations and matrices, real vector spaces, bases and dimension, linear transformations and matrices, determinants, eigenvalues and eigenvectors, inner product spaces, and the diagonalization of symmetric matrices. Additional topics may include quadratic forms and the use of matrix methods to solve systems of linear differential equations. This course is offered upon sufficient enrollment.

+MTH 238 Applied Differential Equations I 3-0-3
COREQUISITE: MTH 227. This course is an introduction to numerical methods, qualitative behavior of first order differential equations, techniques for solving separable and linear equations analytically, and applications to various models (e.g. populations, motion, chemical mixtures, etc.); techniques for solving higher order linear differential equations with constant coefficients (general theory, undetermined coefficients, reduction of order and the method of variation of parameters), with emphasis on interpreting the behavior of the solutions, and applications to physical models whose governing equations are of higher order; the Laplace transform as a tool for the solution of initial value problems whose inhomogeneous terms are discontinuous. This course is offered upon sufficient enrollment.

+MTH 265 Elementary Statistics 3-0-3
PREREQUISITE: A grade of “C” or higher in MTH 100. This course provides an introduction to methods of statistics, including the following topics: sampling, frequency distributions, measures of central tendency, graphic representation, reliability, hypothesis testing, confidence intervals, analysis, regression, estimation, and applications. Probability, permutations, combinations, binomial theorem, random variables, and distributions may be included. *Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Medical Assisting Technology (MAT)

MAT 101 Medical Terminology 3-0-3
This course is designed for medical assistants, student nurses, and others in medically related fields. The course will focus on the more common prefixes, roots, and suffixes used to construct medical terms with these word parts to determine the meanings of new or unfamiliar terms. The student will learn a system of word building which will enable them to interpret medical terms.

MAT 102 Medical Assisting Theory I 3-0-3
A description of anatomical descriptors and the cells introduces the student to and serves as an overview of the body’s systems. The structure and function of the nervous, sensory, integumentary, muscular, skeletal, respiratory, and cardiovascular systems are taught with the diseases related to these body systems presented. Upon completion, students should be able to demonstrate a basic working knowledge of these body systems. BIO 201 may substitute for MAT 102.

MAT 103 Medical Assisting Theory II 3-0-3
The structure and function of the digestive, urinary, reproduction, endocrine, and immune systems are presented. Disease processes that are related to these systems will be included. Basic concepts of reproduction, growth and development, and nutrition are taught. Upon completion, students should be able to demonstrate a basic working knowledge of these body systems. BIO 202 may substitute for MAT 103.

MAT 111 Clinical Procedures I for the Medical Assistant 2-1-3
This course includes instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with examination, and patient education. Upon completion, students will be able to demonstrate competence in exam room procedures.

MAT 120 Medical Administrative Procedures I 2-1-3
This course introduces medical office administrative procedures. Topics include appointment scheduling, telephone techniques, managing the physician’s schedule, handling mail, preparing and maintaining medical records, and patient orientation. Upon completion, students should be able to perform basic medical secretarial skills.

MAT 121 Medical Administrative Procedures II 2-1-3
This course introduces medical office administrative procedures not covered in Medical Administrative Procedures I. Topics include fees, credit, and collections, banking, bookkeeping Payroll, and computerized finance applications. Upon completion students should be able to manage financial aspects of medical offices.

MAT 125 Laboratory Procedures I for the Medical Assistant 2-1-3
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective diagnostic test, such as a CBC, screening and follow-up of test results and OSHA/CLIA regulations. Upon completion students should be able to perform basic lab tests/ skills based on course topics.

MAT 128 Medical Law and Ethics for the Medical Assistant 3-0-3
This course provides basic information related to the legal relationship of patient and physician. Topics to be covered include creation and termination of contracts, implied and informed consent, professional liability, invasion of privacy, malpractice, tort, liability, breach of contract, and the Medical Practice Act. Upon completion, students should be able to recognize ethical and legal implications of these topics as they relate to the medical assistant.

MAT 200 Management of Office Emergencies 2-0-2
PREREQUISITIE: MAT 111
This course is designed to instruct students in handling emergencies in the medical office. Emergencies presented will include cardiovascular emergencies, diabetic emergencies, seizures, syncope, hyperthermia and hypothermia shock, musculoskeletal emergencies, and poisoning. Upon completion, students should be able to recognize emergency situations and take appropriate actions.
MAT 211  Clinical Procedures II for the Medical Assistant  2-1-3  
Prerequisite: A grade of "C" or higher in MAT 111 and MAT 125.
This course includes instruction in vital signs and special examination procedures. Emphasis is placed on interviewing skills, appropriate triage and preparing patients for diagnostic procedures. Upon completion, students should be able to assist with special procedures.

MAT 215  Laboratory Procedures II for the Medical Assistant  2-1-3  
Prerequisite: A grade of "C" or higher in MAT 125.
This course instructs the student in the fundamental theory and lab application for the medical office. Microbiology, urinalysis, serology, blood chemistry, and venipuncture theory as well as venipuncture collection procedures are discussed and performed. Upon completion, students should be able to perform basic lab tests/skills on course topics.

MAT 216  Pharmacology for the Medical Office  3-1-4  
Prerequisite: A grade of "C" or higher in MAT 211.
This course teaches the commonly administered drugs used in the medical field including their classifications, actions, indications, contraindications, and side effects on the body. Correct demonstration of drug calculation, preparation, administration, and documentation are also taught. Upon completion, students should be able to demonstrate safe drug administration and recognize common medical classifications and their patient implications.

MAT 220  Medical Office Insurance  2-1-3  
In this course emphasis is placed on insurance procedures with advanced diagnostic and procedural coding in the outpatient facility. Study will include correct completion of insurance forms and coding. Upon completion, students should be able to demonstrate proficiency in coding for reimbursements.

MAT 228  Medical Assistant Review Course  1-0-1  
PREREQUISITIE: A grade of "C" or higher in MAT 111, and MAT 211.
This course includes a general review of administrative and clinical functions performed in a medical office. The course will assist the student or graduate in preparing for national credentialing examination.

MAT 229  Medical Assisting Preceptorship  0-3-3  
PREREQUISITIE: A grade of "C" or higher in MAT 111, MAT 211, and MAT 200 and EMS 100.
This course is designed to provide the opportunity to apply clinical, laboratory, and administrative skills in a physician’s office, clinic or outpatient facility. The student will gain experience in applying knowledge learned in the classroom in enhancing competence, in strengthening professional communications and interactions. Upon completion, students should be able to perform as an entry-level Medical Assistant.

MAT 239  Phlebotomy Preceptorship  0-3-3  
PREREQUISITIE: A grade of “C” or higher in MAT 125 and MAT 215 and EMS 100.
This course is designed to provide the opportunity to apply phlebotomy techniques in the physician’s clinic and hospital setting. Emphasis is placed on training individuals to properly collect and handle blood specimens for laboratory testing and to interact with health care personnel, patients, and the general public. Upon completion, students should be prepared for entry-level phlebotomy and to sit for the Phlebotomy Technician Examination.

Music (MUS)

MUS 100  Convocation  1-0-1  
This course (required for music majors/minors each semester) is designed to expose students to a variety of repertory styles and to give students an opportunity to practice individual performance skills. Emphasis is placed on exposure to performances and lectures by guest artists, faculty or students, and on personal performance(s) in class each semester.

MUS 101  Music Appreciation  3-0-3  
This course is designed for non-music majors and requires no previous musical experience. It is a survey course that incorporates several modes of instruction including lecture, guided listening, and similar experiences involving music. The course will cover a minimum of three (3) stylistic periods, provide a multi-cultural perspective, and include both vocal and instrumental genres. Upon completion, students should be able to demonstrate a knowledge of music fundamentals, the aesthetic/stylistic characteristics of historical periods, and an aural perception of style and structure in music.

*MUS 103  Survey of Popular Music  1/2-0-1/2  
This course provides a study of the origins, development and existing styles of popular music. Topics include ragtime, jazz, rhythm and blues, rock, country and western, folk and world music. Upon completion, students should be able to demonstrate a knowledge, understanding and an aural perception of the stylistic characteristics of popular music.

*MUS 104  Jazz: An Introduction and History  1/2-0-1/2  
This course provides a study of the origins, development and existing styles of jazz. Topics include the blues, piano styles, Dixieland, swing, bebop, third stream, cool, free jazz and jazz/rock fusion. Upon completion, students should be able to demonstrate a knowledge, understanding and an aural perception of the different style characteristics of jazz music.

MUS 110  Basic Musicianship  3-0-3  
PREREQUISITIE: Permission of the instructor.
This course is designed to provide rudimentary music knowledge and skills for the student with a limited music background. Topics include a study of notation, rhythm, scales, keys, intervals, chords and basic sight singing and ear training skills. Upon completion, students should be able to read and understand musical scores and demonstrate basic sight singing and ear training skills for rhythm, melody and harmony.

MUS 111  Music Theory I  3-0-3  
COREQUISITIE: MUS 113, if ear training lab is a separate course.
This course introduces the student to the diatonic harmonic practices in the Common Practice Period. Topics include fundamental musical materials (rhythm, pitch, scales, intervals, diatonic harmonies) and an introduction to the principles of voice leading and harmonic progression. Upon completion, students should be able to demonstrate a basic competency using diatonic harmony through analysis, writing, sight singing, dictation and keyboard skills.
MUS 112  Music Theory II  3-0-3
PREREQUISITE:  MUS 111
COREQUISITE:  MUS 114, if ear training lab is a separate course.
This course completes the study of diatonic harmonic practices in the Common Practice Period and introduces simple musical forms. Topics include principles of voice leading used in three- and four-part triadic harmony and diatonic seventh chords, non-chord tones, cadences, phrases and periods. Upon completion, students should be able to demonstrate competence using diatonic harmony through analysis, writing, sight singing, dictation and keyboard skills.

MUS 113  Music Theory Lab I  0-2-1
This course provides the practical application of basic musical materials through sight singing; melodic, harmonic and rhythm dictation; and keyboard harmony. Topics include intervals, simple triads, diatonic stepwise melodies, basic rhymic patterns in simple and compound meter and four-part triadic progressions in root position. Upon completion, students should be able to write, sing and play intervals, scales, basic rhythm patterns, diatonic stepwise melodies, simple triads and short four-part progressions in root position.

MUS 114  Music Theory Lab II  0-2-1
PREREQUISITE:  MUS 113.
COREQUISITE:  MUS 112, if ear training lab is a separate course.
This course continues the practical application of diatonic musical materials through sight singing; melodic, harmonic and rhythm dictation; and keyboard harmony. Topics include intervals, scales, diatonic melodies with triadic arpeggations, more complex rhymic patterns in simple and compound meter and four-part diatonic progressions in all inversions. Upon completion, students should be able to write, sing and play all intervals, rhythmic patterns employing syncopations and beat divisions, diatonic melodies and four-part diatonic progressions.

+MUS 115  Fundamentals of Music  3-0-3
This course is designed to teach the basic fundamentals of music and develop usable musical skills for the classroom teacher. Topics include rhythmic notation, simple and compound meters, pitch notation, correct singing techniques, phrases, keyboard awareness, key signatures, scales, intervals and harmony using I, IV, and V with a chordal instrument. Upon completion, students should be able to sing a song, harmonize a simple tune, demonstrate rhythmic patterns and identify musical concepts through written documentation.

+MUS 161  Diction for Singers  2/3-0-2/3
PREREQUISITE:  Permission of the instructor.
This course introduces the basic rules of diction in Italian, French and German for singers. Emphasis is placed on the use of the International Phonetic Alphabet. Upon completion, students should be able to sing art songs in Italian, French and German with correct diction.

+MUS 170  Introduction to Church Music  2/3-0-2/3
This course provides an overview of church music as a career choice, and includes the organization and operation of a graded church choir program. Topics include an introduction to conducting, rehearsal techniques, administrative skills, and may include a supervised practicum field experience. Upon completion, students should be able to select, prepare, teach and conduct a simple anthem for a graded church choir and demonstrate a knowledge of church music administration through written documentation.

+MUS 171  Service Playing  1/2-0-1/2
PREREQUISITE:  Permission of the instructor.
This course provides individual or group instruction in skills relevant to playing a keyboard instrument in religious services. Topics include hymn playing, accompanying soloists and choirs, selecting appropriate music for the different denominational services and improvisation. Upon completion, students should be able to demonstrate a knowledge and understanding of the role of the church pianist or organist through written documentation and by performing that role for a religious service.

+MUS 180  Piano Pedagogy Seminar  1-0-1
PREREQUISITE:  Permission of the instructor.
This course is a seminar, workshop or master class conducted by guest artists or faculty for piano teachers and students. Emphasis is placed on piano pedagogy topics such as teaching methods, piano literature and performance practice. Upon completion, students should be able to demonstrate improved knowledge and skills related to piano pedagogy through written documentation and/or performance.

+MUS 201  Survey of Music Literature I  3-0-3
PREREQUISITE:  Permission of the instructor.
This is the first of a two-course sequence which surveys instrumental and vocal music to acquaint the student with musical compositions, composers and styles from ancient times through the Baroque. Emphasis is placed on the development of analytical listening skills. Upon completion, students should be able to recognize the music, identify the major composers and describe the styles of the various musical periods.

+MUS 202  Survey of Music Literature II  3-0-3
PREREQUISITE:  Permission of the instructor.
This is the second of a two-course sequence which surveys instrumental and vocal music to acquaint the student with musical compositions, composers and styles from the Classical Period to the present. Emphasis is placed on the development of analytical listening skills. Upon completion, students should be able to recognize the music, identify the major composers and describe the styles of the various musical periods.

+MUS 203  Music History I  3-0-3
This course provides a study of the development of music from ancient times through the Baroque Period. Emphasis is placed on period style characteristics, representative composers and their works, and socio-cultural influences. Upon completion, students should be able to demonstrate knowledge, understanding and an aural perception of period style characteristics, forms, composers and representative works.

+MUS 204  Music History II  3-0-3
This course provides a study of the development of music from the Classical Period to the present. Emphasis is placed on period style characteristics, representative composers and their works, and socio-cultural influences. Upon completion, students should be able to demonstrate knowledge, understanding and an aural perception of period style characteristics, forms, composers and representative works.
MUS 211  Music Theory III  3-0-3
PREREQUISITE: MUS 112.
COREQUISITE: MUS 213, if ear training lab is a separate course.
This course introduces the student to the chromatic harmonic practices in the Common Practice Period. Topics include secondary functions, modulatory techniques, and binary and ternary forms. Upon completion, students should be able to demonstrate competence using chromatic harmony through analysis, writing, sight singing, dictation and keyboard skills.

MUS 212  Music Theory IV  3-0-3
PREREQUISITE: MUS 211.
COREQUISITE: MUS 214, if ear training lab is a separate course.
This course completes the study of chromatic harmonic practices in the Common Practice Period and introduces the student to twentieth-century practices. Topics include the Neapolitan and augmented sixth chords, sonata form, late nineteenth-century tonal harmony and twentieth-century practices and forms. Upon completion, students should be able to demonstrate competence using chromatic harmony and basic twentieth century techniques through analysis, writing, sight singing, dictation and keyboard skills.

MUS 213  Music Theory Lab III  0-2-1
PREREQUISITE: MUS 114.
COREQUISITE: MUS 211, if ear training lab is a separate course.
This course provides the practical application of chromatic musical materials through sight singing; melodic, harmonic and rhythmic dictation; and keyboard harmony. Topics include melodies with simple modulations, complex rhythms in simple and compound meter, and secondary function chords. Upon completion, students should be able to write, sing and play modulating melodies, rhythmic patterns with beat subdivisions and four-part chromatic harmony.

MUS 214  Music Theory Lab IV  0-2-1
PREREQUISITE: MUS 213.
COREQUISITE: MUS 212, if ear training lab is a separate course.
This course provides the practical application of chromatic musical materials and simple twentieth century practices through sight singing; melodic, harmonic and rhythmic dictation; and keyboard harmony. Topics include chromatic and atonal melodies; complex rhythmic patterns in simple, compound and asymmetric meters; chromatic chords and twentieth-century harmony. Upon completion, students should be able to write, sing and play chromatic and atonal melodies, complex rhythms and meters, four-part chromatic harmony and simple twentieth-century chord structures.

+MUS 215  Composition I  1/2-0-1/2
PREREQUISITE: MUS 112 or permission of the instructor.
This course introduces the basic techniques and applications of musical composition. Emphasis is placed on creativity and original thought processes in music. Upon completion, students should be able to create an original musical composition.

+MUS 216  Composition II  1/2-0-1/2
PREREQUISITE: MUS 215.
This course provides more advanced instruction in musical composition techniques. Emphasis is placed on musical thought processes which result in musical composition. Upon completion, students should be able to create, notate correctly and stage performances of original musical compositions.

+MUS 217  Jazz Improvisation  1-3/0/1-3
PREREQUISITE: Permission of the instructor.
This course is designed to prepare the student with the theoretical background and improvisational techniques utilized in jazz performance. Emphasis is placed on the understanding of chord structures, chord progressions, scale structures and melodic design. Upon completion, students should be able to perform an improvisational solo with a jazz ensemble.

+MUS 251  Introduction to Conducting  3-0-3
PREREQUISITE: MUS 110 or permission of the instructor.
This course introduces the fundamentals of conducting choral and/or instrumental ensembles. Topics include a study of simple and compound meters, score reading and techniques for conducting effective rehearsals. Upon completion, students should be able to prepare and conduct a choral and/or instrumental score in a rehearsal or performance setting.

+MUS 270  Organization of the Church Music Program  2/3-0-2/3
PREREQUISITE: Permission of the instructor.
This course is designed to explore administrative models of a comprehensive church music program. Topics include leadership, administrative structure, music personnel, facilities, equipment, vestments, music library, budgeting, planning, vocal and instrumental ensembles and scheduling for a music program. Upon completion, students should be able to demonstrate how to plan, coordinate and administer a comprehensive church music program.

+MUS 271  Church Music Literature  2/3-0-2/3
PREREQUISITE: MUS 170 or permission of the instructor.
This course provides an historic survey of traditional church music from the 17th century to the present and introduces contemporary Christian styles. Topics include criteria for choosing appropriate music for graded church choirs at easy, medium and advanced levels of difficulty, and a survey of publishing resources and cataloging systems. Upon completion, students should be able to demonstrate a knowledge and understanding of church music literature.

+MUS 272  The Children's Choir  2/3-0-2/3
PREREQUISITE: Permission of the instructor.
This course is designed to provide techniques for working with the child's voice in a choral setting. Topics include working with children's voices, rehearsal techniques, selecting literature, vestments and organizing a graded choir program. Upon completion, students should be able to demonstrate how to plan, coordinate and administer a graded choir program in a church.

+MUS 273  Literature for the Church Soloist  2/3-0-2/3
PREREQUISITE: Permission of the instructor.
This course is designed to acquaint the singer with literature appropriate for use in services of worship. Topics include voice classification, study of the literature for general and seasonal use, and resources for publications and materials. Upon completion, students should be able to demonstrate a knowledge and understanding of repertoire suitable for use throughout the church year, sources of solo literature and vocal classification.
+MUS 279  Church Music Practicum 0-2-1
PREREQUISITE: Permission of the instructor.
This course is designed to provide supervised experience in various aspects of church music through directed study, practice, observation, and other supervised experiences. Emphasis is placed on designing, implementing, and documenting a practicum project related to a particular area of church music. Upon completion, students should be able to produce documentation that demonstrates the scope of the project.

+MUS 290  Introduction to Commercial Music 2/3-0-2/3
This course provides an introduction to the commercial music industry and the types of careers in commercial music. Topics include music publishing, recording contracts, agents and managers, copyrights, unions, music companies, and dealers. Upon completion, students should be able to demonstrate a basic knowledge and understanding of the various components of the commercial music industry and the various career options.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Music Ensemble (MUL)

Class Performance Instruction 0-2-1
Group instruction is available in voice, piano, strings, woodwinds, brass, percussion, and fretted instruments for students with little or no previous training. Emphasis is placed on the rudiments of music, basic performance technique and general musicianship skills. Upon completion of one or a sequence of courses, students should be able to demonstrate a basic proficiency in singing or playing and a knowledge of music fundamentals.

MUL 101-02; 201-02  CLASS PIANO I, II, III, IV
MUL 111-12; 211-12  CLASS VOICE I, II, III, IV
MUL 121-22; 221-22  CLASS STRINGS I, II, III, IV
MUL 131-32; 231-32  CLASS WOODWINDS I, II, III, IV
MUL 151-52; 251-52  CLASS PERCUSSION I, II, III, IV
MUL 161-62; 261-62  CLASS FRETTED INSTR. I, II, III, IV

MUL 170-71, 270-71  Musical Workshop I, II, III, IV 0-2-1
PREREQUISITE: Permission of the instructor.
This course is a seminar clinic in advanced rehearsal/performance techniques. Emphasis is placed on intensive rehearsal techniques required for advanced or specialized performance groups. Upon completion, students should be able to effectively participate in performances presented by this type of ensemble.

MUL 172-73, 272-73  Musical Theatre Workshop I, II, III, IV 0-4-2
PREREQUISITE: Permission of the instructor.
This course includes the study of musical theater history, styles, performance and technical production. Emphasis is placed on the supervised study, preparation, production, and performances of scenes or complete works of musical theater. Upon completion, students should be able to effectively participate in a public presentation of the prepared scenes or work in an assigned performance or technical role.

Music Ensembles 0-2-1
PREREQUISITE: Permission of the instructor.
This course provides an opportunity for students to participate in a performing ensemble. Emphasis is placed on rehearsing and performing literature appropriate to the mission and goals of the group. Upon completion, students should be able to effectively participate in performances presented by the ensemble.

