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.

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

TELEWEB COURSES - Teleweb courses are a combination of Internet-based online instruction and streaming video or DVD.

WEB COURSES - Web courses offer online instruction delivered through the Internet directly to the student’s computer or mobile device. Students receive instruction, interact with instructors, and complete lessons via the Internet.

BLENDED COURSES - Blended courses require students to come on-campus for certain activities such as labs, presentations, or speeches. Students complete the lecture portion of the class online without coming to campus.

Students may complete several degree programs by taking distance education courses. Those degrees are noted under the Plans of Study and the individual program pages of the catalog.

In order to be successful in distance education courses, students should meet a minimum of the following technology and skill requirements.

Technology Requirements:
• A desktop or laptop computer
• Microsoft Windows XP, 7, or 8
• Latest version of the Mozilla Firefox browser
• DSL / Cable Internet Connection
• Note: Additional course specific requirements will be noted at the time of registration in the course schedule and on Banner.

Skills:
• Self-motivation and discipline
• Basic computer literacy (sending email, using a web browser, etc.)
• Reading comprehension

Contact the Distance Education Office at 256.331.5395.
Plans of Study

University Parallel Transfer Guides

Associate in Arts Degree

Pages 42-45

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

Associate in Science Degree

Pages 46-59

Business Administration
*Child Development
Computer Information Systems
Environmental Health & Safety
*General Education
Fire Science/Fire Service Management
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

Career Degrees

Plans

Pages 60-106

Associate in Applied Science Degree

Child Development
Computer Information Systems Technology Programming Option
Personal Computer Systems Option
Criminal Justice
Design Engineering Technology
Electronics Technology
Emergency Medical Services
Environmental Health and Safety Technician

Associate in Occupational Technology Degree

3

Accounting Technology
Air Conditioning/Refrigeration Technology
Automotive Collision Repair
Automotive Service Technology
Carpentry/Cabinetmaking
Electrical Technology
Machine Shop Technology
Welding

Career Certificates

5

Accounting Technology
Air Conditioning/Refrigeration Technology
Automotive Collision Repair
Automotive Service Technology
Carpentry/Cabinetmaking
Electrical Technology
Industrial Systems Technology
Mechanical Certificate
Machine Tool/Computer Numerical Control (CNC)
Office Administration
Paramedic
Practical Nursing (LPN)
Salon and Spa Management
Cosmetology Option
Esthetics Option
Welding

Short-Term General Certificates

4

Air Conditioning/Refrigeration Technology
  -Basic
  -Level 1
  -Level 2
  -Level 3
  -Level 4
  -Level 5

Air Conditioning/Refrigeration Technology
  -Basic
  -Level 1
  -Level 2
  -Level 3

Basic Automotive Collision Repair
Basic Automotive Service Technology
Advanced Automotive Service Technology
Biomedical Equipment Technology

Special Program

Nursing Assistant

Allied Health - Linkage Programs

2

Clinical Laboratory Technician
Dental Assisting
Dental Hygiene
Diagnostic Imaging
Diagnostic Medical Sonography
Health Information Technology
Human Services
Occupational Therapy Assistant
Physical Therapist Assistant
Respiratory Therapy

1 Program is under review for continuation.
Courses will be offered as needed.

2 Allied Health Linkage - Students must transfer to Wallace State/Hanceville to complete the program and receive a degree.

3 Associate in Occupational Technology - Students must see an advisor for selection of approved primary and secondary technical areas of study.

4 Short-Term General Certificate programs are less than 27 semester hours. Career Certificate programs are completed within one to two years.

5 These programs do not require a high school diploma or GED certificate for admission.

* Degrees may be completed by taking distance education courses.
Plans of Study

General Education/University Transfer

The College is authorized to award the Associate in Arts and Associate in Science degrees for students planning to transfer to a four-year college or university. The transfer guides listed on the following pages can be used by students to determine what courses should be taken while at NW-SCC. 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. All A.A. or A.S. transfer guides may be adjusted to the student’s needs so long as the “General Education Core: requirements specified are met and the program follows a specified university-parallel program.

The College lists specific pre-professional and other university-parallel transfer guides in this catalog; however, not listed are many pre-professional and university programs which the College offers through special planning. A student in consultation with an academic advisor usually can develop an educational program using the current catalog 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.
**Associate in Arts and Associate in Science Degrees**

**Associate in Arts Transfer Guides**
- Art .............................................. 240101 ART
- General Liberal Arts ...................... 240101 GLA
- Music ............................................. 240101 MUS
- Pre-Law .......................................... 240101 LAW
- Teacher Education
  - Pre-Elementary Education .......... 240101 EED
  - Pre-Secondary Education ....... 240101 ESD

**Associate in Science Transfer Guides**
- Business Administration ............... 240102 BUA
- Child Development ...................... 240102 PECD
- Computer Information Systems ....... 240101 CI
- Pre-Computer Science .................. 240102 CS
- Environmental Health & Safety ...... 240102 ENV
- General Education ...................... 240102 GEN
- Fire Science/Fire Service Management 240102 FSM
- Medical Technology ..................... 240102 MT
- Pre-Chemical Laboratory Technician 240102 CLT
- Pre-Criminal Justice ..................... 240102 PCJ
- Pre-Dentistry ................................. 240102 DEN
- Pre-Engineering .............................. 240102 ENG
- Pre-Environmental Biology .......... 240102 EB
- Pre-Environmental Science .......... 240102 ES
- Pre-Financial Planning & Counseling 240102 FIN
- Pre-Health, Physical Education and Recreation 240102 HPR
- Pre-Industrial Hygiene .................. 240102 IH
- Pre-Medicine ................................. 240102 MED
- Pre-Nursing (B.S.N.) ................. 240102 BSN
- Pre-Optometry ............................... 240102 OPT
- Pre-Pharmacy ............................... 240102 PHA
- Pre-Physical Therapy .................... 240102 PPT
- Pre-Veterinary Medicine .............. 240102 VET
- Water & Wastewater Management & Technology 240102 WWT

The Associate in Arts and Associate in Science degrees require a minimum of 61 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 the College. 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. Transfer guides have been outlined in the catalog to guide students in the choice and sequence of particular courses.

**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, 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.
Core 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. 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>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: Written Composition 6</td>
</tr>
<tr>
<td><strong>ENG 101 and 102</strong></td>
</tr>
<tr>
<td>Area II: Humanities and Fine Arts 12</td>
</tr>
<tr>
<td>*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ... 6</td>
</tr>
<tr>
<td>SPH 107 3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101 3</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics 11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202; PHY 213, 214 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 3</td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science 12</td>
</tr>
<tr>
<td>*History: HIS 101 and 102 or HIS 201 and 202 6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210 6</td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses 19-22</td>
</tr>
<tr>
<td>CIS 146 or demonstrated equivalent computer competency skills. Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective 6-9</td>
</tr>
<tr>
<td>Total Semester Transfer Hours 61-64</td>
</tr>
</tbody>
</table>

* See note 2 on page 41.

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

General Liberal Arts Associate in Arts Degree Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: All Academic Faculty (see Advising Center; Phil Campbell: 256.331.6239; Shoals: 256.331.5297)

This guide has been developed for students seeking a liberal arts degree. Students should decide as early as possible at which four-year institution they will complete the last two years of work for the bachelor’s degree. Substitution of courses may be made according to the specific requirements of the institution to which the student plans to transfer. Changes must be recommended by an advisor and approved by the Vice President.

*Students may earn this degree through distance education.

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

<table>
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<th>Semester Hours</th>
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<tr>
<td>SPH 107 3</td>
</tr>
<tr>
<td><em>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206</em>, REL 100/151/152, or SPA 101 3</td>
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<tr>
<td>Area III: Natural Sciences and Mathematics 11</td>
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<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202; PHY 213, 214 8</td>
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<td>Math: Choose one course from MTH 110 or MTH 112 (or above) MTH 113, 120, 125, 126, 227, 237, 238 3</td>
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<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210 6</td>
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<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses 19-23</td>
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<tr>
<td>CIS 146 or demonstrated equivalent computer competency skills. Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective 6-9</td>
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<tr>
<td>Total Semester Transfer Hours 60-64</td>
</tr>
</tbody>
</table>

* See note 2 on page 41.

**Keyboarding skills are essential for the successful completion of English 101.
Art
Associate in Arts Degree
Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: J. Frederick (6294/5494) jfrederick@nwscc.edu

This guide has been developed for those students planning to major or minor in art. Students planning to major or minor in art should consult the university to which they plan to transfer and plan their program of study in consultation with the Art Department.