MUL 180-81; 280-81  CHORUS I, II, III, IV
MUL 182-83; 282-83  VOCAL ENSEMBLE I, II, III, IV
MUL 184-85; 284-85  JAZZ/SHOW CHOIR I, II, III, IV
MUL 190-91; 290-91  CONCERT BAND I, II, III, IV
MUL 192-93-292-93  INSTRUMENTAL ENSEMBLE I, II, III, IV
MUL 196-97; 296-97  JAZZ/SHOW BAND I, II, III, IV

Music Performance (MUP)

Individual Performance Instruction 0-.5-1
PREREQUISITE: Permission of the instructor.
Individual performance instruction is available in keyboard instruments, voice, strings, woodwinds, brass, percussion, and fretted instruments. Emphasis is placed on developing technique, repertoire, and performance skills commensurate with the student's educational goals. Students are required to practice a minimum of five hours per week for each credit hour. Upon completion, students should be able to effectively perform assigned repertoire and technical studies in an appropriate performance evaluation setting.

MUP 101-02; 201-02  PRIVATE PIANO I, II, III, IV
MUP 111-12; 211-12  PRIVATE VOICE I, II, III, IV
MUP 133-34; 233-34  PRIVATE GUITAR I, II, III, IV
MUP 141-42; 241-42  PRIVATE FLUTE I, II, III, IV
MUP 143-44; 243-44  PRIVATE CLARINET I, II, III, IV
MUP 145-46; 245-46  PRIVATE SAXOPHONE I, II, III, IV
MUP 151-52; 251-52  PRIVATE OBOE I, II, III, IV
MUP 153-54; 253-54  PRIVATE BASSOON I, II, III, IV
MUP 161-62; 261-62  PRIVATE TRUMPET I, II, III, IV
MUP 163-64; 263-64  PRIVATE FRENCH HORN I, II, III, IV
MUP 165-66; 265-66  PRIVATE CLARINET I, II, III, IV
MUP 171-72; 271-72  PRIVATE TROMBONE I, II, III, IV
MUP 173-74; 273-74  PRIVATE EUPHONIUM I, II, III, IV
MUP 175-76; 275-76  PRIVATE Tuba I, II, III, IV
MUP 181-82; 281-82  PRIVATE PERCUSSION I, II, III, IV
MUP Courses are limited to music majors or minors only.

Nurse Assistant (NAS)*

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

NAS 100  Long Term Care Nursing Assistant 3-3C-4
This course fulfills the eighty (80) hour OBRA requirements for training of long-term care nursing assistants in preparation for certification through competency evaluation. Emphasis is placed on the development of the knowledge, attitudes, and skills required of the long-term care nursing assistant. Upon completion, students should demonstrate satisfactory performance on written examinations and clinical skills.

SKILLS LABORATORY/CLINICAL PRACTICE (S OR C) - Three hours of skills laboratory or clinical practice under the supervision of an instructor.

Nursing (NUR)

This information reflects the new statewide curriculum development by ACCS February 2016 and approved by the ADN program’s accrediting body August 2016. Every effort has been made to assure accuracy. Please contact your nursing advisor for any further information.
NUR 112 Fundamental Concepts of Nursing  4-2S-1C  
PREREQUISITES: Per Nursing Department Policies.  
CO-REQUISITES: MTH 100 (or higher), BIO 201  
This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: healthcare delivery systems, professionalism, health promotion, psychosocial well-being, functional ability, gas exchange, safety, pharmacology, and coordinator/manager of care.

NUR 113 Nursing Concepts  4-1S-3C  
PREREQUISITES: Per Nursing Department Policies, NUR 112, MTH 100 (or higher), BIO 201  
CO-REQUISITES: ENG 101, PSY 210, BIO 202  
This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: coordinator/manager of care, perfusion, oxygenation, infection, inflammation, tissue integrity, nutrition, elimination, mobility/immobility, cellular regulation, acid/bases balance, and fluid/electrolyte balance.

NUR 114 Nursing Concepts II  5-0-3C  
PREREQUISITES: Per Nursing Department Policies, NUR 112, NUR 113, MTH 100 (or higher), BIO 201, BIO 202, ENG 101, PSY 210  
CO-REQUISITES: NUR 115, SPH 106 or 107  
This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: coordinator/manager of care, sexuality, reproduction and childbearing, infection, inflammation, sensory perception, perfusion, cellular regulation, mood disorders and affect, renal fluid/electrolyte balance, and medical emergencies.

NUR 115 Evidence Based Clinical Reasoning  1-0-1C  
PREREQUISITES: Per Nursing Department Policies, NUR 112, NUR 113, MTH 100 (or higher), BIO 201, BIO 202, ENG 101, PSY 210  
CO-REQUISITES: NUR 114, SPH 106 or 107  
This course provides students with opportunities to collaborate with various members of the health care team in a family and community context. Students utilize clinical reasoning to assimilate concepts within the individual, health, and nursing domains.

200 level courses are only for those students admitted to the ADN Program.

NUR 209 Concepts for Healthcare Transition Students  6-1S-3C  
PREREQUISITES: MTH 100 or higher level math, BIO 201, 202, ENG 101, PSY 210, SPH 106 or 107  
This course focuses on application of nursing concepts to assist health care professionals to transition into the role of the registered nurse. Emphasis in this course is placed on evidenced based clinical decision making and nursing concepts provided in a family and community context for a variety of health alterations across the lifespan.

*NAvailability of this class is dependent upon sufficient demand. Please contact a nursing advisor for more information.*

NUR 211 Advanced Nursing Concepts  4-0-3C  
PREREQUISITES: Successful completion of first, second, and third, term of the ADN program. (For Healthcare Transition Students: Successful completion of NUR 209 as required per track)  
CO-REQUISITES: BIO 220  
This course provides opportunities for students to integrate advance nursing care concepts within a family and community context. Content includes but is not limited to: manager of care for advanced concepts in safety, fluid/electrolyte balance, cellular regulation, gas exchange, psychosocial well-being, growth and development, perfusion, and medical emergencies.

NUR 221 Advanced Evidence Based Clinical Reasoning  3-0-4C  
PREREQUISITES: Successful completion of first, second, third, and fourth terms of the ADN program.  
CO-REQUISITES: Humanities elective  
This course provides students with opportunities to demonstrate graduate competencies through didactic and preceptorship experiences necessary to transition to the profession of nursing. Content in nursing and health care domains includes management of care, professionalism, and healthcare delivery systems.

Office Administration (OAD)

*Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.*

OAD 100 Introduction to Keyboarding and Technology  3-0-3  
This course is designed to enable the student to use touch keyboarding skills for efficient use of the microcomputer through classroom instruction and lab exercises. Upon completion, the student should be able to demonstrate proper keyboarding techniques and basic computer skills.

OAD 101 Beginning Keyboarding  3-0-3  
PREREQUISITE: OAD 100 or high school keyboarding  
This course is designed to enable the student to use the touch method of keyboarding through classroom instruction and outside lab. Emphasis is on speed and accuracy in keying alphabetic, symbolic, and numeric information using a keyboard. Upon completion, the student should be able to use a keyboard to produce business documents such as memos and letters, reports, tables, and outlines from unarranged rough draft to acceptable format. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of business documents. Spring semester only.

OAD 103 Intermediate Keyboarding  3-0-3  
PREREQUISITE: OAD 101 or permission of the instructor  
This course is designed to assist the student in increasing speed and accuracy using the touch method of keyboarding through classroom instruction and lab exercises. Emphasis is on the production of business documents such as memos and letters, reports, tables, and outlines from unarranged rough draft to acceptable format. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of business documents. Spring semester only.
OAD 104  Advanced Keyboarding  3-0-3
PREREQUISITE: OAD 103
This course is designed to assist the student in continuing to develop speed and accuracy using the touch method of keyboarding through classroom instruction and lab exercises. Emphasis is on the production of business documents using decision-making skills. Upon completion, the student should be able to demonstrate proficiency and an acceptable rate of speed and accuracy, as defined by the course syllabus, in the production of high-quality business documents. Summer semester only.

OAD 110  Computer Navigation  3-0-3
This course is designed to introduce the student to the MS Windows® environment through classroom instruction. Emphasis is on Windows as a graphical user interface and includes operations and applications that use the windows environment. Upon completion, the student should be able to demonstrate proficiency in the operation and management of hardware and software as defined by the course syllabus.

OAD 125  Word Processing  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course is designed to provide the student with basic word processing skills through classroom instruction and outside lab. Emphasis is on the utilization of software features to create, edit, and print common office documents. Upon completion, the student should be able to demonstrate the ability to use industry-standard software to generate appropriately formatted, accurate, and attractive business documents such as memoranda, letters, and reports. Fall and Spring semesters only.

OAD 126  Advanced Word Processing  3-0-3
PREREQUISITE: OAD 125
This course is designed to increase student proficiency in using the advanced word processing functions. Emphasis is on the use of industry-standard software to maximize productivity. Upon completion, the student should be able to demonstrate the ability to use industry-standard software to generate complex documents such as forms, newsletters, and multi-page documents. This course is offered only in the summer semester.

OAD 130  Electronic Calculations  3-0-3
This course is designed to give students a job-level competency in using the ten-key touch method and develop the student’s ability to solve common business problems with an electronic display-printing calculator. Emphasis is on basic mathematical functions in a business context. Upon completion, students will be able to perform basic electronic calculating at an acceptable rate of speed and accuracy. This course is offered only in the summer semester.

OAD 131  Business English  3-0-3
This course is designed to develop the student’s ability to use proper English. Emphasis is on grammar, spelling, vocabulary, punctuation, word usage, word division, and proofreading. Upon completion, the student should be able to communicate effectively. Fall semester only.

OAD 133  Business Communications  3-0-3
PREREQUISITE: ENG 101 or permission of the instructor
This course is designed to provide the student with skills necessary to communicate effectively. Emphasis is on the application of communication principles to produce clear, correct, logically-organized business communications. Upon completion, the student should be able to demonstrate effective communication techniques in written, oral, and nonverbal communications. Fall and Spring semester only.

OAD 134  Career and Professional Development  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course is designed to assist the student in preparing for employment. Emphasis is on developing resumes, improving interview techniques, participating in mock interviews, setting goals, conducting job searches, and improving personal and professional image. Upon completion, the student will be able to demonstrate confidence in seeking employment. Fall semester only.

OAD 135  Financial Record Keeping  3-0-3
This course is designed to provide the student with an understanding of the accounting concepts, principles, and terminology. Emphasis is on the accounting cycle and equation as they relate to different types of business ownership. Upon completion, the student should be able to demonstrate accounting procedures used in a proprietorship, partnership, and corporation. Fall semester only.

OAD 137  Computerized Financial Record Keeping  3-0-3
PREREQUISITE: OAD 135
This course is designed to provide the student with skill in using the microcomputer to enter financial data through classroom instruction and outside lab. Emphasis is on the use of appropriate software in the preparation of journals, financial statements, and selected payroll records. Upon completion, the student will be able to demonstrate the ability to use a microcomputer system to record financial data. Fall semester only.

OAD 138  Records/Information Management  3-0-3
This course is designed to give the student knowledge about managing office records and information. Emphasis is on basic filing procedures, methods, systems, supplies, equipment, and modern technology used in the creation, protection, and disposition of records stored in a variety of forms. Upon completion, the student should be able to perform basic filing procedures. Spring semester only.

OAD 200  Machine Transcription  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course is designed to develop marketable skills in transcribing various forms of dictated material through classroom instruction. Emphasis is on the use of microcomputers and a commercial word processing package. Upon completion, the student should be able to accurately transcribe documents from dictated recordings. This course is offered only in the summer semester.

OAD 202  Legal Transcription  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course is designed to familiarize students with legal terms and provide transcription skill development in the production of legal correspondence, forms, and court documents through classroom instruction and lab exercises. Emphasis is on transcribing error-free legal documents using transcription equipment. Upon completion, students should be able to demonstrate the ability to accurately transcribe legal documents that are appropriately formatted. This course is offered only in the summer semester.
OAD 203   Legal Office Procedures  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course is designed to provide an awareness of the responsibilities and opportunities of professional support personnel in a legal environment through classroom instruction and lab exercises. Emphasis is on legal terminology, the production of appropriate forms and reports, and the importance of office procedures and practices. Upon completion, the student should be able to perform office support tasks required for employment in a legal environment.

OAD 211   Medical Terminology  3-0-3
This course is designed to familiarize the student with medical terminology. Emphasis is on the spelling, definition, pronunciation, and usage of medical terms. Upon completion, the student should be able to communicate effectively using medical terminology.

OAD 212   Medical Transcription  3-0-3
PREREQUISITE: OAD 211 or permission of the instructor
This course is designed to orient students to standard medical reports, correspondence, and related documents transcribed in a medical environment through classroom instruction. Emphasis is on transcribing medical records from dictated recordings. Learn/maintain standards of ethical/professional conduct. Upon completion, the student should be able to accurately transcribe medical documents from dictated recordings. This course is offered only in the summer semester.

OAD 214   Medical Office Procedures  3-0-3
PREREQUISITE: OAD 101 or permission of the instructor
This course focuses on the responsibilities of professional support personnel in a medical environment. Emphasis is on medical terms, the production of appropriate forms and reports, and office procedures and practices. Upon completion, the student should be able to perform office support tasks required for employment in a medical environment.

OAD 215   Health Information Management  3-0-3
PREREQUISITE: OAD 211
This course is designed to promote an understanding of the structure, analysis, and management of medical records. Emphasis is on managing medical and insurance records, coding of diseases, operations and procedures, and the legal aspects of medical records. Upon completion, the student should be able to maintain medical records efficiently.

OAD 216   Advanced Health Information Management  3-0-3
PREREQUISITE: OAD 215
This course is designed to promote an advanced understanding of the structure, analysis, and management of medical and insurance records. Emphasis is on managing medical and insurance records, coding of diseases, operations and procedures, and the legal aspects of medical records. Upon completion, the student should be able to maintain medical records efficiently.

OAD 217   Office Management  3-0-3
This course is designed to develop skills necessary for supervision of office functions. Emphasis is on issues relating to the combination of people and technology in achieving the goals of business in a culturally diverse workplace, including the importance of office organization, teamwork, workplace ethics, office politics, and conflict-resolution skills. Upon completion, the student should be able to demonstrate effective supervision in the modern office. Spring semester only.

OAD 218   Office Procedures  3-0-3
PREREQUISITE: OAD 101
This course is designed to develop an awareness of the responsibilities and opportunities of the office professional through classroom instruction. Emphasis is on current operating functions, practices and procedures, work habits, attitudes, oral and written communications, and professionalism. Upon completion, the student should be able to demonstrate the ability to effectively function in an office support role. Spring semester only.

OAD 231   Office Applications  3-0-3
This course is designed to provide the student with a foundation in the use of computerized equipment and application software as tools in the performance of a variety of office tasks through classroom instruction and lab exercises. Emphasis is on the role of the office professional in the selection and application of appropriate technology to the specific task or combination of tasks. Upon completion, the student should be able to demonstrate proficiency in the selection of appropriate computerized tools to complete designated tasks.

OAD 233   Trends in Office Technology  3-0-3
This course is designed to research current trends in office technology. Emphasis is on advances in technology relevant to the office environment such as electronic mail, multimedia interaction, presentation hardware and software, and Internet use. Upon completion, the student should be able to demonstrate an awareness of current technological applications for the modern office. Spring semester only.

OAD 241   Office CO-OP  0-3-3
PREREQUISITE: OAD 134 Career and Professional Development
This course is designed to provide the student with an opportunity to work in an office environment. Emphasis is on the integration of classroom learning with on-the-job experiences that relate meaningfully to office careers. Upon completion, the student should be able to apply knowledge and skills gained in the classroom to an actual work situation.

OAD 242   Office Internship  0-3-3
PREREQUISITE: Completion of at least 50% of OAD course work or permission of the instructor.
This course is designed to provide the student with the opportunity to work in an office environment. Emphasis is on the efficient and accurate performance of job tasks. Upon completion, the student should be able to demonstrate successful performance of skills required in an office support position.

OAD 247   Special Projects  3-0-3
This course is designed to provide the student with an opportunity for the expansion of knowledge in an area of special interest under the direct supervision of instructor. Emphasis is on the student’s use of modern technology to study, research, or improve skills in a specialized office support area. Upon completion, the student should be able to demonstrate enhanced knowledge and skill gained through an individualized project.
Orientation (ORI)

ORI 105 Student Success for Developmental Students 3-0-3
This course is designed to orient students to the college experience by providing them with tools needed for academic and personal success. Topics include: developing an internal focus of control, time management and organizational skills, critical and creative thinking strategies, personal and professional maturity, and effective study skills for college and beyond.

ORI 107 Student Success 1-0-1
This course is designed to provide students with information to improve their success as students in a college environment. Specific topics include stress management, time management, goal setting, improving listening and note taking skills, identification of optimum learning styles, reading skills, study skills, problem solving and decision making, test taking strategies, and financial management.

Philosophy (PHL)

+PHL 106 Introduction to Philosophy 3-0-3
This course is an introduction to the basic concepts of philosophy. The literary and conceptual approach of the course is balanced with emphasis on approaches to ethical decision making. The student should have an understanding of major philosophical ideas in a historical survey from the early Greeks to the modern era.

+PHL 206 Ethics and Society 3-0-3
This course involves the study of ethical issues which confront individuals in the course of their daily lives. The focus is on the fundamental questions of right and wrong, of human rights, and of conflicting obligations. The student should be able to understand and be prepared to make decisions in life regarding ethical issues.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Physical Science (PHS)

PHS 111 Physical Science I 3-1-4
This course provides the non-technical student with an introduction to the basic principles of geology, oceanography, meteorology, and astronomy. Laboratory is required.

PHS 112 Physical Science II 3-1-4
PREREQUISITE: MTH 098 or math placement score. This course provides the non-technical student with an introduction to the basic principles of chemistry and physics. Laboratory is required. NOTE: PHS 112 may be taken before PHS 111.

+PHS 120 Environmental Science 3-1-4
This course is an interdisciplinary course designed to give the non-science major an introductory survey of the environment. The environment will be studied with an emphasis on topics such as air, soil, water, wild life, forestry, and solid waste pollution. Laboratory is required and will emphasize field studies and experimentation.

+Availability of this course is dependent upon sufficient demand. See advisor for further information.

Physics (PHY)

+PHY 115 Technical Physics 3-1-4
PREREQUISITE: MTH 100. Technical physics is an algebra-based physics course designed to utilize modular concepts to include motion, forces, torque, work energy, heat, wave/sound, light and electricity. Results of physics education research and physics applications in the workplace are used to improve the student’s understanding of physics in technical areas. Upon completion, students will be able to define motion and describe specific module concepts; utilize microcomputers to generate motion diagrams; understand the nature of contact forces and distinguish passive forces; work cooperatively to set-up laboratory exercises; and demonstrate applications of module-specific concepts.

+PHY 120 Introduction to Physics 3-1-4
PREREQUISITE: MTH 098. This course provides an introduction to general physics for non-science majors. Topics include fundamentals of mechanics, properties of matter, heat and temperature, electricity and magnetism, optics and modern physics. Laboratory is required. Offered upon sufficient enrollment.

PHY 201 General Physics I - Trig Based 3-1-4
PREREQUISITE: MTH 113 or equivalent, or permission of the instructor. This course is designed to cover general physics at a level that assumes previous exposure to college algebra and basic trigonometry. Specific topics include mechanics, properties of matter and energy, thermodynamics, and periodic motion. A laboratory is required.

PHY 202 General Physics II - Trig Based 3-1-4
PREREQUISITE: PHY 201. This course is designed to cover general physics using college algebra and basic trigonometry. Specific topics include wave motion, sound, light optics, electrostatics, circuits, magnetism, and modern physics. Laboratory is required.

+PHY 205 Recitation in Physics I 1-1/0/1
This course will meet one hour weekly purely for problem solving. This course should be taken with PHY 201.

+PHY 206 Recitation in Physics II 1-1/0/1
This course will meet one hour weekly purely for problem solving. This course should be taken with PHY 202.

PHY 213 General Physics with Calculus I 3-1-4
PREREQUISITE: MTH 125 or permission of the instructor. This course provides a calculus-based treatment of the principle subdivisions of classical physics: mechanics and energy including Thermo-dynamics. Laboratory is required.

+PHY 214 General Physics with Calculus II 3-1-4
PREREQUISITE: PHY 213. This course provides a calculus-based study in classical physics. Topics include simple harmonic motion, waves, sound, light, optics, electricity and magnetism. Laboratory is required.

+PHY 215 Recitation in Physics with Calculus I 1-1/0/1
This course will meet one hour weekly purely for problem solving. This course should be taken with PHY 213.

+PHY 216 Recitation in Physics with Calculus II 1.1/0/1
This course will meet one hour weekly purely for problem solving. This course should be taken with PHY 214.
+PHY 299 Directed Studies in Physics 1/2-0-1/2
PREREQUISITE: as required by program.
This course is designed for independent study in specific areas of mathematics chosen by the student in consultation with faculty and carried out under faculty supervision.

+Availability of this course is dependent upon sufficient demand. See advisor for further information.

Political Science (POL)

Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

POL 211 American National Government 3-0-3
This course surveys the background, constitutional principles, organization, and operation of the American political system. Topics include the U. S. Constitution, federalism, civil liberties, civil rights, political parties, interest groups, political campaigns, voting behavior, elections, the presidency, bureaucracy, Congress, and the justice system. Upon completion, students should be able to identify and explain relationships among the basic elements of American government and function as more informed participants of the American political system.

POL 220 State and Local Government 3-0-3
This course is a study of the forms of organization, functions, institutions, and operation of American state and local governments. Emphasis is placed on the variety of forms and functions of state and local governments, with particular attention to those in Alabama and to the interactions between state and local government and the national government. Upon completion, students should be able to identify elements of and explain relationships among the state, local, and national governments of the U.S., and function as more informed participants of state and local political systems.

POL 299 Directed Studies 0-0-1/3*
PREREQUISITE: Recommendation of the instructor and approval of Department Chairperson.
This course provides opportunities for non-traditional exploration of political science topics. Emphasis is placed on knowledge and experience students gain through learning activities such as guided reading, internships, and programs combining personal experience with related coursework. Upon completion, students should be able to prepare papers, presentations, or other projects on approved topics related to their individual experiences.

*Credit to be determined from appropriate contact-to-credit ratio formula.

Psychology (PSY)

PSY 200 General Psychology 3-0-3
This course is a survey of behavior with emphasis upon psychological processes. This course includes the biological bases for behavior, thinking, emotion, motivation, and the nature and development of personality.

+PSY 207 Psychology of Adjustment 3-0-3
This course provides an understanding of the basic principles of mental health and an understanding of the individual modes of behavior.

PSY 210 Human Growth and Development 3-0-3
PREREQUISITE: PSY 200.
This course is the study of the psychological, social, and physical factors that affect human behavior from conception to death.

+PSY 230 Abnormal Psychology 3-0-3
PREREQUISITE: PSY 200.
This course is a survey of abnormal behavior and its social and biological origins. The anxiety related disorders, psychoses, personality disorders and mental deficiencies will be covered.

+PSY 270 Business and Industry Psychology 3-0-3
PREREQUISITE: Permission of the instructor.
This course is a study of interpersonal relations in the working environment, interpersonal communications, and techniques for selection and supervision of personnel.

+PSY 276 Human Relations 3-0-3
PREREQUISITE: Permission of the instructor.
This course focuses on readings, inter- and intrapersonal experiences, individual testing, employer visits and open discussions. Its goal is to assist the student in making a successful transition from classroom to the world of work.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Diagnostic Imaging - Radiography

Associate in Applied Science Degree

RAD 111 Introduction to Radiography 2-0-0-2
Prerequisites: Admission into the program.
This course provides students with an overview of radiography and its role in health care delivery. Topics include the history of radiology, professional organizations, legal and ethical issues, health care delivery systems, introduction to radiation protection, and medical terminology. Upon completion, students will demonstrate foundational knowledge of radiologic science.

RAD 112 Radiography Procedures I 3-1-0-4
Prerequisites: Admission into the program.
This course provides the student with instruction in anatomy and positioning of the chest and thorax, upper and lower extremities, and abdomen. Theory and laboratory exercises will cover radiographic positions and procedures. Upon completion of the course the student will demonstrate knowledge of anatomy and positioning skills, oral communication and critical thinking in both the didactic and laboratory settings.

RAD 113 Patient Care 1-1-0-2
Prerequisites: Admission into the program.
This course provides the student with concepts of patient care and pharmacology and cultural diversity. Emphasis in theory and lab is placed on assessment and considerations of physical and psychological conditions, routine and emergency. Upon completion, students will demonstrate / explain patient care procedures appropriate to routine and emergency situations.
RAD 114 Clinical Education I 0-0-2-2
Prerequisites: Admission to the program.
This course provides the student with the opportunity to correlate instruction with applications in the clinical setting. The student will be under the direct supervision of a qualified practitioner. Emphasis is on clinical orientation, equipment, procedures, and department policies. Upon completion of the course, the student will demonstrate practical applications of specific radiographic procedures identified in RAD 112.

RAD 122 Radiographic Procedures II 3-1-0-4
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114.
This course provides the student with instruction in anatomy and positioning of spine, cranium, body systems and special procedures. Theory and laboratory exercises will cover radiographic positions and procedures with applicable contrast media administration. Upon completion of the course the student will demonstrate knowledge of anatomy and positioning skills, oral communication and critical thinking in both the didactic and laboratory settings.

RAD 124 Clinical Education II 0-0-5-5
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114.
This course provides students with the opportunity to correlate previous instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified practitioner. Practical experience in a clinical setting enables students to apply theory presented thus far and to practice radiographic equipment manipulation, radiographic exposure, routine radiographic positioning, identification, and patient care techniques. Upon completion of the course, students will demonstrate practical applications of radiographic procedures presented in current and previous courses.

RAD 125 Imaging Equipment 3-0-0-3
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114.
This course provides students with knowledge of basic physics and the fundamentals of imaging equipment. Topics include information on x-ray production, beam characteristics, units of measurement, and imaging equipment components. Upon completion, students will be able to identify imaging equipment as well as provide a basic explanation of the principles associated with image production.

RAD 134 Clinical Education III 0-0-5-5
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125.
This course provides students with the opportunity to correlate previous instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified practitioner. Practical experience in a clinical setting enables students to apply theory presented thus far and to practice radiographic equipment manipulation, radiographic exposure, routine radiographic positioning, identification, and patient care techniques. Upon completion of the course, students will demonstrate practical applications of radiographic procedures presented in current and previous courses.

RAD 135 Exposure Principles 2-1-0-3
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125.
This course provides students with the knowledge of factors that govern and influence the production of radiographic images and assuring consistency in the production of quality images. Topics include factors that influence density, contrast and radiographic quality as well as quality assurance, image receptors, intensifying screens, processing procedures, artifacts, and state and federal regulations.

RAD 136 Radiation Protection and Biology 2-0-0-2
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125.
This course provides the student with principles of radiation protection and biology. Topics include radiation protection responsibility of the radiographer to patients, personnel and the public, principles of cellular radiation interaction and factors affecting cell response. Upon completion the student will demonstrate knowledge of radiation protection practices and fundamentals of radiation biology.

RAD 212 Image Evaluation and Pathology 1-1-0-2
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125, RAD 134, RAD 135, RAD 136.
This course provides a basic understanding of the concepts of disease and provides the knowledge to evaluate image quality. Topics include evaluation criteria, anatomy demonstration and image quality with emphasis placed on a body system approach to pathology. Upon completion students will identify radiographic manifestations of disease and the disease process. Students will evaluate images in the classroom, laboratory and clinical settings.

RAD 214 Clinical Education IV 0-0-8-8
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125, RAD 134, RAD 135, RAD 136.
This course provides students with the opportunity to correlate previous instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified practitioner. Practical experience in a clinical setting enables students to apply theory presented thus far and to practice radiographic equipment manipulation, radiographic exposure, routine radiographic positioning, identification, and patient care techniques. Principles of computed tomography and cross-sectional anatomy will be presented. Upon completion of the course, students will demonstrate practical applications of radiographic procedures presented in current and previous courses.

RAD 224 Clinical Education V 0-0-8-8
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125, RAD 134, RAD 135, RAD 136, RAD 212, RAD 214.
This course provides students with the opportunity to correlate previous instruction with applications in the clinical setting. Students will be under the direct supervision of a qualified practitioner. Practical experience in a clinical setting enables students to apply theory presented thus far and to practice radiographic equipment manipulation, radiographic exposure, routine radiographic positioning, identification, and patient care techniques. Principles other imaging modalities will be presented. Upon completion of the course, students will demonstrate practical applications of radiographic procedures presented in current and previous courses.
RAD 227 Review Seminar  2-0-0-2
Prerequisites: Admission to the program. RAD 111, RAD 112, RAD 113, RAD 114, RAD 122, RAD 124, RAD 125, RAD 134, RAD 135, RAD 136, RAD 212, RAD 214.
This course provides a consolidated and intensive review of the basic areas of expertise needed by the entry level technologist. Topics include basic review of all content areas, test taking techniques and job seeking skills. Upon completion the student will be able to pass comprehensive tests of topic covered in the Radiologic Technology Program.

RAD 247 Computed Tomography Physics and Instrumentation  2-0-0-2
Prerequisites: As required by the program.
This course provides the radiographer with knowledge of computed tomography physics and instrumentation. Emphasis is on system operation and components: image processing and display; image quality; and artifacts. Upon completion, students will demonstrate knowledge of basic CT physics and instrumentation.

RAD 249 Procedures in Computed Tomography  3-0-0-3
Prerequisites: As required by the program.
The course provides knowledge of computed tomography imaging procedures. Emphasis is on head, chest, spine and pelvis. Students will also learn advanced patient care concepts associated with CT procedures. Upon completion, students will explain specific CT imaging procedures relative to the head, chest, spine and pelvis.

RAD 250 Advanced Patient Care  3-0-0-3
Prerequisites: As required by the program.
This course will provide the radiographer with concepts of patient care including patient preparation, patient education, assessment and monitoring, IV procedures for contrast agents and medications, pharmacology, emergency care, radiation safety and biological considerations, safety precautions, and general procedural considerations for CT, MRI, Mammography, Cardiovascular Interventional Technology and Diagnostic Medical Sonography.

RAD 251 Advanced Cross-Sectional Anatomy  3-0-0-3
Prerequisites: As required by the program.
This course provides the radiographer with knowledge of anatomy of the human body in cross-section. Topics include advanced sectional anatomy as demonstrated by computed tomography, magnetic resonance, and medical sonography. Upon completion, the student will be able to identify cross sectional anatomy from CT, MRI, and medical sonography.

RAD 263 CT Imaging Procedures  5-0-0-5
Prerequisites: As required by the program.
This course provides knowledge of computed tomography imaging procedures. Emphasis is on head, chest, spine and pelvis. Upon completion, students will demonstrate and/or explain specific CT imaging procedures relative to the head, chest, spine, and pelvis.

RAD 264 CT Physics- Instrumentation & Imaging  5-0-0-5
Prerequisites: As required by the program.
This course will provide the radiographer with knowledge of computed tomography physics and instrumentation to include system operation and components; image processing and display, image quality, and artifacts.

RAD 265 CT Clinical Education  0-0-4-4
Prerequisites: As required by the program.
This course provides the essential clinical experiences for development of skills and competencies of CT imaging procedures, data acquisition, and image processing.

RAD 266 Pathology Correlation for CT/MR  4-0-0-4
Prerequisites: As required by the program.
This course is designed to introduce theories of disease causation and pathophysiologic disorders that compromise health systems. Each disease or trauma process is examined from its description, etiology, associated symptoms, clinical manifestations, and diagnosis with appearance on CT and MR images.

RAD 283 MR Physical Principles  5-0-0-5
Prerequisites: As required by the program.
This course provides knowledge of magnetic resonance physical principles of image formation. Emphasis is on instrumentation, fundamentals, artifacts, and quality control to include sequence parameters and options. Upon completion, students will demonstrate a knowledge of basic MRI physics.

RAD 284 MR Imaging Procedures  5-0-0-5
Prerequisites: As required by the program.
This course provides knowledge of magnetic resonance imaging procedures. Emphasis is on the essential theory and experiences for development of skills and competencies of MR imaging procedures, data acquisition, and processing.

RAD 285 Magnetic Resonance Clinical Education  0-0-4-4
Prerequisites: As required by the program.
This course provides the essential clinical experiences for magnetic resonance imaging. Emphasis is on the development of skills and competencies of MRI imaging procedures, data acquisition, and image processing. Upon completion, students will be able to demonstrate practical application of MRI imaging procedures.

Religion (REL)

REL 100 History of World Religions  3-0-3
This course is designed to acquaint the student with the beliefs and practices of the major contemporary religions of the world. This includes the religions of Africa, the Orient, and the western world. The student should have an understanding of the history and origins of the various religions in the world.

REG 151 Survey of the Old Testament  3-0-3
This course is an introduction to the content of the Old Testament with emphasis on the historical context and contemporary theological and cultural significance of the Old Testament. The student should have an understanding of the significance of the Old Testament writings upon completion of this course.

REL 152 Survey of the New Testament  3-0-3
This course is a survey of the books of the New Testament with special attention focused on the historical and geographical setting. The student should have an understanding of the books of the New Testament and the cultural and historical events associated with these writings.
Salon and Spa Management (SAL)

SAL 133 Salon Management Technology 1-6-3
PREREQUISITE: As required by program.
This course is designed to develop entry-level management skills for the beauty industry. Topics include job-seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon.

SAL 201 Entrepreneurship for Salon/Spa 3-0-3
PREREQUISITE: As required by program.
This course is covers the important issues and critical steps involved in starting a new business from scratch. Topics covered include developing a business plan, creating a successful marketing strategy, setting up the legal basis for business, raising start-up funds, attracting and managing human resources, managing costs, and developing a custom base.

Sociology (SOC)

SOC 200 Introduction to Sociology 3-0-3
This course is an introduction to the vocabulary, concepts, and theory of sociological perspectives of human behavior.

+SOC 208 Introduction to Criminology 3-0-3
This course delves into the nature and extent of crime in the United States, as well criminal delinquent behavior and theories of causation. The study includes criminal personalities, principles of prevention, control, and treatment.

+SOC 209 Juvenile Delinquency 3-0-3
PREREQUISITE: SOC 200.
This course examines the causes of delinquency. It also reviews programs of prevention, and control of juvenile delinquency, as well as the role of the courts.

SOC 210 Social Problems 3-0-3
PREREQUISITE: SOC 200.
This course examines the social and cultural aspects, influences, incidences and characteristics of current social problems in light of sociological theory and research.

SOC 247 Marriage and the Family 3-0-3
PREREQUISITE: SOC 200.
This course is a study of family structures and families in a modern society. It covers preparation for marriage, as well as sociological, psychological, biological, and financial factors relevant to success in marriage and family life.

+SOC 296 Directed Studies in Sociology 1/3-0-1/3
PREREQUISITE: SOC 200.
This course provides students with opportunities to have “hands-on” experience with research methods used in the behavioral sciences or to complete directed readings under faculty supervision.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Spanish (SPA)

SPA 101 Introductory Spanish I 4-0-4
This course provides an introduction to Spanish. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish-speaking areas.

+SPA 102 Introductory Spanish II 4-0-4
PREREQUISITE: SPA 101 or equivalent. This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish-speaking areas.

SPA 201 Intermediate Spanish I 3-0-3
PREREQUISITE: SPA 102 or equivalent. This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

SPA 202 Intermediate Spanish II 3-0-3
PREREQUISITE: SPA 201 or equivalent. This course includes a review and further development of communication skills. Topics include readings of literary, historical, and/or cultural texts.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Speech (SPH)

SPH 107 Fundamentals of Public Speaking 3-0-3
PREREQUISITE: ENG 101 required; ENG 102 recommended. This course explores principles of audience and environment analysis as well as the actual planning, rehearsing and presenting of formal speeches to specific audiences. Historical foundations, communication theories and student performances are emphasized.

+SPH 226 Business and Professional Speech 3-0-3
PREREQUISITE: ENG 101 required; ENG 130 or ENG 102 recommended. This course focuses on the fundamentals of speech applied to business and professional speech, reports, sales talks, conference, interviews, speeches of goodwill, speeches of inspiration and courtesy, and after dinner speeches.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Theater Arts (THR)

+THR 113 Theater Workshop I 2-0-2
This is the first in a six-course sequence which provide practical experience in the production and performance of a dramatic presentation with assignments in scenery, lighting, props, choreography, sound, costumes, make-up, publicity, acting, directing, and other aspects of theater production.

+THR 114 Theater Workshop II 2-0-2
PREREQUISITE: THR 113.
This course is a continuation of THR 113.

+THR 115 Theater Workshop III 2-0-2
PREREQUISITE: THR 114.
This course is a continuation of THR 114.
+THR 120  Theater Appreciation 3-0-3
This course is designed to increase appreciation of contemporary theater. Emphasis is given to the theater as an art form through the study of history and theory of drama and its contributions to modern media. The course examines the roles of playwright, actor, director, designer and technician. Attendance at theater productions may be required.

+THR 126  Introduction to Theater 3-0-3
This course is designed to teach the history of the theater and the principles of drama. It also covers the development of theater production and the study of selected plays as theatrical presentations.

+THR 131  Acting Techniques I 3-0-3
This is the first of a two-course sequence in which the student will focus on the development of the body and voice as the performing instruments in acting. Emphasis is placed on pantomime, improvisation, acting exercises, a building characterizations in short acting scenes.

+THR 132  Acting Techniques II 3-0-3
PREREQUISITE: THR 131.
This course is a continuation of THR 131.

+THR 141  Introduction to Dance in Theater I 1/2-0-1/2
This is the first of a two-course sequence which offers the student an introduction to basic dance movements and the use of dance in dramatic productions.

+THR 142  Introduction to Dance in Theater II 1/2-0-1/2
PREREQUISITE: THR 141.
This course is a continuation of THR 141.

+THR 213  Theater Workshop IV 2-0-2
PREREQUISITE: THR 115.
This course is a continuation of THR 113-114-115.

+THR 214  Theater Workshop V 2-0-2
PREREQUISITE: THR 213.
This course is a continuation of THR 113, 114, 115.

+THR 215  Theater Workshop VI 2-0-2
PREREQUISITE: THR 214.
This course is a continuation of THR 113-114-115-214.

+THR 216  Theatrical Make-Up 2-0-2
This course is a study of the materials and techniques of theatrical make-up.

+THR 236  Stagecraft 3-0-3
This course is a study of the principles, techniques, and materials in theatrical scenery and lighting.

+THR 266  Fundamentals of Directing 3-0-3
This course is designed to cover the fundamentals of directing. Instruction will include lectures, demonstration, written and oral analysis of scripts and performances.

+THR 296  Directed Studies in Theater 2-0-2
This course deals with problems in theater and art management. Problems may be arranged in conjunction with other disciplines in the Fine Arts.

Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Water and Wastewater (WMT)

Availability of courses in this program is dependent upon student enrollment. See advisor for further information.

WMT 100  Water Supply and Wastewater Control 3-0-3
This course is designed to familiarize the student with water supply and wastewater control. Emphasis is on the engineering aspects of water supply, water distribution, wastewater collection, and wastewater treatment and disposal. Upon completion, students should be able to apply engineering and scientific concepts and principles of water supply and wastewater control.

WMT 101  Introduction to Water Treatment Processes 3-0-3
This course is designed to train prospective water treatment plant operators and managers in the practical aspects of operating and maintaining water treatment plants, with emphasis on the use of safe practices and procedures. Students will learn how to safely operate and maintain coagulation, flocculation, sedimentation, filtration, and disinfection processes. They will also learn how to control tastes and odors in drinking water, control corrosion to meet the requirements of the Lead and Copper Rule, perform basic water laboratory procedures, and solve arithmetic problems commonly associated with water treatment plant operations.

WMT 102  Introduction to Wastewater Treatment Processes 2-1-3
This course is designed to train prospective wastewater treatment plant operators and managers in the practical aspects of operating and maintaining wastewater treatment plants, with emphasis on the use of safe practices and procedures. Students will learn how to safely operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contactors, package activated sludge plants, oxidation ditches, ponds, and chlorination facilities. Students will also learn how to analyze and solve operational problems and how to perform mathematical calculations relating to wastewater treatment process control.

WMT 120  Sanitary Chemistry and Biology 3-0-3
This course is designed to acquaint the student with the fundamentals of microbiology and chemistry applicable to water and wastewater management. Emphasis is on laboratory procedures pertinent to water/wastewater treatment. Upon completion, students should be able to perform relevant laboratory procedures.

WMT 213  Water and Wastewater Instrumentation and Controls 3-0-3
This course focuses on the basic fundamentals of instrumentation applicable to water and wastewater management. The application, maintenance, and calibration of instruments in water and wastewater systems are emphasized. Upon completion, students should be able to read, calibrate and maintain mechanical, electrical, hydraulic, and pneumatic sensing equipment, and indicating, recording, and control equipment.
The course is designed to provide the student with an understanding of practical hydraulic design related to water supply and wastewater control. Topics include the collection, treatment, and distribution of water and collection and treatment of domestic and industrial wastewater. Upon completion, students should be able to apply principles of hydraulic systems to water and wastewater management practices.

WMT 291 Municipal Internship 0-3-3
This course is designed to allow a student first-hand experience in a municipal wastewater facility or a research facility. These placements will be coordinated through the wastewater treatment program and may include compensated or uncompensated placement.

+Availability of this course is dependent upon sufficient demand. See master schedule of classes or advisor for further information.

Welding (WDT)*
Availability of courses in this program is dependent upon student enrollment. See master schedule of classes or advisor for further information.

WDT 108 SMAW Fillet/OFC 2-1-3
CO-REQUISITE: WDT 122.
This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of oxy-fuel cutting.

WDT 109 SMAW Fillet/PAC/CAC 2-1-3
CO-REQUISITE: WDT 123.
This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of carbon arc cutting and plasma arc cutting. Students should be able to identify pipe positions, filler metals, purging gas, proper joint geometry, joint preparation, and fit-up to the applicable code.

WDT 110 Industrial Blueprint Reading 3-0-3
This course provides students with the understanding and fundamentals of industrial blueprint reading. Emphasis is placed on reading and interpreting lines, views, dimensions, weld joint configurations and weld symbols. Upon completion, students should be able to interpret welding symbols and blueprints as they apply to welding and fabrication.

WDT 115 GTAW Carbon Pipe Theory 1-2-3
PRE-REQUISITE: WDT 228.
CO-REQUISITE: WDT 155.
This course is designed to provide the student with the practices and procedures of welding carbon steel pipe using the gas tungsten arc weld (GTAW) process. Emphasis is placed on pipe positions, filler metal selection, purging gasses, joint geometry, joint preparation, and fit-up. Upon completion, students should be able to identify pipe positions, filler metals, purging gas, proper joint geometry, joint preparation, and fit-up to the applicable code.

WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory 2-1-3
CO-REQUISITE: WDT 124.
This course introduces the student to the gas metal arc and flux cored arc welding process. Emphasis is placed on safe operating practices, handling and storage of compressed gasses, process principles, component identification, various welding techniques and base and filler metal identification.

WDT 120 Shielded Metal Arc Welding Groove Theory 2-1-3
CO-REQUISITE: WDT 125.
This course provides the student with instruction on joint design, joint preparation, and fit-up of groove welds in accordance with applicable welding codes. Emphasis is placed on safe operation, joint design, joint preparation, and fit-up. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds in accordance with applicable welding codes.

WDT 122 SMAW Fillet/OFC Lab 0-3-3
CO-REQUISITE: WDT 108.
This course is designed to introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of oxy-fuel cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-3 groups in accordance with applicable welding code and be able to safely operate oxy-fuel equipment and perform those operations as per the applicable welding code.

WDT 123 SMAW Fillet/PAC/CAC Lab 0-3-3
This course is designed to introduce the student to the proper set-up and operation of the shielded metal arc welding equipment. Emphasis is placed on striking and controlling the arc, and proper fit up of fillet joints. This course is also designed to instruct students in the safe operation of plasma arc and carbon arc cutting. Upon completion, students should be able to make fillet welds in all positions using electrodes in the F-4 groups in accordance with applicable welding code and be able to safely operate plasma arc and carbon arc equipment and perform those operations as per the applicable welding code.

WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab 0-3-3
CO-REQUISITE: WDT 119.
This course provides instruction and demonstration using the various transfer methods and techniques to gas metal arc and flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases.
WDT 125  Shielded Metal Arc Welding Groove Lab 0-3-3
PRE-REQUISITE: WDT 122 and WDT 123.
CO-REQUISITE: WDT 120.
This course provides instruction and demonstration in the shielded metal arc welding process on carbon steel plate with various size F3 and F4 group electrodes in all positions. Emphasis is placed on welding groove joints and using various F3 and F4 group electrodes in all positions. Upon completion, the student should be able to make visually acceptable groove weld joints in accordance with applicable welding codes.

WDT 155  GTAW Carbon Pipe Lab 0-3-3
PRE-REQUISITE: WDT 268.
CO-REQUISITE: WDT 115.
This course is designed to provide the student with skills in welding carbon steel pipe with gas tungsten arc weld techniques in various pipe weld positions. Upon completion, students should be able to perform gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in various positions in accordance with the applicable code.

WDT 181  Special Topics Lab 0-3-3
This course provides specialized instruction in various areas related to the welding industry. Emphasis is placed on meeting students needs.

WDT 182  Special Topics - Advanced Maintenance Welding 1-2-3
This course allows the student to plan, execute, and present results of individual projects in welding. Emphasis is placed on enhancing skill attainment in the welding field. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor.

WDT 183  Special Topics 1-1-2
This course allows the student to plan, execute, and present results of individual projects in welding. Emphasis is placed on enhancing skill attainment in the welding field. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor.

WDT 184  Special Topics 0-1-1
This course allows the student to plan, execute, and present results of individual projects in welding. Emphasis is placed on enhancing skill attainment in the welding field. The student will be able to demonstrate and apply competencies identified and agreed upon between the student and instructor.

WDT 193  Co-op 0-3-3
This course constitutes a series wherein the student works on a part-time basis in a job directly related to welding. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

WDT 217  SMAW Carbon Pipe Theory 1-2-3
PRE-REQUISITE: WDT 120.
CO-REQUISITE: WDT 257.
This course introduces the student to the practices and procedures of welding carbon steel pipe using the shielded metal arc weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, electrodes, proper joint geometry, joint preparation, and fit-up in accordance with applicable codes. perform those operations as per the applicable welding code.

WDT 219  Welding Inspection & Testing 3-0-3
This course provides the student with inspection skills and knowledge necessary to evaluate welded joints and apply quality control measures as needed. Emphasis is placed on interpreting welding codes, welding procedures, and visual inspection methods. Upon completion, students should be able to visually identify visual acceptable weldments as prescribed by the code or welding specification report.

WDT 228  Gas Tungsten Arc Welding Theory 2-1-3
CO-REQUISITE: WDT 268.
This course provides student with knowledge needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes.

WDT 257  SMAW Carbon Pipe Lab 0-3-3
PRE-REQUISITE: WDT 125.
This course is designed to provide the student with skills in welding carbon steel pipe with shielded metal arc welding techniques in various pipe welding positions. Upon completion, students should be able to perform shielded metal arc welding on carbon steel pipe with the prescribed electrodes in various positions in accordance with the applicable codes.

WDT 268  Gas Tungsten Arc Lab 0-3-3
PREREQUISITE: WDT 228 and/or as required by college.
CO-REQUISITE: WDT 228.
This course provides students with skills needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes.

WDT 291  CO-OP 0-3-0
PREREQUISITE: Instructor approval required.
These courses constitute a series wherein the student works on a part-time basis in a job directly related to welding. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.
**Adult Education**

The Adult Education Program provides opportunities for learners age sixteen and older, who are not enrolled in a secondary school. Each learner is assessed and placed in a personally-prescribed study program. Services include:

- Earning a high school diploma – Earn your high school diploma if you did not pass graduation exam(s) and/or earned at least ten credits in high school. Must be nineteen years of age to qualify and last high school attended must be an Alabama public high school.
- GED Preparation - Reading, writing, computing mathematically, social studies, science, literature, and the arts for learners to prepare them to earn the State of Alabama High School Equivalency Diploma.
- Accuplacer Preparation – Bypass remedial college courses
- College & Career Preparation - Designed to prepare adult learners to enter postsecondary education, higher education, training programs, and/or to improve their employability.
- Career Pathways – Assistance in identifying and supporting a learner’s career pathway. There are many paths to choose from.
- Workforce Credentialing - As part of the workforce credentialing initiative in Alabama, the Adult Education Program prepares and administers WorkKeys assessments resulting in the National Career Readiness Certificate (NCRC).
- English as a Second Language (ESL) – Classes providing non-English speaking individuals with the language skills needed to succeed in other educational/training programs and to cope more effectively with the challenges of their daily lives. Learners are also given information on steps to becoming a U.S. citizen and how to advance their education.
- Digital Literacy – Basic digital literacy skills for living in today’s technologically sophisticated world.

Classes are free of charge on both the Muscle Shoals and the Phil Campbell campuses and at various off-campus sites throughout our five county service area. Day and evening classes are offered, and an on-line option is also available for busy adults whose work schedules or other responsibilities do not allow them to attend classes. For information on current class locations and times, or other questions, please call the Adult Education Office at 256.331.5440 or email at adulted@nwscc.edu.

**GED Testing**

The College offers General Educational Development (GED) testing on both campuses. The four test areas include Language Arts, Social Studies, Science, and Mathematics. Instruction at no charge, through Adult Education classes, is recommended prior to taking the GED exam. For information call 256.331.5443 (Shoals Campus) or 256.331.6297 (Phil Campbell Campus).

**Manufacturing Skill Standards Council (MSSC)**

The Manufacturing Skill Standards Council (MSSC) is the nation’s leading industry-led training, assessment and certification organization focused on the core technical competencies needed by industry.

Today’s manufacturing features streamlined production lines, robotics, and computer controlled processes requiring highly developed skills in problem solving, computer and technical training, math skills, and the ability to work in a team environment. These are skills beyond the reading and writing of a standard high school degree.

Northwest-Shoals Community College is preparing and certifying a world-class workforce, and the Certified Production Technician (CPT) program addresses the core technical competencies of higher skilled production workers in all sectors of manufacturing. Certificates are awarded in Safety, Quality Practices & Measurement, Manufacturing Processes & Production, and Maintenance Awareness. Earn all four certificates and receive the full Certified Production Technician Certificate.

Classes are offered in three different tracks: Fast-Track (primarily online), Boot Camp, and Semester Based. Pre-MSSC classes are offered for students needing preparation before entering one of the above mentioned tracks. For more information on classes and financial assistance, please contact the MSSC Training Center Coordinator at 256.331.8092; mssctraining@nwscc.edu.

**Workforce Solutions**

The Workforce Solutions Division, located on the Shoals Campus, works with area companies to meet specific training needs. If traditional classes, whether academic or technical, do not meet the employee development needs of a company, a Workforce Solutions coordinator will work with company representatives to develop training programs, locate a qualified instructor to teach classes, and set the training to the company’s schedule. The coordinator will also monitor the class, along with company representatives, to make sure the employees are reaching the company’s desired outcomes.

New program offerings include:

- Machinist Apprenticeship Program
- CDL Training Program
- Healthcare Re-Certification Training

Visit https://www.nwscc.edu/workforce-training for more information or contact workforcesolutions@nwscc.edu / 256-331-5325.

**WorkKeys®**

Across the country, employers, educators, labor organizations, and state agencies are working together to ensure that students and employees in their communities are adequately prepared for higher-skill, higher-wage jobs. Northwest-Shoals Community College serves as a contact for WorkKeys profiling, assessments, and skill training. WorkKeys®, ACT’s comprehensive system for improving the workforce, can serve as a rallying point for these efforts.
Using WorkKeys,

- Employers can identify and develop workers for a wide range of skilled jobs.
- Students and workers can document and advance their employability skills.
- Educators can tailor instructional programs to help students acquire the skills employers need.

By contributing to a stronger workforce, WorkKeys helps strengthen the nation’s economic health.

**Workforce Investment Opportunity Act (WIOA)**

This program is designed to help persons vocationally displaced who are economically disadvantaged.

Alabama’s Career Center Systems was developed to address the WIA principle requiring a One-Stop system of delivering services to customers. This system was designed to offer a variety of services to customers through coordinated efforts of several agencies, including the Alabama Department of Economic and Community Affairs (ADECA), the Alabama Department of Industrial Relations (DIR), the Alabama Department of Rehabilitation Services (DRS), the Alabama Department of Education/Adult Education, the Alabama Department of Human Resources (DHR), the Alabama Department of Senior Services, the Alabama Community College System (ACCS), and Housing and Urban Development (HUD) Employment and Training Activities. Linkages and partnerships among agencies result in a cost-efficient, seamless environment for those customers who desire services.

Customers, as defined in WIA, are job seekers and employers. Job seekers receive services such as training, education, and other employment-related services depending upon their individual need. Employers have a single point of contact to provide information about current and future skills needed by their workers and to list job openings. One of the benefits to employers that this system offers is helping them find ready skilled workers who meet their needs.

For further information, please contact the North Alabama Skills Center at 256.381.0611 (Shoals area) or 256.332.7672 (Russellville area).

**Ready-To-Work Program**

The Ready-To-Work Program is a grant-funded, workforce development training program sponsored by Northwest-Shoals Community College. The program is free to residents who live in the College’s service area and are ages sixteen years old and above. The Ready to Work program is operated by the Alabama Community College System in cooperation with Alabama’s Industrial Development Training (AIDT). The training curriculum is set to standards cited by business and industry employers throughout the state as well as skills cited in the U.S. Department of Labor’s Secretary’s Commission on Achieving Necessary Skills (SCANS) Reports.

Upon successful completion of the program, students receive two workforce development credentials: the National Career Readiness Certificate (WorkKeys certification) signed by the Governor of Alabama and the Alabama Certified Worker Certificate (ACW). The Ready to Work credentials show employers a person’s abilities and measures the skills that employers seek. The mission of the program is to assist citizens in Alabama to find employment, find better employment and/or continue further education or training. The certifications that are earned improve the marketability and employment opportunities for program graduates.

For more information, please contact the Ready-To-Work Coordinator at 256.331.5248.

**Out-Of-School Youth Success Program**

The Out-of-School Youth Success Program assists and encourages eligible youth, ages 16-24, in developing an educational and career plan, which may include the achievement of their GED, and/or postsecondary completion to achieve the goal of employment in their chosen field. Career Advisors are located in Colbert, Franklin, Lauderdale, Lawrence and Winston counties.

Program services include assistance with:

- Transition to Adult Education
- College enrollment
- Tutoring
- Personal Development workshops
- Job readiness skills
- Job placement

For more information, call 256.331.5262.

The College administers this Workforce Innovation and Opportunity Act grant through the Alabama Department of Commerce.

**Educational Talent Search**

The Educational Talent Search Program is funded through the U.S. Department of Education, sponsored by the College with projects located on both campuses. The program is designed to assist eligible participants to enter, continue in and graduate from high school and to enroll in and complete a program of postsecondary education or training. The program works with students in grades 6 through 12 (ages 11 through 27) as well as dropouts and stop-outs in Colbert, Franklin, Lauderdale, Lawrence, and Winston Counties in Alabama and Lawrence and Wayne Counties in Tennessee. In this program, trained counselors/advisors seek out qualified individuals who need help. Through counseling and advising, they motivate participants to continue their education. Program participants receive academic advising, assistance in course selection, preparation for college entrance exams, assistance with college and student financial aid applications, connections to services to improve financial literacy, personal and career counseling and connections to high quality academic tutoring.

For more information, please contact:
Educational Talent Search Director at 256.331.5348
**Upward Bound Program**

The Upward Bound Program is funded through the U.S. Department of Education and sponsored by the College, at both the Phil Campbell Campus and the Shoals Campus. The program serves high school students of Colbert, Franklin, Lauderdale, and Winston Counties.

The purpose of this program is to generate in its participants additional academic and motivational skills necessary for success in secondary and postsecondary education. Program participants are selected from area high schools based on criteria mandated by the U.S. Department of Education.

The Upward Bound Program consists of an academic component and a summer component. The academic component focuses on cultural enrichment and supplemental support to assist the students in subject areas in which they may experience the most difficulty (tutoring sessions). The summer component consists of a six-week program which focuses on exposing program participants to college life, and obtaining some college credit.

For further information, please contact the Phil Campbell Campus at 256.331.6277 or the Shoals Campus at 256.331.5357.

**Library Services**

Northwest-Shoals Community College has two library locations: the James A. Glasgow Library on the Phil Campbell Campus and the Larry W. McCoy Learning Resources Center on the Shoals Campus. Library services at the Phil Campbell and the Shoals Campuses support the various instructional programs and courses of the College with a total collection of over 64,000 books, several hundred periodicals, newspapers, and vertical file material. The libraries are members of the Library Management Network. Through this network, the holdings of the libraries are available via the Internet. Over 41,000 E-books, electronic versions of printed books, are accessible via the LMN website (www.lmn.lib.al.us). Internet access to the Alabama Virtual Library provides a variety of information through periodical indexes and resources. Library orientation is provided through individual or scheduled group sessions. The library is open 56 hours per week, except for holidays. Distance education students may access information on library resources as well as a library orientation on the college library website. The library phone numbers are 256.331.5283 (Shoals Campus) and 256.331.6271 (Phil Campbell Campus).

**Library Regulations**

Students registered for class at the College may use library materials on presentation of their student ID card. Materials generally circulate for a period of two weeks. Students with overdue materials must clear their obligations at the end of each term; otherwise, the student will not be permitted to register for further studies with the College.

Community citizens who wish to borrow materials may also be issued a library card by simply providing their full name, current address, and phone number. Only two books per person may be checked out at a time.

**Alabama Technology Network Muscle Shoals Center**

The Alabama Technology Network of the Alabama College System links two-year colleges, the University of Alabama System, Auburn University and the Economic Development Partnership of Alabama to solve the needs of industry. Each AN regional center tailors its services to meet local needs, providing innovative and cost-effective solutions to enable Alabama’s existing industry to be globally competitive. The network is Alabama’s affiliate of the National Institute of Standards and Technology’s Manufacturing Extension Partnership, which provides hands-on assistance and training to smaller manufacturers. The Alabama Technology Network is committed to meeting customer requirements and increasing customer satisfaction through the quality management system. After initially receiving ISO 9001:2000 certification, ATN then transitioned to the ISO 9001:2008 Quality Management System standard. ATN-Muscle Shoals center specializes in environmental, health and safety training and technical assistance. For more information, please contact 256.331.5422 or visit http://www.atn.org.

**Shoals Campus Child Development Center**

The College Child Development Center is an on-campus child care facility for pre-school children of Northwest-Shoals Community College students, faculty and staff, and for the community. The center is open from 7:00 a.m. until 5:00 p.m. and will operate on the same calendar schedule as the College contingent on adequate enrollment. A parent or guardian must register a child before he/she will be allowed to stay in the care of the center staff. The Shoals Center serves children 2 to 5 years old who are potty trained. To register a child, please obtain a form at the Shoals Campus Child Development Center at 256.331.5245. (N.A.E.Y.C. Accredited Site)

**Discounts:**

Children of Northwest-Shoals Community College students, faculty and staff are eligible for a discounted tuition rate. Childcare Management Agency (CMA) assistance is accepted as well as scholarships that are available. For more information on these scholarships, contact the Shoals Campus Child Development Center at 256.331.5245.

**Pre-Kindergarten Program**

A state supported pre-K program for 18 children who are four years old is available on the Shoals Campus. A minimal sliding fee for program services is assessed and may be charged. Hours of operation for this program are 7:45 a.m. until 2:15 p.m. Before and after school care are also available for pre-K students. For more information, call the Shoals Campus Child Development Center at 256.331.5245.
Summer School-Age Child Care
On campus school-age care is offered in the Child Development Center during the summer term for children and serves preschool ages that are potty trained from 2 1/2 years old to age 6. This service will be available from 7:00 a.m. until 5:00 p.m., Monday through Friday for children of students, faculty, staff, and community contingent upon adequate enrollment. Pre-registration is required. For more information and fee rates, contact the Shoals Campus Child Development Center at 256.331.5245.

Kids In College
Offered through the College’s Child Development Program, the “Kids in College” summer education program provides a unique learning opportunity for children who are home or visiting in the summer. “Kids in College” is specially designed for children entering grades K-6. The camp brings children onto the Shoals Campus and into the classroom for lots of fun while learning. Children participate in age-grouped classes that provide hands-on, non-graded academic, creative, physical, and wellness activities. For information and dates contact the Child Development Center at 256.331.5245.
Student Development Services

Purpose Statement

Student Development Services is a support system to help students in meeting their academic objectives, and at the same time to broaden the student’s perspective outside the structured classroom experience. The following functions serve the student body and complement classroom instruction: Admissions, Career Planning/Counseling, Career Services, Adult Education/ GED Testing, Registration, Services for Special Student Populations, Student Activities, Intramurals, Student Financial Aid, and Recruitment.

Student Development Services works with students toward their total development-physical, emotional, moral, social, as well as mental-by providing nonacademic experiences and services which aid in total student development and student success. By providing these services, Student Development Services supports the College’s mission of providing lifelong educational opportunities, economic growth and a higher quality of life for its students.

In summary, the objectives of Student Development Services support instructional objectives in the following manner:

1. Helping students achieve the highest possible potential beyond a secondary-school level.
2. Emphasizing freedom of choice and decision-making.
3. Emphasizing academic or occupational-vocational work which prepares the student for successful entry into a senior college or university and/or entry into a vocation from which the student may earn a livelihood and gain satisfaction.
4. Stressing the total cooperation between the different facets of education from which the student may be the beneficiary.
5. Assisting occupational-technical students in self-evaluation to determine the most suitable programs to fit their interest and aptitudes.
6. Developing student leadership skills and providing opportunities for student participation in the College’s planning and decision-making.
7. Establishing a recruitment program that targets diverse groups.
8. Establishing programs that serve minority groups, at-risk students, women and students with disabilities.

Visitors Policy

The College welcomes all individuals or groups visiting the campus. Guides will be provided upon request. Check with the receptionist or call the admission offices for a friendly and informed guided tour. The College requires that all visitors register with Campus Police.

Inclement Weather Procedures

When inclement weather or other conditions indicate that the College needs to close, Closing information is posted on the College’s website, College’s social media sites and sent to local radio and television stations before 6:30 a.m. for day classes and before 4:00 p.m. for evening classes.

Patriot Alert - Northwest-Shoals’ Emergency Notification System

Northwest-Shoals Community College utilizes “Patriot Alert,” the new emergency alert and notification system. Patriot Alert delivers messages in the event of an emergency to students, faculty members, and staff. This will be the best source for timely information and instructions on what to do in the event of any campus emergency (college closing, delay in opening, etc.).

Students no longer need to rely on the media, calls to the college or friends, or coming to the campus to learn about the adverse impact on campus operations due to severe weather, power outages, criminal activity, threats, or other emergency situations. Signing up for Patriot Alert will ensure that this information is automatically delivered to the email addresses and phone numbers (by voice and/or text message) that students provide within moments of any such alerts being sent by the college. Patriot Alert provides this important information directly from authorized members of the college’s administration and security personnel. The Patriot Alert is the official source of the most accurate and current information.

Please follow the simple steps below to log-in to your private Patriot Alert “Dashboard” and enter your contact information. Please be assured that all contact information provided will be kept confidential, safe, and secure, and will never be used for any purpose beyond the authorization given by the student. The student information is for the official use of Northwest-Shoals Community College’s emergency alert system only and is never shared with any third parties.

To log-in and access the NW-SCC SchoolCast Dashboard account, go to the following secure web-site: https://www.myschoolcast.com/go/nws

Identification Cards

New students must have a photo taken for the BankMobile Card upon registration. ID Cards may be required for use of the library and other campus activities. The following regulations apply to the ID Card System:

1. Students are to carry their cards at all times. When requested by College officials for proper identification, students are to present their cards. Failure to present ID Cards may result in disciplinary action or arrest for trespassing. Student ID Cards are made for personal use only. Students violating the ID Card privileges are subject to probation, suspension, or dismissal.
2. Loss or theft of cards should be reported to the Student Success Center, Shoals Campus; Cashier’s Office, Phil Campbell Campus; or Higher One.
3. Replacement ID Cards cost $20.00 each.
4. Temporary ID cards are $5.00 and valid for 30 days.
**Vehicle Registration/Parking Decals**

All motor vehicles operated regularly on the campus by students and College personnel must be registered with the College. All operators of automobiles on the campus are subject to the following parking and traffic regulations. (Revisions will be posted.) The College reserves the right to regulate the use of vehicles on both campuses and withdraw the privilege of operating an automobile on both campuses for failure to abide by the regulations or for other good cause.

1. All motor vehicles, including motorcycles, operated on campus by students must be registered once each academic year. Cost of decal for FA/SP is $8.00, SU $4.00 and is included in the NW-SCC fees during registration of classes.
2. Students will be issued a decal which must be displayed on vehicle.
3. When the owner trades motor vehicles, the currently used motor vehicle should be registered. Replacement decals can be obtained in the Cashier’s office.
4. The person in whose name a vehicle is registered, regardless of who is driving, is responsible for all traffic and parking citations on campus.
5. Any student not enrolled in credit classes who will be on campus on a regular basis will be required to purchase a decal from the Cashiers Office.
6. State law - mandatory insurance

**Parking Violations**

1. Unauthorized parking in areas designated as:
   a. Faculty/Staff Parking
   b. Handicap Parking
   c. Yellow Curb
   d. Fire Lane
   e. No Parking Zone
   f. Reserved Parking
   g. Visitors Parking
2. Blocking drive or walkway
3. No decal
4. Parking on grass
5. Any area designated by the College

**Other Violations**

1. Speeding
2. Running stop sign
3. Littering
4. Loud music
5. Tobacco use/Smoking
6. Firearm/Weapons

**Penalties**

Violators may be ticketed by Campus Security. Unpaid tickets will result in additional penalties to the students. Grades will be withheld and the student will not be allowed to register until all fines are paid. The school reserves the right to tow violators. A list of fines is available on the College Website. These are subject to change.