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Area I: Written Composition</th>
<th>Area II: Humanities and Fine Arts</th>
<th>Area III: Natural Sciences and Mathematics</th>
<th>Area IV: History, Social and Behavioral Science</th>
<th>Area V: Pre-Professional, Pre-Major, and Elective Courses</th>
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<td></td>
<td><strong>ENG 101 and 102</strong></td>
<td><strong>Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262...6</strong></td>
<td><strong>Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202; PHY 213, 214...8</strong></td>
<td><strong>History: HIS 101 and 102 or HIS 201 and 202...6</strong></td>
<td><strong>ART 113, 114, 121, 127, 299...13</strong></td>
</tr>
</tbody>
</table>
|                |                             | SPH 107..................................3 | Math: Choose one course from MTH 110 or MTH 112 (or above) MTH 113, 120, 125, 126, 227, 237, 238...3 | Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210...6 | Equivalent computer competency skills.
|                |                             | Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101...3 | Total Semester Transfer Hours ..................................61-64 | Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective...6-9 |
|                |                             | Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101...3 | **See note 2 on page 41.** | **See note 2 on page 41.** | **See note 2 on page 41.** |

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

Music
Associate in Arts Degree
Transfer Guide

Available: Phil Campbell Campus
Advisors: J. McAlister (6299) j.mcalister@nwscc.edu

This guide has been developed as a guideline for those students planning a major or minor in music. Students planning a major in music therapy, music theater, or commercial music should consult the university from which they will receive a degree and plan their program of study in consultation with the Music Department.

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Area I: Written Composition</th>
<th>Area II: Humanities and Fine Arts</th>
<th>Area III: Natural Sciences and Mathematics</th>
<th>Area IV: History, Social and Behavioral Science</th>
<th>Area V: Pre-Professional, Pre-Major, and Elective Courses</th>
</tr>
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<td><strong>ENG 101 and 102</strong></td>
<td><strong>Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262...6</strong></td>
<td><strong>Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202; PHY 213, 214...8</strong></td>
<td><strong>History: HIS 101 and 102 or HIS 201 and 202...6</strong></td>
<td><strong>ART 113, 114, 121, 127, 299...13</strong></td>
</tr>
</tbody>
</table>
|                |                             | SPH 107..................................3 | Math: Choose one course from MTH 110 or MTH 112 (or above) MTH 113, 120, 125, 126, 227, 237, 238...3 | Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210...6 | Equivalent computer competency skills.
|                |                             | Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101...3 | Total Semester Transfer Hours ..................................64 | Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective...6-9 | **See note 2 on page 41.**
|                |                             | Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101...3 | **See note 2 on page 41.** | **See note 2 on page 41.** | **See note 2 on page 41.** |

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

Computer competency skills are embedded within one or more courses required in this curriculum.
Pre-Law 240101 LAW
Associate in Arts Degree
Transfer Guide
Available:  Phil Campbell and Shoals Campuses
Advisors:  K. Brackins (6242) kbrackins@nwscc.edu
K. Tucker (8060) ktucker@nwscc.edu

This guide is designed for students who plan to transfer to a four-year institution to complete requirements for admission to law school.
While students planning careers in law may pursue a wide variety of undergraduate programs of study, a broad liberal arts education is considered an ideal preparation for the study of law.
*Students may earn this degree through distance education.

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

Semester Hours
Area I:  Written Composition .................................. 6
**ENG 101 and 102
Area II:  Humanities and Fine Arts ......................... 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262... 6
SPH 107 ........................................ 3
*Elective: Choose one course from among ART 100, MUS 101, PHL 106/206,
REL 100/151/152, or SPA 101 ............... 3
Area III: Natural Sciences and Mathematics ............. 11
Science: Choose two core courses from among BIO 103, 104; CHM 104, 105,
111, 112; PHS 111, 112; PHY 201, 202;
PHY 213, 214 .................................... 8
Math: Choose one from MTH 110 or MTH 112 (or above) MTH 113, 120, 125,
126, 227, 237, 238......................... 3
Area IV: History, Social and Behavioral Science......... 12
*History: HIS 101 and 102
or HIS 201 and 202 .............. 6
Social and Behavioral Sciences: Choose two courses from among
ECO 231, 232; GEO 100; POL 211,
PSY 200, 210; SOC 200, 210........... 6
Area V: Pre-Professional, Pre-Major, and Selective Courses.......................... 19-23
ECO 231, 232; HED 226, PHL 206,
POL 211, PSY 200, SOC 200
(If not already completed for Area IV)
CIS 146 or demonstrated equivalent computer competency skills.
PED can be used as a general elective.

Total Semester Transfer Hours .......................... 60-64
*See note 2 on page 41.
**Keyboarding skills are essential for the successful completion of English 101.

Teacher Education 240101 EED
(Pre-Elementary Education)
Associate in Arts Degree
Transfer Guide
Available:  Phil Campbell and Shoals Campuses
Advisors:  T. Kelley (5486/6287) tkelley@nwscc.edu
S. Crabtree (6258) scrabtree@nwscc.edu
S. Cain (6016) scain@nwscc.edu
A. Lyndon (5319) slyndon@nwscc.edu
M. McClung (6313) mcmclung@nwscc.edu
K. Tucker (8060) ktucker@nwscc.edu
L. Gibson (5393) lgibson@nwscc.edu
L. Wright (5309) lauren.wright@nwscc.edu

This guide is designed for students who plan to transfer to a four-year institution to complete requirements for teaching in an elementary school. All students entering elementary education programs at senior institutions must satisfactorily complete a language competency examination. Many institutions require foreign language or computer science courses. Students should consult their advisor and the university to which they plan to transfer.
Entering students are required to complete ORI 107.
Transfer students are exempt from this requirement.

Semester Hours
Area I:  Written Composition: **ENG 101 and 102 ................. 6
Area II:  Humanities and Fine Arts ......................... 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262...... 6
SPH 107 ........................................ 3
*Elective: Choose one course from among ART 100, MUS 101, PHL 106/206,
REL 100/151/152, or SPA 101 ............... 3
Area III: Natural Sciences and Mathematics ............ 11
Science: BIO 103 and 104 ..................... 8
Math: Choose one from MTH 110 or MTH 112 (or above) MTH 113, 120, 125,
126, 227, 237, 238......................... 3
Area IV: History, Social and Behavioral Science ...... 12
*History: HIS 101 and 102
or HIS 201 and 202 .................. 6
Social and Behavioral Sciences: Choose two courses from among
ECO 231, 232; GEO 100; POL 211,
PSY 200, 210; SOC 200, 210........... 6
Area V: ***Pre-Professional, Pre-Major, and Selective Courses...................................... 23
Choose two science courses representing two different disciplines other than Biology:
CHM 104, 105, 111, 112;
PHS 111, 112; PHY 201, 202, 213, 214........ 8
****Additional Maths (MTH 116 cannot be used)
MTH 100 or above ......................... 6
CIS 146 or demonstrated equivalent computer competency skills. Selective courses appropriate to individual student and transfer institution.
PED can be used as a general elective ...... 9

Total Semester Transfer Hours .......................... 64
*See note 2 on page 41.
**Keyboarding skills are essential for the successful completion of English 101.
**Associate in Arts Degree**

**Area I:** Written Composition ........................................ 6
**ENG 101 and 102**

**Area II:** Humanities and Fine Arts .............................. 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262... 6
SPH 107 ...................................................... 3
Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, or SPA 101 ........................................ 3

**Area III:** Natural Sciences and Mathematics ................. 11
Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202, 213, 214 ........................................ 8
Math: Choose one from MTH 110 or 112 (or above), MTH 113, 120, 125, 126, 227, 237, 238 .............................. 3
(MTH 110 not acceptable for math and science teachers.)

**Area IV:** History, Social and Behavioral Science .......... 12
*History: HIS 101 and 102
or HIS 201 and 202 ...................................... 6
Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211; PSY 200, 210; SOC 200, 210** .............................. 6

**Area V:** Pre-Professional, Pre-Major, and Elective Courses ...................................................... 19-23
CIS 146 or demonstrated equivalent computer competency skills. Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective.

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

*See note 2 on page 41.