The College has implemented a color code system for parking as listed below:

- **Red** - Faculty/Staff
- **Green** - Visitor
- **White** - Students
- **Blue** - Handicap
- **Yellow** - No Parking

**Crime Reporting and Timely Warnings**

In the event of a criminal act, notify Campus Security:

- **Shoals Campus** 256.627.1526
- **Phil Campbell Campus** 256.412.4731

It is the responsibility of the College to investigate an incident or criminal act that occurs on campus and to take proper action. The College will notify and cooperate with other law enforcement agencies when appropriate.

Numerous and diligent efforts are made to advise members of the campus community of crime-related problems. It is the duty of the college to inform students of threatening situations, in a timely fashion. The campus police, the office of the Chief Fiscal Officer and public relations will release information which can be used by students and other college community members to reduce their chances of becoming victims. This information will be released via the Patriot Alert and flyers will be posted at visible locations throughout the College.

**Student Resources**

**College Bookstore**

**Hours of Operation** (subject to change)

- **Shoals Campus - Building 101**
  - Phone: 256.331.5227
  - Monday-Thursday 7:30 a.m.-5:30 p.m.
  - Friday 7:30 a.m.-11:30 a.m.
  - Website: [www.nwsccshop.com](http://www.nwsccshop.com)

- **Phil Campbell Campus - Building 304**
  - Phone: 256.331.6213
  - Monday-Thursday 7:30 a.m.-4:30 p.m.
  - Website: [www.nwscfccshop.com](http://www.nwscfccshop.com)

**Methods of Payment**

The Bookstore accepts cash, check, gift cards, MasterCard, Visa, Discover, American Express, and PayPal.
- Checks will be accepted for the amount of purchase only.
- Third Party checks will not be accepted.
- Student ID or driver’s license is required when writing a check.
- Checks should be made payable to NW-SCC Bookstore.
- Refunds will be credited in the same form as payment method. Example: Purchase made with credit card will be returned to credit card.
- Refunds for purchases paid by check are subject to a 15 day waiting period from time of purchase.
- Financial Aid credits will be returned to student account or Higher One card.

**Textbook/Course Material Refund Policy**

Textbooks and course materials in resalable condition may be refunded with a receipt within seven (7) calendar days from the start of classes or within two (2) days of purchase thereafter, including summer terms. Textbooks and course materials purchased during the last week of classes or during exam week are not eligible for return. Defective books should be returned immediately for a replacement. A receipt is required for exchanging defective books.
General Merchandise Refund Policy
Non-textbook items may be refunded or exchanged within 30 days of the sale with the original receipt, providing the merchandise is in resalable condition. Items must contain all original packaging and accessories. Defective merchandise must be returned immediately with a receipt for a replacement. Computer software, CDs and DVDs may be returned providing they are unopened and shrink-wrapped.

Financial Aid Students
(Pell, WIOA, TAA, Scholarships, etc.)
- Charges will be accepted for a limited time each semester. Exact dates for charges will be posted in the Bookstore.
- Picture ID (student ID or Driver’s License) is required for all financial aid charges.
- Students are responsible for knowing what books or merchandise can be charged to their particular type of financial aid program.
- Gift items and clothing can not be charged to any type of financial aid.

Rental and digital options are available on many textbooks and more are being added every semester. See bookstore staff for details.

Book Buyback
The Bookstore buys books back every day. The buyback amount is determined by several factors including but not limited to the use of the book for the next semester and the condition of the book. Buyback amounts cannot be determined over the phone. See bookstore staff for details.

Bookstore Tips
- Always keep your receipt.
- Notice signs posted in and around the Bookstore to stay informed about key information.
- Shop early if possible for a better selection of used books.
- Always bring your Student ID.
- Bring your class schedule with you to ensure that you purchase the correct books.
- Books are labeled with tags that include class information. Just match the course number to your schedule.
- If you purchase the wrong book you may return it provided you follow the refund policy.
- When a book is listed as optional you may want to go to class before purchasing it.

Student Success Services
The College provides counseling services that:
- Assist students with development of meaningful educational plans that are compatible with their identified goals;
- Assist students through a system of testing in acquiring appropriate career goals;
- Assist students in making career choices by providing information and assessments regarding various careers;
- Provide services to aid students in their transition and success with their college experience;
- And assist students in dealing with obstacles that interfere with their educational, occupational, social, and personal goals.

Student Success and Career Centers are located on both the Shoals and Phil Campbell Campuses. Various materials are available for the student's personal use, such as Computerized Interest Inventories and Career Explorations Programs, college catalogs, and Occupational Guidance Literature.

Career Services
Career Services provides assistance to students in locating and securing employment upon graduation, as well as part-time employment while they are pursuing their degree or certificate.

Career Services includes assistance with career interest inventories, resume preparation, employment applications and the development of interview skills.

Employers contact Career Services to hire currently enrolled students as well as graduates. Career Services personnel:
- Post job vacancies;
- Make job applications accessible to students upon employers' request;
- Send resume to employers;
- Assist employers with scheduling interviews.

Each semester, Career Services conducts a "Job Seeking Skills" workshop. Topics include resume writing, job search information, employability skills, and interviewing skills.

Students must be currently enrolled or Northwest-Shoals graduates and must complete a registration form and have a current resume on file to be eligible to register with Career Services. The Career Services staff is available by appointment for individual assistance.

Students are encouraged to keep their files current.
Contact:
Phil Campbell Campus 256.331.6297
Shoals Campus 256.331.5375

Cooperative Education
Cooperative (Co-op) Education is a program which allows students to gain work experience associated with their fields of study. This plan integrates classroom study with employment and is based on the principle that learning does not confine itself to academic achievement but is equally dependent upon practical experience. Students are placed in industrial, business, educational and governmental positions where they have the opportunity for real-world work experiences.

In addition to work experience gained by the student, the co-op program has a distinct advantage for participating companies. Employers are given the opportunity of having first chance at hiring some of the most knowledgeable and aggressive students which attend specific programs of study. Past experience has shown that these students are very loyal to companies that hire them providing them with an income as they continue their education. In addition, the students are usually hired on a part-time basis and do not incur the cost of hiring full-time employees.

There are two avenues for the student to select from as they enter the co-op education program. Both options have a one (1) credit hour limit per semester with a maximum of
three (3) credit hours in two years. They also require employer involvement through employer appraisal sheets submitted at the end of each semester.

The co-op elective option requires a minimum of 20 clock hours per week in the co-op work environment.

The co-op substitution option allows the student to substitute real-world work experiences in their field of study for the required lab classes in their selected program. The student must attend the theory classes and is responsible for all the content material within the lab they are substituting.

For more information, contact the Vice President’s Office at 256.331.5217.

### Learning Resources Center Regulations

#### Charging Books and Other LRC Materials

1. A book may be checked out for two weeks on an automated circulation system used by the LRC. A book may be renewed when returned by the student provided that no other students need it. However, one may not renew an overdue book without first paying the fine. No more than 7 books can be checked out by one patron.

2. Reserve books are located at the circulation desk. Books on room reserve circulate only in the LRC. Special arrangements must be made with the librarian on duty for permission to keep books longer than the specified periods.

3. Books should be returned to the circulation desk of the LRC during service hours. Materials may be deposited in the book return located outside the LRC during non-College hours.

#### Lost Books

1. If a book is lost while it is charged out in a student’s name, the student must pay the replacement value of the book. If a book is no longer in print, the replacement value will not exceed the original value of the book. A receipt for payment will be issued by the business office.

2. If the book is found and returned to the LRC, the student’s money will be requested for refund from the Business Office upon presentation of the receipt and clearance from the LRC; the student then is liable for the full overdue charge on the book.

#### Fines

1. A book or materials in regular circulation carries a fine of $.10 for each class day it is overdue.

2. Reserve books carry a fine of $.25 per day overdue.

3. Fines should be paid and all LRC obligations cleared before a student will be permitted to charge out a book or materials. Fines must be paid and all LRC obligations cleared at the end of each term; otherwise, the student will not be permitted to register for further studies with the College.

4. No fine will exceed the original value of the book.

5. Overdue lists are on file and students are notified each term of overdue books.

### Student Rights and Responsibilities

Students have the right to use all the materials held by the LRC, but students have the responsibility to try to use them in such a way that other students may use them also. The following Bill of Rights adequately sums up student rights and duties:

1. Every student has the right to use all the facilities of the library; likewise, he/she has the responsibility to leave the facilities in the same condition for other students in which they were made available to him/her.

2. Every student has the right to study undisturbed; likewise, each student has the responsibility to see that he/she does not infringe on the rights of other students to study undisturbed.

3. Every student has the right to borrow circulating library materials; likewise, he/she has the responsibility to extend the same courtesy to other students, library personnel, and guests to the library.

In keeping with college philosophy, the LRC extends circulation privileges to the people of the surrounding areas. The LRC’s hours are posted in the buildings and reviewed in library orientations.

### Student Success Center

The Student Success Center offers seminars and workshops in conjunction with the Student Success course to address issues related to the affective needs of students including but not limited to time and money management, test and study skills, navigating through NW-SCC, and college transfer. Additionally, Student Success Coaches serve as one-on-one mentors for new, transitional, probationary, and faculty-identified students. Coaches communicate with students to serve as academic coaches, accountability partners, and significant connections to the College for identified students.

The Student Success Center provides:

- New student mentoring
- Student Success Workshops (ex. Financial aid, goal setting, college transfer, career preparation)
- Career planning
- Study rooms
- Tutoring rooms

The Student Success Center is located on the Shoals Campus, Building 100, Room 117, and on the Phil Campbell Campus, Building 306, Room L. Contact information: Muscle Shoals Campus – 256-331-5207, Phil Campbell Campus – 256-331-6353

### Advising

The Advising Center is located on the Shoals Campus in the Administration Building (Building 100) and offers general information, advising, and early registration for new students. The Center assists the Instructional Division of the College in integrating students into an ongoing advising process with faculty to ensure the successful completion of their programs of study. For more information, contact the Advising Center at 256-331-5221.
Student Support Services
The Student Support Services Program provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students toward the successful completion of their postsecondary education. Student Support Services (SSS) also provides limited scholarships to current SSS participants who are receiving Federal Pell Grants. The goal of SSS is to increase the college retention, transfer, and graduation rates of its participants and help students make the transition from one level of higher education to the next. To qualify for services, students must be a U.S. citizen, first generation (neither parent graduated from a four-year college), of limited income, or have a documented disability in the NW-SCC ADA office. Specific services include but are not limited to tutoring, career planning and interest inventories, assistance with transfer and campus visits, academic advising and priority registration for continuing participants, financial aid planning and scholarship searches, and consideration for direct financial assistance. Application for the program may be made on-line or in the offices located on both campuses. Additional information may be obtained by calling 256-331-8057 on the Shoals Campus or 256-331-6235 on the Phil Campbell Campus.

Workforce Development Center
Testing
The Testing/Advising Center is located on the Shoals Campus in the Workforce Development Center (Building 127) and offers general information, testing, advising and early registration for new students. The center assists the Instructional Division of the College in integrating students into an ongoing advising process with faculty to ensure the successful completion of their programs of study.

The College provides various types of testing services which support counseling, educational programs and Workforce Development. Testing services include many national testing programs such as the ACT, SAT, ACCUPLACER, CLEP, GED and WorkKeys.

ACT - The American College Test Programs are administered on all regularly scheduled national testing dates. Persons desiring more information should contact Student Services.

ACCUPLACER - All new students who have not completed college-level English or mathematics courses must take a placement test before registering for classes. The ACCUPLACER test is administered by computer. The results from the placement test help students and their advisors work together to identify skills, strengths, and knowledge in order to succeed in English and mathematics. The ACCUPLACER also helps the College use the results to guide students toward classes that strengthen their current knowledge and skills to ensure educational success. There is a charge to re-test. For more information see page 26.

CLEP - The College Level Examination Program is a national system of credit by examination. The College is an open test center. More specific information on this test may be found in this catalog under the topic “Credit From Non-Traditional Sources.”

GED - The General Educational Development Test is the standard test of high school equivalency. It is administered weekly at the Shoals campus, one day a month at the Phil Campbell campus. Persons desiring to take the GED must be at least 18 years old, may not be enrolled in regular or secondary day school, and must meet Alabama residency requirements. Applicants’ 16 years of age may take the GED, but they must present special documentation. A $5.00 fee is required for duplicate copies of test scores. Contact the Testing/Advising Center for details.

WORKKEYS - WorkKeys assessments are administered as requested by business and industry and local school systems. The services of the Workforce Development Center staff are available to all students enrolled at the College. Students are encouraged to make wise use of these services.

Contact Information:
Muscle Shoals Campus – 256-331-5282
Phil Campbell Campus – 256-331-6297

Additional Information
The Workforce Development Center offers additional workforce training for citizens of the Northwest Alabama community. For more information on the college’s “Ready to Work” program or to prepare for the “Career Ready Alabama” certificate, call 256.331.5248.

Student Life
The Student Life program at the College is designed to provide opportunities for students to participate in individual and group-directed educational experiences that are meaningful and enriching to their lives. This program consists of student activities, clubs/organizations and intramurals on the Phil Campbell and Shoals Campuses.

Student Activities
Institutional Policy
It is the policy at the College that all student activities and organizations are non-discriminatory in terms of membership and are in full compliance with all requirements imposed by Title VI, Title IX, and the Rehabilitation Act of 1973 as amended.

All extracurricular activities are under the direct control of the College through the Assistant Dean. The Assistant Dean must approve policies and procedures for control and operation of all clubs, organizations and activities sponsored by the institution. Each campus has a Coordinator of Student Activities to assist the Assistant Dean with coordination. The Assistant Dean reports to the Vice President.

The Student Activities program offers events for students to participate in each semester which may include: campus cookouts, SGA elections, Mr. & Ms. Northwest-Shoals elections, Halloween contests, National Collegiate Alcohol Awareness Week, Community College Month and Spring Fling - based on student interest.
Organizations and Clubs

Phil Campbell Campus

The following clubs/organizations are available:

**Ambassadors** - The Northwest-Shoals Ambassadors are students who help promote school spirit, assist in receiving guests at official functions, go to area high schools for recruiting purposes, act as hosts to welcome visitors of the administration and faculty, take high school seniors and other interested persons on tours of the campus, and serve at other college and community events. Selection is based on an interview, academic achievement, personality, community involvement and extracurricular activities.

**Circle K** - is the world’s premier collegiate organization with a membership of more than 11,000 members on more than 525 campuses around the globe. Circle K is comprised of college students who are responsible citizens and leaders with a lifelong commitment to community service worldwide. The students embrace the youth of the area, helping them become better students and citizens.

**College Bowl Team** - engages in intercollegiate academic competition with institutions in the Alabama College system: This group is recruited from high school scholars bowl teams and enrolled in Interdisciplinary Studies (IDS) classes on both campuses.

**National Student Nurses’ Association** - The Associate Degree Nursing Program offers students the opportunity to join the National Student Nurses’ Association (NSNA). The mission of NSNA includes development of leadership skills and promotion of high standards of nursing care including accountability and client advocacy. Membership is voluntary and includes annual dues.

**Nursing Club** - provides opportunity for fellowship, academic, and personal development to its members. Nursing is promoted by class and community involvement.

**Phi Theta Kappa** - Alpha Zeta Iota Chapter is an international honor society that has as its objective the promotion of scholarship and fellowship among students with superior achievement. Students are selected for membership in Phi Theta Kappa based on the completion of 12 semester hours and a cumulative GPA of 3.5 or higher.

**Revive College Ministry** - The Northwest-Shoals Revive College Ministry is organized to reach others for Christ. To provide a time of Christ-centered fellowship, to study His Word, and to learn how to follow Jesus in everyday life. Revive is open to all.

**Science Club** - Northwest-Shoals Society for Technology and Science (The Science Club) is organized to promote the academic welfare of students interested in science, medicine, pharmacy, engineering and other technical areas. Members participate during the year in a variety of academic, social, and community service activities such as National Chemistry Week, the Science With Santa Show, National Technology Week, picnics, field trips, meetings featuring outside speakers, and science demonstrations in public school classrooms.

**Student Government Association (SGA)** - represents student views to the college administration and coordinates the student activities program. The SGA serves as an umbrella for all other clubs/organizations on campus. Students must meet qualification requirements to seek positions on the SGA. Positions available each year include President, Vice-President, Secretary/Treasurer and Senators.

The sponsors and student leaders from the campus-based clubs/organizations make up the Student Leadership Councils. These councils are chaired by the Coordinators of Student Activities and meet with the President each year to discuss student and College activities planned and student concerns.

Students have an important role in the College’s decision-making process. The Student Leadership Councils serve as advisory groups to channel communication to the College President and other college administrators. Student leaders are appointed as voting members of various standing committees by the College President.

Shoals Campus

The following clubs/organizations are available:

**Ambassadors** - The Northwest-Shoals Ambassadors are students who help promote school spirit, assist in receiving guests at official functions, go to area high schools for recruiting purposes, act as hosts to welcome visitors of the administration and faculty, take high school seniors and other interested persons on tours of the campus, and serve at other College and community events. Selection is based on an interview, academic achievement, personality, community involvement and extracurricular activities.

**Art Club** - seeks to be an active part of the rich local art community and enhance the cultural awareness of its members.

**ASHRAE (American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.)** - brings students together who are pursuing a career in the field of heating, ventilating, refrigeration and engineering.

**Circle K** - is the world’s premier collegiate organization with a membership of more than 11,000 members on more than 525 campuses around the globe. Circle K is comprised of college students who are responsible citizens and leaders with a lifelong commitment to community service worldwide. The students embrace the youth of the area, helping them become better students and citizens.

**College Bowl Team** - engages in intercollegiate academic competition with institutions in the Alabama College system: This group is recruited from high school scholars bowl teams and enrolled in Interdisciplinary Studies (IDS) classes on both campuses.

**English Club** - provides an enjoyable and inviting atmosphere for students sharing common interests in English, literature, writing, journalism, and/or humanities. Club members participate in a variety of college activities, fundraisers, and community events.

**Math Club** - an organization to promote interest and excitement about mathematics in a friendly, collaborative environment. Members participate in a variety of college activities, fundraisers, and community events.

**Mu Alpha Theta** - Mu Alpha Theta is a National Two-Year College Mathematics Honor Society that is dedicated to inspiring keen interest in mathematics, developing strong scholarship in the subject, and promoting the enjoyment of mathematics. Students apply for membership and are selected based on their completion of either MTH 112 or MTH 110 with
a B or higher average and all other math courses beyond MTH 110/112 should comprise a math GPA of 3.0 or higher. Some of the activities that our students are involved in are as follows: competing in state AMATYC math competitions, promoting mathematics in our community by hosting math tournaments for area high schools, celebrating Pi Day with fellow students, and assisting with our STEAM programs such as BEST Robotics.

**Multicultural Club** - develops students' awareness of diverse cultures within our community. The club is open to all students interested in exploring new cultural traditions, community development, and interaction with students from dissimilar backgrounds.

**NW-SCC Fishing Club** - competes in various collegiate fishing tournaments throughout north Alabama.

**Patriots for Christ** - Seeks to be a shining light for Northwest-Shoals Community College and to provide a spiritual support system to all searching for a closer relationship with God and the truth about His Word.

**Phi Theta Kappa** - Alpha Sigma Beta Chapter is a national honor society that has as its objective the promotion of scholarship and fellowship among students with superior achievement. Students are selected for membership in Phi Theta Kappa based on the completion of 12 semester hours and a cumulative GPA of 3.5 or higher.

**Science Club** - Northwest-Shoals' Society for Technology and Science (The Science Club) is organized to promote the academic welfare of students interested in science, medicine, pharmacy, engineering and other technical areas. Members participate during the year in a variety of academic, social, and community service activities such as National Chemistry Week, the Science With Santa Show, National Technology Week, picnics, field trips, meetings featuring outside speakers, and science demonstrations in public school classrooms.

**Skills USA** - is a national organization for students enrolled in technical, skilled, and service occupations. It provides quality education, experiences for students in leadership, teamwork, citizenship and character development.

**Student Government Association (SGA)** - represents student views to the college administration and coordinates the student activities program. The SGA serves as an umbrella for all other clubs/organizations on campus. Students must meet qualification requirements to seek positions on the SGA. Positions available each year include President, Vice-President, Secretary/Treasurer and Senators.

The sponsors and student leaders from the campus-based clubs/organizations make up the Student Leadership Councils. These councils are chaired by the Coordinators of Student Activities and meet with the President each year to discuss student and College activities planned and student concerns. Students have an important role in the College's decision-making process. The Student Leadership Councils serve as advisory groups to channel communication to the College President and other college administrators. Student leaders are appointed as voting members of various standing committees by the College President.

### Fundraising

All fund raising activities conducted by student clubs and organizations must be approved by the President.

The Intramural Program on each campus provides opportunities for students to participate in a variety of recreational sports and table games. This program enhances student enjoyment, fitness, and personal skills. Events are held throughout the year including: pool, basketball, ping pong, softball, tennis, flag football, and table games. Staff are designated on each campus to survey student interests, plan activities and implement the programs under the supervision of the Coordinators of Student Activities.

### Campus Facilities

#### Food and Snacks

Vending machines with assorted snacks and drinks are available on the Shoals Campus in Buildings 100, 112, 115, 118, 121 and 122. Problems with vending machines should be reported to the Cashier’s Office. On the Phil Campbell Campus, vending machines are located in the Student Center, Occupational Building, and the Fine Arts Center, and the cafeteria is located in the student center. Problems should be reported to the Cashier.

#### Check Cashing Policy

- Student checks will be honored for the amount of purchase only.
- No two-party checks will be cashed, except NW-SCC checks of $10.00 or less.
- Check cashing privileges will be denied after two returned checks.

#### College Email

Northwest-Shoals Community College supplies all students with an NW-SCC email account. Communication from the College will be transmitted through this account. To activate, students should visit the www.nwscc.edu and follow directions posted on the homepage.

#### Personal Mail

The mailroom does not accept incoming or outgoing personal mail. All personal packages or mail delivered to NW-SCC will be returned to the sender.

#### Health Services

Medical facilities are not provided on campus for College students. Medical treatment for students and faculty is not to be obtained from the PN instructors, RN instructors or students except when they set up a time and place to check blood pressure or in the case of an emergency. Health services are limited to first aid and the response of advanced life support units from the local hospitals. The College assumes no responsibility for medical treatment to its students. Any accident or injury requiring more than basic first aid treatment is referred to one of the local hospitals or to the student’s private physician. The expense of hospitalization or medical treatment will be borne by the student.
For the Shoals Campus, the emergency phone number for the Helen Keller Ambulance Service is 256.386-4601. This service will transport to Helen Keller, Medical Center Shoals, or ECM Hospital. Limited first aid supplies are located in the Admissions Office on both campuses and in each of the Occupational Program Offices on the Shoals Campus. For the Phil Campbell Campus, the emergency phone number for the Phil Campbell Rescue Squad is 256.993.4242 or 911.

**Student Insurance Benefits**

**ELIGIBILITY**

All eligible students of Northwest-Shoals Community College are covered for the activities while under the care and direction of the school with the exception of Dual Enrollment/Dual Credit.

**POLICY EFFECTIVE DATE**

The Policy is effective from August 16, 2018 to August 16, 2019.

**MEDICAL EXPENSE BENEFITS**

If the Insured Student incurs eligible expenses as the result of a covered injury, directly and independently of all other causes, the Company will pay the charges incurred for such expense within 52 weeks, beginning on the date of accident. Payment will be made for eligible expenses not to exceed $10,000. The first such expense must be incurred within 60 days after the date of the accident. "Eligible Expense" means charges for the following necessary treatment and service, not to exceed the usual and customary charges in the area where provided, including:

1. Medical and surgical care by a physician;
2. Radiology (X-rays);
3. Prescription drugs and medicines;
4. Dental treatment of sound natural teeth;
5. Hospital care and service in semi-private accommodations, or as an outpatient;
6. Ambulance service from the scene of the accident to the nearest hospital;
7. Orthopedic appliances necessary to promote healing.

**CLAIM PROCEDURE**

In the event of an accident, the student should:

1. Report immediately to the nearest doctor or hospital.
2. A completed claim form is required for each accident in order to process the claim. Secure a claim form from the cashier's office or online at www.studentplanscenter.com. Complete and sign the claim form, attach all medical and hospital bills and mail to the Plan Underwriter below.

For a detailed brochure on the NW-SCC Student Insurance Policy, please contact the NW-SCC Cashiers’ Office at 256.331.5226 (Shoals Campus) or 256.331.6382 (Phil Campbell Campus).

### NW-SCC Policies

**Campus Security Policies**

**A. Reporting Criminal Actions or Other Emergencies**

1. It is the policy of the College that any criminal act; act or threat of violence; injury; destruction of college or personal property; traffic accident; or other situation which occurs on any campus of, or any other site operated by, the College, and which may constitute an emergency, a danger to the health, safety, or property of any person, or a threat to the public order be reported to Campus Police at 256.627.1526, Shoals Campus or 256.412.4731, Phil Campbell Campus. If this is unsuccessful, the situation should be reported to the President’s Office.

2. All witnesses to any situation which fits into any of the above-described categories shall make themselves available to make written statements and otherwise assist college officials and law enforcement officers in the investigation of the situation. It shall be an offense subject to appropriate disciplinary action for any College employee or student to file false report of, knowingly make a false statement about, or interfere with the investigation of, any situation of the nature described in paragraph A.1. above.

3. It shall be the duty of the College, upon its designated official or officials being made aware of any situation of a nature described in Paragraph A.1. above, to immediately take all reasonable action to prevent or minimize any harm or threat of harm to the employees, students, and visitors of the College. Furthermore, it shall be the duty of said official(s) to notify the appropriate law enforcement agency in the event of an act of a criminal nature, or of any other nature (for example, a traffic accident) which would ordinarily involve law enforcement officials. Additionally, it shall be the duty of said official(s) to contact the appropriate fire department, emergency medical agency, or other authority or agency which is due to be notified of the respective incident.

4. Firearms/weapons of any kind are prohibited on all properties of NW-SCC. Violation of this policy will result in being trespassed from the campus and may result in arrest.

**B. Security of Campus Facilities**

The College has a security system for monitoring buildings.

**Crime Statistics**

As required by Public Law 101-542, statistics will be made available concerning such crimes as murders, rapes, robberies, aggravated assaults, burglaries, and motor vehicle thefts occurring at any College site. In compliance with the Clery Act, the following are statistics relating to incidents occurring on the campuses of Northwest-Shoals Community College for the academic years September 1, 2015-August 31, 2017:
found to be in violation of the clean air policy will be subject to smoking product. All College employees, students, visitors and is defined to include any lighted cigarette (including electronic smoking instrument, in College buildings or upon other College premises or inside College-owned, rented or leased vehicles, is prohibited. For the purposes of this policy, a “tobacco product” is defined to include any lighted cigarette (including electronic cigarettes), cigar, pipe, bidi, clove cigarette, and any other smoking product. All College employees, students, visitors and contractors are required to comply with this policy, which shall remain in force at all times. Any College employee or student found to be in violation of the clean air policy will be subject to a monetary fine. Tickets will be issued by campus police officer for violations. Monetary fines will be imposed as listed below, depending on whether the offender is an employee or student. Any visitor or contractor found to be violating this policy shall be asked to discontinue the disallowed activity, and any failure by a visitor or contractor to discontinue the disallowed activity after being requested to do so shall result in the visitor or contractor being escorted off the college premises by campus police. NW-SCC will continue to uphold the current policy that the use of ALL tobacco products is prohibited in all buildings on each campus. Failure to adhere may result in the below listed fines.

Student fines
Any NW-SCC student found to have violated this policy shall be subject to the following fines: 1st ticket - Warning, 2nd ticket - $25.00 fine. All fines must be paid within 7 days of ticketing. Fines that are not paid within the 7 days shall automatically double in amount. A student who has a pending fine or fines may not register for classes nor have transcripts released until all fines are paid in full. Any student wishing to appeal a fine arising from the finding of a tobacco-free violation under this policy may do so with the Assistant Dean, Tom Carter.

Employee fines
Any NW-SCC employee found to have violated this policy shall be subject to the following fines: 1st ticket – Warning, 2nd ticket - $25.00 fine. All fines must be paid within 7 days of ticketing. Fines that are not paid within the 7 days shall automatically double in amount. Any employee wishing to appeal a fine arising from the finding of a violation of this policy may do so with the Vice President’s Office. With the exception of advertising in a newspaper, magazine, or similar publication that is not produced by NW-SCC, no tobacco-related advertising or sponsorship shall be permitted on college campuses or at college-sponsored events. No tobacco-related advertising or sponsorship shall appear in any publications produced by the College or by any club or association authorized by NW-SCC. For the purposes of this policy, the term “tobacco-related” applies to the use of a tobacco brand or corporate name, trademark, logo, symbol or motto, selling message, recognizable pattern of colors or any other indicia of product identification identical to or similar to, or identifiable with, those used for any brand of tobacco products or company which manufactures tobacco products.

Children on campus policy
Students, faculty and staff are expected to arrange childcare through personal means; however, special needs may arise for the control and placement of children during College activities. Unsupervised children on campus should be reported to Campus Safety or the appropriate supervisor. Children are expected to be under the direct supervision and control of the parent, guardian, or adult who has brought the child onto College property.

Students requesting a child be allowed to attend class should address the individual instructor. Each instructor will make the determination on the appropriateness of such attendance. This occurrence should not be routine and is discouraged to the extent possible. A child who is sick should not be allowed to attend class.

NW-SCC clean air policy
Northwest-Shoals Community College (NW-SCC) is committed to providing a safe and healthy environment for its employees, students and visitors. The College recognizes the right of persons to make their own decisions about their personal use of tobacco products away from the College. However, in light of findings of the U.S. Surgeon General that exposure to secondhand tobacco smoke and use of tobacco products are significant health hazards, it is the intent of the College to establish a smoke-free environment on its campuses and in its college-owned vehicles. Consequently, the use of tobacco smoking products, including the carrying of any lighted smoking instrument, in College buildings or upon other College premises or inside College-owned, rented or leased vehicles, is prohibited. For the purposes of this policy, a “tobacco product” is defined to include any lighted cigarette (including electronic cigarettes), cigar, pipe, bidi, clove cigarette, and any other smoking product. All College employees, students, visitors and contractors are required to comply with this policy, which shall remain in force at all times. Any College employee or student found to be in violation of the clean air policy will be subject to a monetary fine. Tickets will be issued by campus police officer

<table>
<thead>
<tr>
<th>Crime Classification</th>
<th>Shoals Campus 2015 2016 2017</th>
<th>PC Campus 2015 2016 2017</th>
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<tbody>
<tr>
<td>Murder</td>
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<tr>
<td>Rape</td>
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<tr>
<td>Weapons Violations</td>
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</table>

Please direct any questions or concerns regarding the College’s security policy to the Director of Safety and Security, Shoals Campus, telephone 256-331-5415. For Campus Crime Statistics see the internet at www.nwscce.edu/parking.

Substance abuse prevention policy
It is the College’s policy for all students and College personnel that the possession of, the distribution of, or the use of drugs and alcohol is prohibited. We are committed to providing a drug-free learning and working environment. We have included in our orientation credit course, which is required of all entering students, a section on drug awareness. The College has and shall maintain a drug-free awareness program as an in-service requirement (annually) to inform employees about:

A. the dangers of drug abuse in the workplace;
B. the College’s policy of maintaining a drug-free workplace;
C. any available drug counseling, rehabilitation, or employee assistance program; and
D. the penalties that may be imposed upon employees for drug abuse violations.

WARNING: As set out more fully in Section 5301 of the Anti-Drug Abuse Act of 1988, for anyone convicted of drug distribution or possession, the court may suspend eligibility for...
Title IV financial aid. Anyone convicted three or more times for drug distribution may become permanently ineligible to receive Title IV financial aid.

Philosophy

The College is concerned with both the welfare of the College community and with the academic and personal development of each student. The College strives to create a safe and healthy environment; one in which the high risk of alcohol and other drugs does not interfere with learning, performance and development. Substance abuse disrupts this environment and places at risk the lives and well-being of the members of the College as well as the potential of students for contribution to society. It is important for all members of the College to take responsibility for preventing the illegal or high risk use of alcohol or other drugs from negatively affecting the College’s learning environment and the academic physical and emotional well-being of its students.

The College assumes that students are mature adults who have developed mature behavior patterns, positive attitudes, and conduct above reproach. Students must assume responsibility for their own actions.

The College recognizes that the use of drug and alcoholic beverages poses potential risk to the health and safety of members of the College and to the community at large. The College policies and procedures regarding standards of conduct and enforcement; legal sanctions regarding unlawful use, possession or distribution; federal, state, and local ordinances; health risks, and where to get assistance are offered here to serve as a guide in Northwest-Shoals’ Drug and Alcohol Abuse Prevention Policy.

I. Policy

It is the policy of the College that during the month of September of each academic year, information regarding the College’s drug and alcohol abuse prevention policy shall be distributed to each student and employee of the College.

Each year, the Coordinator of Student Success shall review its Drug and Alcohol Abuse Prevention Program and shall:

1. Determine the effectiveness of its program and report to the President any revisions needed by the program to make it more effective;
2. Ensure that the standards of conduct described in Part II hereof are fairly and consistently enforced; and
3. Submit a written report to the President stating the findings and recommendations of the Team.

The President shall implement such of the Team’s recommended revisions as he shall deem appropriate and reasonable.

II. Standards of Conduct and Enforcement

The College is a public educational institution of the State of Alabama and, as such, shall not permit on its premises, or at any activity which it sponsors, the possession, use, or distribution of any alcoholic beverage or any illicit drug by any student, employee, or visitor. In the event of the confirmation of such prohibited possession, use, or distribution by a student or employee, the College shall, within the scope of applicable federal and state due process requirements, take such administrative or disciplinary action as is appropriate. For a student, the disciplinary action may include, but shall not be limited to, probation, suspension or expulsion. For an employee, such administrative action may include, but shall not be limited to, reprimand, or suspension, or termination of employment, or requirement that the employee participate in and/or successfully complete an appropriate rehabilitation program. Any visitor engaging in any act prohibited by this policy shall be called upon to immediately cease such behavior and/or leave the premises, be trespassed by Campus Safety or arrested.

If any employee, student, or visitor shall engage in any behavior prohibited by this policy which is also a violation of federal, state, or local law or ordinance, that employee, student, or visitor shall be subject to referral to law enforcement officials for arrest and prosecution.

III. Where to get Assistance

Help is available for persons who are in need of counseling or other treatment for substance abuse. Following are several agencies and organizations which can assist those in need of such services.

A. On-Campus Assistance

On-campus assistance is available at the College for students and employees of the College through the Division of Student Services on both the Phil Campbell and Shoals Campuses. The Campus Assistance Program offers initial assessment and counseling services, information on substance abuse, and assistance in obtaining off-campus community services. Services provided on-campus are free of charge to the student and/or employee. Costs for off-campus services are the responsibility of the recipient. Confidentiality is maintained in accordance with state and federal laws.

B. National Toll-Free Hotlines

1.800.622.2255
National Council on Alcoholism

C. Local Agencies and Referral Numbers

Northwest Alabama Mental Health Center
1100 7th Avenue
Jasper, Alabama 35501
205.387.0541

Satellites

Northwest Alabama Mental Health
71 Carraway Drive
Haleyville, Alabama 35565
205.486.4111

Northwest Alabama Mental Health
409 1st Street S.E.
Hamilton, Alabama 35570
205.921.2186

Bradford Health Services
1.800.879.7272
Policy on Freedom of Expression

The College respects the right to freedom of expression for individuals or groups within the College community. The College, however, does have an obligation to protect its facilities. For this reason it is the general policy of Northwest-Shoals Community College that no person, company, or other organization will distribute literature, post signs, sell merchandise, or promote religious, commercial, or political activities on the campus of this institution without first obtaining permission from the Assistant Dean. All requests must be in writing and submitted to the Assistant Dean at least five (5) business days before the event.

Circulating Petitions

Any Individual desiring to promote petitions of a political, religious, commercial, or other issue-oriented nature will be restricted to a designated area. Petitioning is restricted to one-day with a renewal option on a one-day basis.

Commercial, Political, Promotional, and Religious Activities

College facilities and off-campus sites for College activities may be used for commercial solicitation, advertising, political, promotional, and religious activities only when such activities are sponsored and requested by a college employee or an officially recognized student organization. These activities may not interfere with or operate to the detriment of the conduct of college affairs.

All political organizations or persons representing such will be provided space in a designated area. Political activity will be restricted to one-day with a renewal option on a one-day basis.

Distribution of Literature

Distribution of literature is limited to a specific area. A copy of literature to be distributed must be filed with the office of the Assistant Dean at least two days prior to distribution. All literature must bear the name of the sponsoring organization and/or person. Anonymous literature may not be distributed on campus. Distribution of literature will be limited to one-day and may be renewed on a one-day basis.

Guest Speakers

For the purposes of this handbook, guest speakers are persons invited to Northwest-Shoals Community College by a registered student organization or for the purpose of addressing a college audience. The President of the College has the authority to cancel any speaking engagement when the appearance is deemed to constitute a clear and present danger to the orderly operation of the institution. The College has set up the following procedure for guest speakers.

Registered student organizations must obtain the approval in writing of the club advisor and the Assistant Dean when sponsoring a guest speaker. The organization must obtain and submit the required approval form to the Assistant Dean before submitting an invitation to the speaker. Responsibility for the selection of appropriate speakers rests with the student organization. When questions of appropriateness are involved, the club advisor and the student organization should confer with the Assistant Dean.

No publicity concerning speakers may be released before approval of a guest speaker has been given by the Assistant Dean and the event has been scheduled on the college calendar. Room arrangements for meeting with speakers must be made in the Office of the President. In keeping with the traditions of the community college, guest speakers should, if at all possible, allow a reasonable opportunity to receive and answer questions from the audience.

The speaker alone is responsible for the views presented in his or her address. Invitation to speakers to speak on campus does not necessarily imply the approval of the expressed views by the sponsoring group, the College, or any official of the College.

News Releases and Off-Campus Publicity

News releases and off-campus publicity regarding upcoming events on campus must be submitted to the Public Relations Office at least three weeks prior to the date of the event.

Poster Registration and Television Monitor Ads

Only student organizations chartered by the College or groups authorized by the College administration may advertise through posters and literature.

An exception will be student elections, for which candidates may advertise one week prior to election day. This gives the candidate an opportunity to campaign and present their platform to the student body.

Posters or literature may be placed on campus at locations approved by the Assistant Dean.

Signs, posters, or literature are prohibited from:

- Restrooms
- Glass panels, windows, doors and ceilings
- Library buildings
- Any surface that could be damaged by tape or tacks

No flyers or pamphlets should be distributed on campus without the approval of the Assistant Dean.

Under no circumstances may materials be distributed on windshields of vehicles.

All posters that relate to students must be approved by the Assistant Dean. All posters that are to be displayed must bear a stamp indicating approval. Unregistered posters, signs, announcements, etc. are subject to removal. The recommended poster size is 11” x 17”; however, larger posters will be allowed if permission is granted. Appearance of all posters, signs, etc. will be expected to exemplify the members’ interest in an organization and the function which they are advertising. Lettering will be expected to be clear and uniform, permitting easy readability. The College reserves the right to refuse to register a poster, sign, etc. which is deemed inappropriate for public display.

Event posters should be displayed for a period not to exceed seven days before the event which they publicize. All posters should be removed by 1:00 p.m. the afternoon following the advertised event. In case of weekend functions, all posters...
should be removed by 1:00 p.m. the following Monday. Nonevent posters also have a seven-day limit.

**Use of College Equipment or Facilities**

Individuals are prohibited from unauthorized use of the College’s equipment or facilities. Equipment may include but is not limited to copiers or duplicating equipment. Authorization for such must be secured through the Vice President’s Office.

**Policy on Intellectual Property Rights**

Based upon the State Board of Education policy 321.01: copyright, Trademark, and Patent Ownership, it is the policy of NW-SCC that in a situation where a student or college employee develops an intellectual property, and such development arises in whole or in part from the use of college resources (including the work time of any college employee), the College shall have complete and exclusive ownership of all resulting copyrights and/or patents. However, it shall be the policy of NW-SCC that in such a situation, the employee/student who develops the textbook, workbook, technology, or other product shall be entitled to a designated share of any royalties or license fees received by the College from such a copyright or patent, provided that prior to the development of the respective product, there shall be a contract executed between NW-SCC and the employee by which the employee will be authorized to use the resources of NW-SCC in the product’s development. In particular, the contract shall specify:

A. The nature, scope, type, and number of NW-SCC resources which are anticipated to be used in the product’s development.

B. The proportionate share of royalties or fees which the employee/student shall be eligible to receive and shall further specify the types of documentation to be provided to the College as to what College resources were used and what outside resources were used to develop the product.

C. That the portion of any royalties or fees to be received by the employee/student must have a direct relationship to the verifiable amount of the employee’s/student’s personal time, resources, and/or funds which are to be used in the product’s development, as compared to the verifiable amount of all time, resources, and funds to be devoted to the development of the product.

D. That any compensation to the employee/student arising from the development of the product must be made from proceeds derived directly from the publication, manufacture, sale, lease, or distribution of the products, and not from any State or Federal funds.

E. That the contract does not provide an exemption from, and does not imply compliance with, the Alabama Ethics Law, and that it shall be subject to the scrutiny of the Alabama Ethics Commission, which shall be provided with a copy of the contract.

F. That prior to the payment of any compensation to any college employee/student under a contract of the type described above, such contract or payment must be approved in writing by the appropriate dean level administrator.

All revenue derived from the creation and production of intellectual property by any NW-SCC employee/student, which is not designated as the employee/student share, shall be placed into the College’s general fund to cover the cost of the College resources which were used in the development of the product.

Any NW-SCC employee/student who is interested in entering into an agreement with the College for the development of any intellectual property subject to this policy shall begin the process by submitting to the appropriate dean a written proposal which describes in detail the proposal, and which contains a list of all anticipated college resources needed for the development of the product as well as all resources to be provided by the employee or any other person or source other than the College.

**PC Network/Internet Acceptable Usage Policy**

**Introduction**

The College owns and operates a variety of computing systems which are provided for the use of College students, faculty, and staff in support of the programs of the College and are to be used for education, academic development, and public service only. Commercial uses are specifically excluded. All students, faculty and staff are responsible for seeing that these computing facilities are used in an effective, efficient, ethical, and lawful manner.

These regulations establish rules and prohibitions that define acceptable use of these systems. Unacceptable use is prohibited, and is grounds for loss of computing privileges, as well as discipline or legal sanctions under Federal, State, and local law.

**Statement of Policy**

**A. Audience and Agreement**

1. All users of the College computing systems must read, understand, and comply with the policies outlined in this document, as well as any additional guidelines established by the administrators (AS400 and PC Network) of each system. Such guidelines will be reviewed by the College and may become subject to approval as a college policy or procedure.

2. By using any of these systems, users agree that they will comply with these policies.

**B. Rights**

1. These computer systems, facilities, and accounts are owned and operated by the College. The College reserves all rights, including termination of service without notice, to the computing resources that it owns and operates. These procedures shall not be construed as a waiver of any rights of the College, nor shall they conflict with applicable acts of Law.

2. Users have rights that may be protected by federal, state, and local law.

**C. Privileges**

1. Access and privileges on College computing systems are assigned and managed by the appropriate system administrator. Eligible individuals may become authorized users of a system and be granted appropriate access and privileges by following the approval steps prescribed for that system.
2. Faculty/staff and students may use a lab at any time the facility is not in use. If the lab is in use the permission of the instructor should be obtained. A faculty/staff member or a student should not use a lab if the use monopolizes equipment or disrupts the scheduled use of the facility.

3. Faculty making assignments requiring students to use a computer (other than classes already scheduled) must make arrangements with the appropriate system administrator.

D. Responsibilities
1. Users are responsible for maintaining the following:
   a) An environment in which access to all College computing resources are shared equitably among users:
   b) The system administrator of each system sets minimum guidelines within which users must conduct their activities.