**Business Administration**

**Area I:** Written Composition ........................................ 6
**ENG 101 and 102**

**Area II:** Humanities and Fine Arts .............................. 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262... 6
SPH 107 ...................................................... 3
Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101 ............... 3

**Area III:** Natural Sciences and Mathematics ................. 11
Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202, 213, 214 ........................................ 8
Math: Choose one from MTH 112 or above** ..................... 3

**Area IV:** History, Social and Behavioral Science .......... 12
*History: HIS 101 and 102
or HIS 201 and 202 ...................................... 6
ECO 231 and 232 ........................................ 6

**Area V:** Pre-Professional, Pre-Major, and Elective Courses ...................................................... 19-23
BUS 241 and 242 ........................................ 6
Business Electives: Choose three courses from among BUS 215, BUS 248, BUS 263, BUS 271, BUS 272, BUS 275, BUS 285, BUS 279 ........................................ 9
CIS 146 ................................................... 3
General Elective ........................................ 1-5
PED can be used as a general elective.

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

*See note 2 on page 41.

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

**Some schools require calculus, MTH 125 or MTH 120.


**Child Development**

**Pre-Human Environmental Science**

**Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses
Advisors: D. Durdunji (5450) durdunji@nwscc.edu

This guide concentrates on the growth and development of young children (birth to 5). Students learn to apply developmental principles in the design, implementation, and evaluation of programs for young children. Students should consult their advisor and the university to which they plan to transfer.

* Students may earn a degree through distance education.

**Entering students are required to complete ORI 107.**

**Transfer students are exempt from this requirement.**

**Semester Hours**

| Area I: Written Composition: ENG 101 and 102 | 6 |
| Humanities and Fine Arts | 12 |
| Science: BIO 103 and 104 | 8 |
| Math: Choose from MTH 112 (or above) | 3 |
| Area II: | |
| History, Social and Behavioral Science | 12 |
| Social and Behavioral Sciences: | 6 |
| Area III: Natural Sciences and Mathematics | 11 |
| Math: Choose from MTH 100, MTH 110 and MTH 112 (or above) | 3 |
| Area IV: History, Social and Behavioral Science | 12 |
| Social and Behavioral Sciences: | 6 |
| Area V: Pre-Professional, Pre-Major, and Elective Courses | 19-23 |

Through articulation agreements with the University of Alabama and the University of North Alabama, students who hold this degree will be allowed to transfer 21 to 24 hours of their CHD course work toward a B.S. degree in the area of Human Environmental Science.

The CHD courses generally accepted are included below:

- *CIS 146 Microcomputer Applications*
- **CHD 201 Child Growth and Development**
- **CHD 203 Children’s Literature and Language Dev.**
- **CHD 204 Methods and Materials**
- **CHD 206 Children’s Health and Safety**
- **CHD 210 Educating Exceptional Young Children**
- **CHD 209 Infant and Toddler Education Programs**
- **CHD 205 Program Planning**
- **CHD 208 Administration of Child Development Programs**
- **CHD 202 Creative Experiences**
- **CHD 215 Supervised Practical Experience**

**Total Semester Transfer Hours** 60-64

*Specific to the University of North Alabama.
**Specific to the University of Alabama.
NOTE: This degree does not lead to teacher certification by the State Department of Education.

**Child Development**

**Teacher Education (Pre-Early Childhood)**

**Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses
Advisors: D. Durdunji (5450) durdunji@nwscc.edu

This guide is designed for the student to transfer to Athens State University for completion of an Early Childhood Major (P-3rd grade) for a Bachelor of Science Degree in Education. Students should consult their advisor and the university to which they plan to transfer.

**Entering students are required to complete ORI 107.**

**Transfer students are exempt from this requirement.**

**Semester Hours**

| Area I: Written Composition: **ENG 101 and 102 | 6 |
| Humanities and Fine Arts | 12 |
| Science: BIO 103 and 104 | 8 |
| Math: Choose from MTH 100, MTH 110 and MTH 112 | 3 |
| Area II: | |
| History, Social and Behavioral Science | 12 |
| Social and Behavioral Sciences: | 6 |
| Area III: Natural Sciences and Mathematics | 14 |
| Science: BIO 103 and 104 | 8 |
| Math: Choose from MTH 100, MTH 110 and MTH 112 | 3 |
| Area IV: History, Social and Behavioral Science | 12 |
| Social and Behavioral Sciences: | 6 |
| Area V: Pre-Professional, Pre-Major, and Elective Courses | 17 |
| Area VI: Pre-Professional, Pre-Major, and Elective Courses | 6 |
| **CHD 206 and CHD 209** | 6 |
| **CIS 146** | 3 |
| **PHS 111** | 4 |
| **CHD Elective** | 3 |