2. An environment conducive to learning:
   a) A user, who uses the College’s computing systems to harass, or make defamatory remarks, shall bear full responsibility for his or her actions. Further, by using these systems, users agree that individuals who transmit such remarks shall bear sole responsibility for their actions. Users agree that the College’s role in managing this system is only as an information carrier, and that they will never consider transmission through this system as an endorsement of said transmission by the College.
   b) Many of the College computing systems provide access to outside networks both public and private which furnish electronic mail, information services, bulletin boards, conferences, etc. Users are advised that they may encounter material that may be considered offensive or objectionable in nature or content. Users are further advised that the College does not assume responsibility for the contents of any of these outside networks.
   c) The user agrees to comply with the acceptable use guidelines for whichever outside networks or services they may access through College systems.
   d) Further, the user agrees to follow proper etiquette on outside networks. Documents regarding etiquette are available through system administrators and through specific individual networks.
   e) The user agrees never to attempt to transmit, or cause to be transmitted, any message in which the origination is deliberately misleading.
   f) The user agrees that, in the unlikely event that someone does transmit, or cause to be transmitted, a message that is inconsistent with an environment conducive to learning or with a misleading origination, the person who performed the transmission will be solely accountable for the message, not the College, which is acting solely as the information carrier.

3. An environment free of illegal or malicious acts:
   a) The user agrees never to use a system to perform an illegal or malicious act. Any attempt to increase the level of access to which (s)he is authorized, or any attempt to deprive other authorized users of resources or access to any College computer system shall be regarded as malicious, and may be treated as an illegal act.

4. A secure environment:
   a) Any user who finds a possible security lapse on any system is obliged to report it to the system administrators. The system must not be used until the system administrator has investigated the problem.
   b) Knowledge of passwords or of loopholes in computer security systems shall not be used to damage computing resources, obtain extra resources, take resources from another user, gain unauthorized access to resources or otherwise make use of computing resources for which proper authorization has not been given.
   c) Users are responsible for backup of their own data.

E. Accounts
1. All accounts allowing access to the College computer resources must approve by the appropriate system administrator including the issuing of passwords.

2. In the event an individual is no longer employed by the College it is the responsibility of the employee’s supervisor to notify the appropriate system administrator to close the former employee’s account.

3. Users may not, under any circumstances, transfer or confer these privileges to other individuals. Others shall not use any account assigned to an individual without written permission from the system’s administrator. The authorized user is responsible for the proper use of the system, including any password protection.

F. Confidentiality
The College reserves the right to access all information stored on College computers without notice. File owners will be notified of file access and/or maintenance, in advance, if such notice is practical. When performing maintenance, every effort is made to ensure the privacy of a user’s files. However, if policy violations are discovered, they will be reported immediately to the appropriate systems administrator.

G. System Usage
Electronic communications facilities (such as e-mail) are for College related activities only. Fraudulent, harassing or obscene messages and/or materials are not to be sent or stored.

H. System Performance
No one should deliberately attempt to degrade the performance of a computer system or to deprive authorized personnel of resources or access to any College computer system.

I. Unauthorized Access
Loopholes in computer security systems or knowledge of a special password should not be used to damage the computer system, obtain extra resources, take resources from another user, gain access to systems or use systems for which proper authorization has not been given.
J. Copyright

Computer software protected by copyright is not to be copied from, into, or by using campus computing facilities, except as permitted by law or by the contract with the owner of the copyright.

Peer-to-Peer file sharing is prohibited by Northwest-Shoals Community College.

College networks and equipment may not be used to violate copyright laws. The unauthorized reproduction of copyrighted materials, including illegal downloading or sharing of copyrighted music, movies, books, etc., is a serious violation of NW-SCC’s Network Usage Policy as well as U.S. Copyright Laws.

Summary of Civil and Criminal Penalties for violation of Federal Copyright Laws

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or “statutory” damages affixed at not less than $750 and not more than $30,000 per work infringed. For “willful” infringement, a court may award up to $150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys’ fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to $250,000 per offense.

For more information, please see the Web site of the U.S. Copyright Office at www.copyright.gov, especially their FAQ’s at www.copyright.gov/help/faq.

K. Violations

Appropriate disciplinary action will be taken against individuals found to have engaged in prohibited use of the College AS400 or PC network/internet resources. The following sanctions could be imposed for a violation of any of the policies and procedures stated herein.

1. Immediate loss of access.
2. Additional disciplinary action to be determined by the college in line with existing policies.
3. Legal action, when applicable.

L. Additional Guidelines

System administrators will establish more detailed guidelines, as needed, for specific computer systems and networks. These guidelines will cover such issues as allowable connect time and disk space, handling of unretrievable mail, responsibility for account approval and other items related to administering the system.

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Violence Against Women’s Act Policy

Northwest-Shoals Community College follows the regulations of the Violence Against Women Reauthorization Act (“VAWA”) under the Campus Sexual Violence Act (“SaVE Act”) provision, Section 304.

Under VAWA, Northwest-Shoals Community College requires:

- Reporting of domestic violence, dating violence, and stalking, beyond crime categories the Clery Act already mandates;
- Adopting certain student discipline procedures, such as for notifying purported victims of their rights; and
- Addressing and preventing campus sexual violence.

VAWA’s SaVE Act requires annual reporting of statistics for various criminal offenses, including forcible and non-forcible sex offenses and aggravated assault. VAWA’s SaVE Act provision adds domestic violence, dating violence, and stalking to the categories that, if the incident was reported to a campus security authority or local police agency, must be reported under Clery.

Parsed for clarity, these offenses are defined:

1. “Domestic violence” includes asserted violent misdemeanor and felony offenses committed by the victim’s current or former spouse, current or former cohabitant, person similarly situated under domestic or family violence law, or anyone else protected under domestic or family violence law.
2. “Dating violence” means violence by a person who has been in a romantic or intimate relationship with the victim. Whether there was such relationship will be gauged by its length, type, and frequency of interaction.
3. “Stalking” means a course of conduct directed at a specific person that would cause a reasonable person to fear for her, his, or others’ safety, or to suffer substantial emotional distress.

In addition, prevention training is provided for students in the College’s Student Success class as well as mid-day seminars throughout the semester.

Sexual Harassment

Definition: Sexual harassment is a violation of Title IX of the 1972 Education Act. Sexual harassment consists of any unwelcome verbal or physical conduct of a sexual nature where submission to such conduct is an explicit or implicit term or condition of employment. Sexual harassment is defined as any behavior of a sexual nature that denies, limits or adversely affects the emotional well being or academic progress of any student enrolled at this institution. In addition, any unwelcome sexual conduct that unreasonably interferes with an individual’s performance or creates an intimidating, hostile or offensive working environment can constitute sexual harassment even if it leads to no tangible or economic job consequences. This may include the viewing of sexually offensive web sites on the internet while on College property or in a College sponsored program.

Sexual harassment under any of the above definitions is a violation of school policy at the College and will not be ignored, tolerated, or condoned. The College administration will take all
necessary steps to insure that sexual harassment, in either the hostile environment or “quid pro quo” forms, does not occur on campus or at any event/activity sponsored by this College. This policy applies to all members of the College community. Students of the College community are encouraged to promptly report complaints about sexual harassment to the Title IX Coordinator.

Sexual Assault

It is the policy of the College that no student or employee may threaten the health and safety of a member of the College community, of any person on College property, or at a College sponsored or supervised activity, through the commission of sexual assault, including acquaintance/date rape.

Definition: The College recognizes and adopts the definition of rape as defined in the Alabama Criminal Code. Additionally, the College acknowledges acquaintance rape in its definition of sexual assault. Acquaintance rape is defined as forced, manipulated or coerced sexual intercourse by a friend or an acquaintance. It is an act of violence, aggression and power in which a victim under protest is forced to have sex through verbal coercion, threats, physical restraints, and/or physical violence.

Consideration and rights to be afforded to all campuses community members who are victims of sexual assault:

a. The right to have all sexual assaults against them treated with seriousness, and the right, as victim, to be treated with dignity;

b. The right to have sexual assaults committed against them investigated and adjudicated by the duly constituted criminal and civil authorities of the governmental entity in which the crimes occurred, and the right to the full and prompt cooperation and assistance of campus personnel notifying the proper authorities;

c. The right to be free from pressure that would suggest that the victim: (i) not report crimes committed against them to civil and criminal authorities or to campus law enforcement and disciplinary officials; or (ii) report crimes as lesser offenses than the victim perceives them to be;

d. The right to be free from suggestions that sexual assault victims not report, or under-report, crimes because:

(1) Victims are somehow “responsible” for the commission of crimes against them,

(2) Victims were contributively negligent or assumed the risk of being assaulted; or

(3) By reporting crimes they would incur unwanted personal publicity.

e. The right to the full and prompt cooperation from campus personnel in responding to the incident; and

f. The right to access counseling services established by the College.

Consideration and additional rights to be afforded to campus community members who are victims of sexual assault which occur on college property. After campus sexual assaults have been reported, the victims of such crimes shall have:

a. The right to require that campus personnel take the necessary steps or actions reasonably feasible to prevent unwanted contact or proximity with alleged assailants;

b. The right to be informed of the disciplinary proceedings as well as the outcome of such proceedings; and

c. The same right to assistance, or ability to have others present, which is afforded to the accused during any campus disciplinary proceedings.

Disciplinary Action: In addition to any criminal or civil actions which may be pending or in process, the College reserves the right to pursue separate disciplinary action. Persons found responsible for sexual assault may expect disciplinary actions up to and including dismissal from the College. Policies and procedures contained in the Student Code of Conduct will be followed in all disciplinary procedures.

The College provides programs to promote awareness of rape, including acquaintance/date rape. Guest speakers such as doctors, law enforcement officers, and crime victim’s assistance are invited to campus to speak to students in both small and large group settings. Mandatory residence hall meetings and videos are used to increase awareness.

Responding to Sexual Assault Cases

1. Immediate Response: College personnel are willing and able to assist victims of sexual assault. The Assistant Dean and the Chief of Campus Safety should be contacted immediately.

2. Delayed Reports: Victims often delay disclosing information to others about their sexual assault. When a delayed report occurs and the victim is a student, he/she may be referred to the Counseling Center for personal counseling and assistance in reporting the assault to the proper authorities.

3. The Assistant Dean will ensure that the consideration and rights to be afforded victims of sexual assault, as detailed in the College Sexual Assault Policy, are met. An effort will be made to have two College officials respond to the victim as soon as possible. This will allow one person to provide support and counsel, while the other person contacts appropriate individuals or agencies as needed.

4. All victims of sexual assault will be assisted in contacting appropriate legal authorities or service agencies (see below). Depending on the nature of the situation (i.e., physical and mental condition of the victim, immediacy of incident) and with the input of the victim, one or more of the following entities will be contacted as soon as possible but prior to the College officials leaving the assault victim:

a. Rape Response Inc. - Phone 256.767.1100

b. Police Departments
   - Campus Security Main Office - 256.627.1526
   - Muscle Shoals - 256.383.6746
   - Tuscumbia - 256.383.3121
   - Phil Campbell - 205.993.5313
   - Colbert County Sheriff - 256.383.0741 or 256.386.8550
   - Franklin County Sheriff - 256.332.8811

Northwest-Shoals Community College 2019-2020
Students who believe that special instructional accommodations should be made for them due to a disability should obtain an Accommodations Request Form from the ADA Coordinator, 256.331.5262. Information regarding special accommodations is also included in each course syllabus. It is the student’s responsibility to request accommodations. Documentation of need for accommodation may be required. The College will make every effort to provide reasonable accommodations. Contact the ADA Coordinator for more information, 256.331.5262 or 256.331.6261

Criteria for Disability Documentation

The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the technical and academic standards at Alabama Community College institutions are entitled to reasonable accommodations. Under these laws, a disability is defined as any physical or mental impairment which substantially limits a major life activity, a history of such an impairment, or the perception of such an impairment. Alabama Community College System institutions do NOT provide disability documentation for students. It is the student’s responsibility to request accommodations and to provide appropriate documentation to the College office responsible for handling the request. Appropriate documentation is defined as that which meets the following criteria:

Health Condition, Mobility, Hearing, Speech or Visual Impairment

A letter or report from treating physician, orthopedic specialist, audiologist, speech pathologist, ophthalmologist, or other specialist as appropriate, to include the following:

1. clearly stated diagnosis;
2. defined levels of functioning and any limitations;
3. current treatment and medication; and

Psychological Disorder

A letter or report from a mental health professional (psychologist, neuropsychologist, licensed professional counselor), to include the following:

1. clearly stated diagnosis (DSM-IV criteria),
2. defined levels of functioning and any limitations;
3. supporting documentation (i.e. test data, history, observations, etc.);
4. current treatment and medication; and
5. current letter/report, dated and signed.

Traumatic Brain Injury (TBI)

A comprehensive evaluation report by a rehabilitation counselor, speech-language pathologist, orthopedic specialist, and/or neuropsychologist (or other specialist as appropriate), including:

1. assessment of cognitive abilities, including processing speed and memory;
2. analysis of educational achievement skills and limitations (reading comprehension, written language, spelling, and mathematical abilities);
3. defined levels of functioning and limitations in all affected areas (communication, vision, hearing, mobility, psychological, seizures, etc.);
4. current treatment and medication; and
5. current letter/report, post-rehabilitation, dated and signed.
Learning Disabilities
A comprehensive evaluation report from a clinical psychologist, psychiatrist, neuropsychologist, school psychologist, learning disability specialist, or diagnostician, including:
1. clear statement of presenting problem; diagnostic interview;
2. educational history of documenting the impact of the learning disability;
3. alternative explanations and diagnoses are dismissed;
4. relevant test data with standard scores are provided to support conclusions, including at least: (a) WAIS-R; (b) Woodcock-Johnson Psycho-educational Battery-Revised, including Written Language; (c) Woodcock-Johnson Cognitive Processing Battery to substantiate any processing problems;
5. clearly stated diagnosis of a learning disability based on DSM-IV criteria;
6. defined levels of functioning and any limitations, supported by evaluation data; and
7. current report, dated and signed.

Note: High School IEP, 504 Plan, and/or a letter from a physician or other professional will not be sufficient to document a learning disability.

Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD)
A comprehensive evaluation report from a physician, psychiatrist, clinical psychologist, neurologist, or neuropsychologist, including:
1. clear statement of presenting problem; diagnostic interview;
2. evidence of early and current impairment in at least two different environments (comprehensive history);
3. alternative explanations and diagnoses are ruled out.
4. relevant test data with standard scores are provided to support conclusions, including at least: (a) WAISR; (b) Woodcock-Johnson Psycho-educational Battery-Revised including Written Language; (c) Behavioral Assessment Instruments for ADD/ADHD formed on adults;
5. clearly stated diagnosis of ADD or ADHD based on DSM-IV criteria;
6. defined levels of functioning and any limitations, supported by evaluation data; and
7. current report, dated and signed.

Note: High School IEP, 504 Plan, and/or letter from a physician or other professional will not be sufficient to document ADD or ADHD. Medication cannot be used to imply diagnosis.

Providing Services for Students with Disabilities
Services and reasonable accommodations are provided pursuant to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The Alabama Community College System is committed to working with individuals with disabilities. It is a goal of the Alabama Community College System to ensure that students with disabilities have the programmatic and architectural accesses needed for integration into campus life. All applicants must meet the academic and technical standards requisite to admission or participation in programs and/or activities at Alabama Community College System institutions. Alabama Community College System institutions will not reduce standards in the grading and/or evaluation of students. Academic requirements that are determined by Northwest-Shoals Community College to be essential or fundamental will not be modified.

Alabama Community College System institutions strive to eliminate barriers to learning or participation in other institutional activities, and provide the following services for students and faculty:
- screening of disability documentation;
- determination of appropriate accommodations;
- communication with faculty and/or staff regarding student needs; and
- referral to other available campus and/or community resources.

Providing reasonable accommodations for students with disabilities requires an individual assessment of need and is a problem solving process. Specific accommodations depend upon the nature and requirements of a particular course or activity and the skills and functional abilities of a particular student. Appropriate accommodations may include:
- extended time on exams;
- permission to tape lectures;
- change in test format;
- priority registration;
- enlarged print/graphics;
- textbooks on tape;
- handouts of overhead materials;
- removal of structural barriers;
- class note taker;
- use of spell check;
- extra time for assignments; or
- alternative evaluation methods.

Students with disabilities are responsible for informing the College about the disability and the need for reasonable accommodation. This should be done prior to or upon enrollment at the College. Students must furnish adequate documentation of their disabilities from medical or other appropriate professionals in order to substantiate the need for services.

Contact Information
Tom Carter Assistant Dean of Recruitment, Admissions and Financial Aid
256.331.5263
Student Rights, Responsibilities and Campus Standards

Student Conduct

The College assumes that entering students are mature adults who have developed mature behavior patterns, positive attitudes, and conduct above reproach. Students are treated in accordance with this behavior. The College reserves the right to dismiss any student whose on or off-campus behavior is considered undesirable or harmful to the College.

For the protection and convenience of all students and the community, regulations prohibit misconduct on the campus and in the classroom. Students participating in any unauthorized mass demonstration, or whose presence and/or actions constitute or abet a general disturbance, or who fail promptly to obey any order to disperse given by any College official are subject to immediate suspension from the College. A reasonably quiet environment shall be maintained at all times in and around College buildings.

Students conducting themselves in such a manner as to disturb or disrupt a class will be told by the instructor to leave the classroom. The student may return to class as soon as he/she is capable of conducting himself/herself as a mature adult. However, the second such offense would require the student to meet with the Assistant Dean and could result in charges being brought against the student. Charges against a student must be resolved by a formal due process hearing. NW-SCC will uphold a disciplinary suspension from another College/institution. Potential students that are currently on disciplinary suspension from another college/institution must have a disciplinary hearing prior to admission to the College.

Code of Student Conduct

The publication of this Code of Student Conduct documents the standard of conduct by which students and organizations are expected to abide. Students and organizations shall be aware of the College Code and knowledgeable of the fact that they will be held accountable for compliance with its provisions. By enrollment at and affiliation with the College, a student or organization neither relinquishes the right nor escapes responsibilities of local, state, or federal laws and regulations. The College is committed to maintaining an environment that contributes to its educational mission as well as the safety, health, and well-being of all students and other persons on campus. Therefore, students and organizations are obligated to abide by the rules and policies established by the College.

It is assumed that students enrolling in the College are mature and have a desire for constructive learning and are attending with that purpose in mind. Common courtesy and cooperation are expected of all students. Interference, injury, or the intentional attempt to injure or interfere with the personal or property rights of any person—whether a student, visitor, faculty or staff member—or the College itself, is strictly prohibited.

Where there has been a serious violation of College regulations and a student’s continued presence will materially threaten the welfare of the College, the President’s designated representative, may immediately suspend the student. The student shall be entitled to a hearing according to the regular disciplinary procedures.

Application

The Code of Student Conduct applies to individual students as well as formal and informal groups either involved in College-related activities or functioning as official representative(s) of the institution. It is applicable to the behavior of students and organizations, both on and off the College campus, which is determined to be incompatible with the educational environment and mission of the College.

Misconduct

Academic Misconduct

The College seeks to promote an atmosphere conducive to learning. Academic misconduct undermines the purpose of education. Such behavior is a violation of the trust between the students and faculty that must exist for the College to cultivate intellectual growth. Academic misconduct consists of:

1. Any form of dishonesty, including cheating on an exercise, test, problem, or examination submitted by a student to meet course requirements. Cheating includes the use of unauthorized aids (such as crib sheets, written materials, drawings, lab reports, discarded computer programs, the aid of another instructor on a take-home test, etc.), copying from another student’s work, soliciting, giving and/or receiving unauthorized aid orally or in writing, or similar action contrary to the principles of academic honesty.

2. Plagiarism on an assigned paper, theme, report, or other material submitted to meet course requirements. Plagiarism is the act of stealing and using the ideas or writings (phrases or passages) from another and using them as one’s own, without indicating that source.

3. Use of texts or papers prepared by commercial or noncommercial agents and submitted as student’s own work.

4. Violation of any College honor code or confidentiality agreement.

It is recognized that most matters involving academic dishonesty should be handled by the faculty member meeting with the students involved who are in their classes. Consequently, sanctions are determined by the faculty member. “F” on an assignment or test, “F” in the course, a stipulation that an assignment or test be redone or retaken, and similar actions. A student dissatisfied with such a sanction may appeal through the existing appeal process. (See Grade Appeal Procedures)

General Misconduct

The College expects the conduct of each student and organization to be in conformity with standards of common decency and decorum, with recognition of and respect for personal and property rights of others and the educational mission of the College. A student or organization may be disciplined and is in violation of the Code of Student Conduct for the following:

1. The College reserves the right to dismiss any student whose on or off-campus behavior is considered undesirable or harmful to the College.
2. Any student that is a registered sex offender must register with the Chief of Campus Police before attending class.

3. Forgery, alteration, or misuse of College documents, records, or identification;

4. Issuance of worthless checks made payable to the College;

5. Failure to comply with the authority of College officials acting within the capacity and performance of their positions may be considered disorderly conduct;

6. Violation of written College rules, policies, and regulations; (i.e. use of bottled or canned drinks, food or tobacco products in classroom);

7. Obstruction or disruption of teaching, research, administration, disciplinary procedures, other college activities, or other activities on college premises being conducted by either college or non-college persons or groups; specifically, car radios, or similar equipment must be turned down so they cannot be heard outside of the vehicles (cote Tuscaloosa ordinance). Additionally, students may not have cell phones or beepers ringing in class;

8. Burglary, theft, destruction, damage, or misuse of college, public, or private property (the student or organization is responsible for any damage done to property);

9. Conduct in violation of federal or state statutes or local ordinances which threaten the health and/or safety of the college community or adversely affects the educational environment of the College.

10. Conviction of any misdemeanor or felony which adversely affects the educational environment of the College;

11. Obtaining college services by false pretenses including, but not limited to, misappropriation or conversion of college funds, supplies, equipment, labor, material, space, facilities, or services;

12. Hazing, i.e., any mental or physical requirement or obligation placed upon a person by a member of any organization, by an individual, or by a group of individuals which could cause discomfort, pain, or injury, or which violates any legal statute or college rule, regulation, or policy. Hazing has been defined as, but not limited to, the striking, laying open hand upon, treatment with violence, or offering to do bodily harm to a person with intent to punish or injure the individual, or other treatment of a tyrannical, abusive, shameful, insulting or humiliating nature. Hazing is an action taken or situation created to produce mental or physical discomfort, embarrassment, harassment, or ridicule. Hazing is also considered to include the creation of a situation which results in or might result in mental or physical discomfort, embarrassment, harassment or ridicule, including servitude often called “personal favors.” Activities of this nature shall be dealt with promptly and sternly;

13. Lewd, indecent/immodest, obscene or unduly offensive behavior or expression. This offense includes, but is not limited to the wearing of attire; the usage of verbal, written or symbolic expressions; or behavior which would tend to be reasonably interpreted as insulting to one’s race, gender, religion, age, national origin or disability and/or is in the opinion of the administration of the College to the extent that it would tend to disrupt the educational process and infringe upon the rights of any other student or employee of the College.

NOTE: The College does not promote or condone the loading and/or display of pornographic, religious, sacrilegious, satanic, nor any other text or graphic that may be deemed offensive on its computer systems. Individuals loading such software, text, or graphics are subject to the disciplinary rules of the College.

14. WEAPONS POLICY - No person shall keep, use, possess, display, or carry any rifle, shotgun, handgun, knife, bow and arrow, or other lethal or dangerous weapons or devices capable of casting a projectile by air, gas or explosion, or mechanical means on any property or in any building owned or operated by Northwest-Shoals Community College or in any vehicle on campus. Realistic facsimiles of weapons are also not allowed.

If an instructor approves such items to be demonstrated for class purposes only, the instructor and student must obtain permission from Campus Police.

Any such person seen with or using such weapons on campus will be subject to disciplinary and criminal charges.

Firearms are prohibited on campus or any other facility operated by the College. Exceptions to this policy are: Law enforcement officers legally authorized to carry such weapons who are officially enrolled in classes or are acting in the performance of their duties or an instructional program in which firearms are required equipment. If the off-duty officer is a student, he/she must notify campus police once a semester. A weapon is prohibited from any type of hearing for personal business.

15. Possession, sale, and/or consumption of alcoholic beverages or non-prescribed, controlled drugs on College property or at a student or College-sponsored function;

16. Being under the influence of alcoholic beverages or non-prescribed, controlled drugs on college property or at a student or college-sponsored function;

17. Unauthorized manufacture, sale, delivery, or possession of any drug or drug paraphernalia defined as illegal under local, state, or federal law;

18. Filing a false report or knowingly making a false statement about or interfering with the investigation of any situation described in this conduct code;

19. Physical or verbal abuse, threat of violence, intimidation, and physical or mental harassment;

20. Trespassing or unauthorized entry;

21. Entering false fire alarms, tampering with fire extinguisher, alarms, or other equipment;

22. Placement, establishment, or maintenance of any mobile, impermanent, or temporary living quarters on property of the College;

23. Any form of gambling;

24. Disruptive or disorderly conduct which interferes with the rights and opportunities of those who attend the College to utilize and enjoy educational facilities;
25. Any other activity or conduct not specifically stated herein which impairs or endangers any person, property, or the educational environment of the College.

Violations of any of the above will render a student subject to disciplinary action under the procedures which provide for adequate notice and a fair hearing, outlined in this catalog. Penalties for violations may include: reprimand; probation; loss of privileges; suspension; expulsion; and other penalties which may be set forth in college regulations published in this catalog.

Cellular Phones and Pagers

Cellular phones and pagers shall be turned off in classrooms and laboratories.

Misconduct Disciplinary Procedures

Any case involving violation of published policies and regulations in this bulletin will be brought to the immediate attention of the Assistant Dean, who will discuss the case with the student, attempting to arrive at a mutually satisfactory conclusion of the matter. If a satisfactory conclusion is not reached at this point, the student may appeal the case to the Disciplinary Committee.

The Disciplinary Committee; or a similarly functioning group, is authorized to hear the student appeal and may choose to modify, uphold, or reverse the written recommendations of the Assistant Dean in this case. It is important to note that in the chronology of events, the student receives a copy of these recommendations first in his or her initial meeting with the Assistant Dean. His or her decision to appeal will be based on disagreement with these recommendations. After appeal to the Disciplinary Committee, the Assistant Dean will ensure that the student is granted due process through the following steps:

1. written notice will be provided the student at least three calendar days in advance of the hearing date. Further, the student will be given a list of witnesses and a copy of their statements or complaints, along with other evidence and affidavits which the College intends to submit against the student;
2. the student is permitted to have counsel present at the hearing to advise him or her. Attorneys are present in advising capacity only.
3. the student is permitted to hearing the evidence presented against him or her and will be permitted the opportunity to present his or her own case, his or her own version of the incident, and any exhibits, affidavits, or witnesses on his or her behalf;
4. a full and complete record of the hearing will be made. Unless otherwise specified, a videotaped record will be used; and
5. the Disciplinary Committee will provide a written decision to the student and the Assistant Dean.

6. if the student disagrees with the decision of the College Disciplinary Committee, he or she may appeal that decision to the College President. Each appeal must be submitted in writing. A copy of all written documents is archived on file in the Assistant Dean’s office.

Final local responsibility for discipline is vested in the President of the College. Any disciplinary probation or suspension will be recorded on the student’s permanent record.

The College seeks to guarantee that the fundamental principles of fair play are observed and to assure that no disciplinary action is taken on grounds which are not support by substantial evidence.

Conscious effort is made to assure that all of the College’s regulations are within the scope of the lawful missions of tax-supported higher education. It is recognized that it is not a lawful mission of the College to prohibit the exercise of a right guaranteed by the Constitution or a law of the United States. However, the President will take direct and appropriate action in any case involving the integrity of the College and the well-being of the students.

SANCTIONS

A student or organization deemed to be in violation of the Code of Student Conduct by the Assistant Dean is subject to one or more of the following sanctions:

- **Reprimand.** A written notice that continuation or repetition of improper conduct may be cause for further disciplinary action.
- **Restitution.** Compensation for damages to property limited to the actual cost of repair or replacement.
- **Probation.** This sanction is for a designated period of time which may include exclusion from privileges such as extracurricular activities and/or on-campus driving privileges. Additionally, if the student or organization is determined by any of the disciplinary procedures herein set out to be in subsequent violation of the Code of Student Conduct during the probationary period, the student or organization may be either suspended or expelled.
- **Suspension.** Separation from the College for a definite period of time. To qualify for readmission after suspension from the College, approval must be secured from the College Disciplinary Committee.
- **Expulsion.** An indefinite termination of student or organization status from the College. Under certain conditions, expulsion could mean permanent severance from the College. To qualify for readmission after expulsion, approval must be secured from the College Disciplinary Committee.

**DISCIPLINARY COMMITTEE COMPOSITION AND RESPONSIBILITIES**

1. The College Disciplinary Committee shall consist of three faculty members and staff as appropriate.
2. The College Disciplinary Committee shall be chaired by a member of the Student Development staff appointed by the President of the College.
3. A quorum will consist of three committee members. Business may not be conducted without a quorum.
4. All College Disciplinary Committee hearings shall be confidential and closed to all persons except the following:
   a. The student or organization;
   b. Counsels;
   c. Witnesses who shall:
      i. Give testimony singularly and in the absence of other witnesses;
      ii. Leave the committee meeting room immediately upon the completion of the testimony.
All hearings will be videotaped. The video record will become the property of the College and access to them will be determined by the Vice President. All hearing case files will be located and archived in the Assistant Dean office.

5. The decision reached by the Disciplinary Committee will be by a majority vote. The Chairperson will vote only in case of a tie vote.

6. Within five (5) working days after the decision has been reached by the committee, The Chairperson of the College Disciplinary Committee shall send a certified letter to the student or organization’s last known address to provide written notification of the committee’s decision.

7. Copies of decisions and recommendations from the College Disciplinary Committee shall be forwarded to the appropriate administrator.

PROCESS OF RIGHT OF APPEAL

1. The President of the College shall be the final authority in the appeal process.

2. The student may file a written request asking that the President of the College review the decision and recommendations of the Assistant Dean and/or the College Disciplinary Committee. The written request must be filed within five days (excluding Saturday, Sunday, and holidays) of the hearing.

**Student Grievance/Complaint Procedures**

**Informal Student Complaint Process**
Northwest-Shoals Community College has a variety of procedures for dealing with student-related issues, including grade appeals, student discipline, harassment complaints, and Student Grievance policies. The informal complaint provides students with a procedure for addressing complaints about faculty/staff treatment of students that are not covered by other procedures. The following procedures apply to both traditional on campus students and distance education students. Additional information regarding grievance procedures for Distance Education students may be found in the Distance Education Student Handbook on the college website.

Whenever possible, complaints at Northwest-Shoals Community College are handled in an informal manner. Administrators, faculty, and staff maintain an “open-door” policy to discuss issues of concern for all students. Students are encouraged to first attempt to resolve complaints with the faculty or staff person. If unresolved, students should speak to the departmental chairperson or supervisor of the program. If no resolution is reached, the student should lodge his or her complaint with the Assistant Dean of Student Success.

**Formal Student Complaint Process**
If an informal conference regarding a complaint fails to reach the outcome requested by the student, the student may initiate the formal process by filing a written complaint with the Assistant Dean of Student Success. Complaints will be handled as expeditiously as possible. Complaints by students will be processed within at least five days of the written report. Intensive student complaints can take as long as 30 days to reach resolution. The student will be notified in writing should the response require a longer evaluation. The response will be made by the Department Head/Division Chair or the Assistant Dean of Student Success. The President of the College will make the final judgment.

The College supports the student’s right to file a formal complaint; therefore, assurances are given that no adverse action will be taken against the student. All student complaints and issues will be handled objectively.

**Grievance Procedures Involving Discrimination, Sexual Harassment, and Rights of the Disabled**

**Introduction**
Any student who has a grievance against any other student or member of the College faculty, staff, or administration concerning any form of discrimination (Title VI, Civil Rights Act of 1964), sexual harassment (Title IX of the Educational Amendments of 1972), violation of the rights of the disabled (Section 504 of the Rehabilitation Act of 1973) or the Americans with Disabilities Act of 1999 should first attempt to resolve the matter with the individual involved. If for some reason resolution of the grievance is not possible, the student should make his/her grievance known to the immediate supervisor of the individual against whom the student has a grievance, the Assistant Dean of Student Success or Senior Personnel Officer in order to seek informal resolution of the problem.

In the event that the grievance involving discrimination (Title VI), sexual harassment (Title IX), or violation of the rights of the disabled (Section 504) cannot be informally resolved, the formal procedures listed below should be followed. The following procedures attempt to protect the student’s rights to file a grievance involving discrimination (Title VI), sexual harassment (Title IX), or violation of the rights of the disabled (Section 504) against students or members of the College faculty, staff, or administration, yet providing the right of due process for the accused. Students and members of the College faculty, staff, or administration are guaranteed procedural due process and the right to review and defend any evidence related to the grievance.

In order to accommodate the resolution of such situations, Northwest-Shoals Community College offers the following grievance procedures as the appropriate course of action for settling disputes and resolving problems.

**I. Initial Steps**
Any student of Northwest-Shoals Community College who has a grievance against another student or a member of the Northwest-Shoals faculty, staff, or administration should first seek to resolve the issues with the individual involved. However, a student who believes herself or himself to be a victim of sexual harassment is not required to speak with the perpetrator before filing a formal complaint. If a resolution is not met, the student should make his/her grievance known to the individual’s immediate supervisor or to the Assistant Dean of Student Success to seek an informal resolution to the problem. If no resolution is met, the student may file a formal student complaint.

If the student requires a formal student complaint, a
formal written report must be submitted to the Dean of Student Success. If the student’s complaint cannot be resolved in the manner described above, the unresolved complaint becomes an official grievance.

II. Interim Resolution
If the Assistant Dean of Student Success deems that an interim resolution should be enforced pending a final outcome, the Assistant will recommend such accommodations to the President or his/her designee. The President or designee will have the discretion to impose or not impose an interim resolution.

III. Formal Grievance Process
A student who submits a complaint to the Assistant Dean of Student Success or appropriate College personnel and is not satisfied with an informal resolution may file a formal grievance. Grievance charges made by a student must be submitted to the Assistant Dean in writing. The grievance must be signed and as detailed as possible. The grievance should contain the following elements:

1. Date the original complaint was reported;
2. Name of the person to whom the original complaint was reported;
3. Facts of the complaint;
4. Action taken, if any, by the receiving official to resolve the complaint.

The Assistant Dean will notify the student or a member of the College faculty, staff, or administration of the charge(s) against him/her within five working days of the filed grievance. The Assistant Dean may suspend the student being charged, or the President of the College or his/her designee may suspend with pay the faculty member, staff member, or administrator being charged until a hearing is held and a decision rendered, if charges so warrant.

The Assistant Dean may then schedule the time and location of the Grievance Committee session. The Assistant Dean will make all reasonable attempts to notify the student or member of the College faculty, staff, or administration of the charges against him/her and provide the time, date, and location of the Student Grievance Committee hearing. If the student or member of the College personnel who is charged with the grievance so desires, he/she may request a Grievance Committee hearing after initially meeting with the Assistant Dean. If the Assistant Dean is unable to notify the student or College personnel of the charges and Grievance hearing after a reasonable attempt, then the student may be suspended. The President of the College or his/her designee may suspend with pay the faculty member, staff member, or administrator until a hearing is held and a decision rendered.

The College shall have 30 calendar days from the date of receipt by the Assistant Dean of Student Success of the grievance to conduct an investigation, hold a formal hearing, and submit a written report to the appropriate parties.

IV. Investigation Procedure
The Assistant Dean of Student Success or his/her designee will conduct a factual investigation of the grievance allegations. The Assistant Dean, after reviewing all of the evidence, will determine if substantial evidence exist to support the grievance. The factual findings of the investigation will be stated in the preliminary written report and submitted to the Grievant and to the party or parties against whom the complaint was made. The report will be made a part of the hearing record if a hearing is subsequently conducted. Parties will have the opportunity to submit a written report objecting to any of the factual findings. If the Assistant Dean finds the grievance is supported by substantial evidence, she/he will make recommendations to the hearing committee for the resolution of the grievance. Upon receipt of the Assistant Dean’s report, the Grievant has 5 working days to notify the Assistant Dean of a hearing request. The Assistant Dean, at his/her discretion, may choose to schedule a grievance hearing in the best interest of the College. In the event of no hearing, the Assistant Dean’s report will be deemed a final report and will be filed with the President.

V. Hearing Procedure
In the event that the Assistant Dean of Student Success schedules a hearing, the Vice President or designee will appoint a qualified five-member committee. The chairperson shall be the Assistant Dean or his designee. A quorum shall consist of four members and the chairperson. The hearing may not be conducted without a quorum. All Student Grievance Committee hearings shall be confidential and closed to all persons except the Grievant, party of whom the grievance is accused, counsels, and witnesses. Witnesses will give testimony and leave the committee meeting room immediately upon the completion of the testimony. All hearings will be taped and minutes recorded. Tapes, hearing minutes, and evidence will become the property of the College and access to them will be determined by the Vice President. All case files will be located and archived in the Office of the Assistant Dean of Student Success. The decision reached by the Student Grievance Committee shall be by a majority vote.
VI. Report of Findings
Within five (5) working days after the decision has been reached by the committee, the Chairperson of the Student Grievance Committee shall send a certified letter to the student or employee’s last known address to provide written notification of the committee’s decision. Decisions and recommendations will be forwarded to the Assistant Dean of Student Success for official confirmation and implementation. Decisions and recommendations issued by the Student Grievance Committee shall be implemented within the confines of the laws of the State of Alabama and of the laws of the United States of America. The report shall contain:
1. Date and place of the hearing;
2. The name of each member of the hearing committee;
3. A list of all witnesses for all parties of the grievance;
4. Findings of facts relevant to the grievance;
5. Conclusions of law, regulations, or policy relevant to the grievance;
6. Recommendation(s) arising from the grievance and the hearing thereon.

VII. Appeal Procedure
The President of the College shall be the appeal authority in upholding, rejecting, or modifying the decision and recommendations of the institutional Student Grievance Committee. The charged student or College personnel may file a written request with the Assistant Dean of Student Success requesting that the President of the College review the decision of the Student Grievance Committee. The written request must be filed within five working days of the hearing’s conclusion. The President of the College shall issue his/her opinion to accept, reject, or modify the decision of the Student Grievance Committee within five working days of the appeal. If the decision of the Student Grievance Committee does not satisfy the complainant and should the grievance allege discrimination (Title VI), sexual harassment (Title IX), or violation of the rights of the disabled (Section 504), the complainant may file a written grievance with the Alabama State Board of Education as defined in Section 616, p. 104-105, of the State Policy and Procedure Manual, the regional office of the Office for Civil Rights of the U.S. Department of Education with 180 days of the act, and/or the Equal Employment Opportunity Commission within 180 days of the decision issued by the institution. The College complies with non-discriminatory regulations under Title VI and Title VII of the Civil Rights Act of 1964; Title IX Education Amendment of 1972; and Section 504 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act (ADA) of 1990.

For Policy/Grievance Procedure, contact:
Crystal Reed
Assistant Dean of Student Success
P.O. Box 2545
Muscle Shoals, AL 35662
256.331.5249

ACCS Student Complaint Process
In 2015, the Alabama Legislature vested oversight of the state’s public two-year institutions of higher education (known as the Alabama Community College System (ACCS)) with the Alabama Community College System Board of Trustees. The Alabama Legislature further directed the Board of Trustees to delegate to the System’s Chancellor the authority to act and make decisions concerning the management and operation of the community and technical colleges. The Chancellor is assisted in these duties by the staff of the System Office, formerly known as the Alabama Department of Postsecondary Education. Consumer and student complaints that are not resolved at the institutional level are thus arbitrated at the state level by the ACCS System Office.

The ACCS is committed to respecting and supporting the work of its member institutions and to providing a quality educational experience for all students. The objective of the student complaint process is to ensure that the concerns and complaints of students are addressed fairly and are resolved promptly. The Alabama Community College System requires each institution to establish its own procedures to address student grievances and complaints. A student must exhaust his/her rights under the institution’s official complaint/grievance policy before advancing any complaint to the System Office of Alabama Community College System. Students may file consumer/student complaints with the Alabama Community College System by following these procedures:

A) If, after exhausting all available institutional processes, a student’s complaint remains unresolved, the student may appeal to the Alabama Community College System using the System’s official Student Complaint Form, which is available online at the ACCS website (www.accs.cc). Students may submit completed complaint forms by printing the form, signing it, and then either:
   1. scanning it and e-mailing it to complaints@accs.edu
   2. or mailing it to: Alabama Community College System;
   Attention: Division of Academic and Student Affairs;
P.O. Box 302130; Montgomery, AL 36130-2130

B) The Division of Academic and Student Affairs will investigate the complaint within 30 days of receipt.

C) The institution which is the subject of complaint has 30 days to provide a written response to questions and/or concerns raised during the investigation. Such response may or may not contain a resolution.

D) The Division of Academic and Student Affairs will adjudicate the matter and write a report or letter to the institution and student detailing corrective action, if any is necessary, or stating that the school has no violation of policies.

E) If corrective action is needed the institution will have 30 days to comply or develop a plan to comply with the corrective action.

F) The System Office will monitor the institution’s compliance to ensure the completion of any required corrective action.
College Personnel
President’s Executive Cabinet
Glenda Colagross.................................................. President
     Ed.D., University of Alabama
     M.A.Ed., University of North Alabama
     B.S., University of North Alabama

President’s Extended Cabinet
Tom Carter............Assistant Dean of Recruitment, Admissions
     and Financial Aid
     M.A., University of North Alabama
     B.S., Athens State College

April Cookson ......Executive Director of Distance Education
     Ed.D., Valdosta State University
     M.S., University of West Alabama
     B.S., Athens State University
     A.A.S., Northwest-Shoals Community College
     A.S., Northwest-Shoals Community College

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     M.B.A., University of North Alabama
     B.S., University of North Alabama

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     B.S., Auburn University

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     B.S., Liberty University

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     B.A., Bob Jones University

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     M.S., Mississippi State University
     B.S., Henderson State University

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Medina Peebles ..................... Director of MAT Program
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Jacqueline Jefferys .............. Child Development Coordinator
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Alison Mefford .................... High School Career Coach
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Malea Milstead .................. Coordinator of Advising and Graduation
Josh Morton ....................... Automotive Collision Repair Instructor Assistant
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Lenora Pride ..................... Tutor Coordinator for Youth Success
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Cierra Smith ................. Assistant Director Student Financial Services
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Rita Thorne .......... Competency Testing Laboratory Manager II
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Ruth Vallejo ........... Assistant Maintenance Supervisor I
Dudley Vandler ............. Machine Shop Trainer
Tommy Varnell ............. Maintenance Employee I
Brittney Vernon ........ Salon and Spa Program Instructor Assistant
Tamm Wadkins .............. Custodial Employee
Jennifer Weaver .......... Assistant Preschool Teacher
Pam Welborn .......... Secretary, Monitor for Federal Programs
Jesse White ............. Carpentry/Cabinetmaking Assistant
Kristin Williams .......... Preschool Teacher
Joshua Willingham .......... Technology Specialist
Rebecca Wilson ........ Coordinator of Admissions and Financial Aid Phil Campbell Campus
Mandy Winstead ........ Assistant to Nursing Department
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Taylor Franks .............. MSSC Training Center Coordinator
Benetia Groce ................. Teacher
Rose Hamilton ................. Secretary
Shelby Howard ................. Teacher
Ginger Jones ................. Teacher
Ryan Lawler ..................... Teacher
Dana Mays ..................... Teacher
Karman Morrow ........ AE Support Specialist
Lisa Terry ..................... Teacher

**Alabama Technology Network**

**Muscle Shoals Center**

Perry Shields .................. Director
Pam Elrod .......... Business Manager
Joey Massey ............. Technical Specialist
Larry McCoy ............ President Emeritus
Robert Tomlinson ............ Technology Manager
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