**Total Semester Transfer Hours** 62

*See note 2 on page 41.
**Keyboarding skills are essential for the successful completion of English 101.
***See advisor for suggested electives.
****Additional maths may be required.
**Computer Information Systems 240101 CI**

**Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses  
Advisors:  T. Roberson (5276)  roberson@nwscc.edu  
S. Chandler (5234)  schandler@nwscc.edu  
J. James (6234/5346)  jamesj@nwscc.edu

This guide is designed for students who plan to transfer to four-year institutions for a major in Computer Information Systems or Management Information Systems. It is designed to provide skills for an entry-level position as an applications developer while providing the general education program for further study toward a baccalaureate degree.

Each program requires individual adjustment to prepare for transfer and the student should be in contact with the transfer institution as the A.S. degree is pursued. Students are trained to use current PC software and hardware.

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
</table>
| Area I: Written Composition ...........................................6  
**ENG 101 and 102** |
| Area II: Humanities and Fine Arts .................. 12-13  
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ....6  
SPH 107 ...........................................3  
*Elective: Choose one course from among: ART 100, MUS 101, PHL 106/206, REL 100/151/152, or SPA 101 ...........3-4 |
| Area III: Natural Sciences and Mathematics ............ 14  
Science: Choose two core courses from among: BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202, 213, 214 .......8  
Math: Choose one from MTH 112 or above .................3  
***CIS 146 ...................................3 |
| Area IV: History, Social and Behavioral Science ........12  
*History: HIS 101 and 102 or HIS 201 and 202 .................6  
*****Choose two courses from among ECO 231, ECO 232, POL 200, POL 211, PSY 200, PSY 210, SOC 200 ..................6 |
| Area V: Pre-Pro, Pre-Maj, and Elective Courses ............ 16-20  
**BUS 241 and 242 ................................6  
****CIS 251 ...................................3  
*****CIS 255 ..................................3  
General Electives/CIS Electives ......................4-8 |

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

*See note 2 on page 41.

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

**Students without prior computer knowledge or keyboarding should enroll in CIS 096.

****CIS 150 is recommended for students with no programming knowledge.

*****Some schools prefer ECO 231 and ECO 232. Please check with the institution you are transferring to verify their requirements.

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**Environmental Health and Safety 240102 ENV**

**Associate in Science Degree**

**Transfer Guide**

Available: Shoals Campus  
Advisors:  C. Eubanks (5293)  eubanks@nwscc.edu

*This guide is designed for students who plan to transfer to four-year institutions offering a degree in Public Safety Administration or Environmental Health and Safety. Also see the A.A.S. degree and short-term certificate programs. Students should consult their advisor and the university to which they plan to transfer.

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
</table>
| Area I: Written Composition ...........................................6  
**ENG 101 and 102** |
| Area II: Humanities and Fine Arts .................. 12  
***Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ....6  
SPH 107 ...........................................3  
*Elective: Choose one course from among: ART 100, MUS 101, PHL 106/206, REL 100/151/152, or SPA 101 ...........3-4 |
| Area III: Natural Sciences and Mathematics ............ 11  
Science: CHM 104 and PHS 120 .................8  
Math: Choose one from MTH 110, MTH 112 or above .................3 |
| Area IV: History, Social and Behavioral Science ........12  
***History: HIS 101 and 102 or HIS 201 and 202 .................6  
Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210 ..................6 |
| Area V: Pre-Pro, Pre-Maj, and Elective Courses ............ 22-23  
EVT 105, EVT 107, EVT 110, EVT 220, EVT 250, EVT 260 ...........19  
Choose one course from among EVT 201, EVT 210, EVT 280 ............3-4 |

**Total Semester Transfer Hours ................................63-64**

*This program specifically links to the Public Safety Administration program at Athens State University. Students transferring to other institutions should consult with the senior institution to which they plan to transfer concerning transferability of PHS 120 and the EVT courses.

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

***See note 2 on page 41.

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Northwest-Shoals Community College 2016-2017
### General Education

#### Associate in Science Degree

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses  
Advisors: All Academic Faculty (see Advising Center; Phil Campbell: 256.331.6239; Shoals: 256.331.5297)

This guide is designed for students seeking a general education core for transfer to four-year institutions. It allows flexibility in the selection of general electives or courses preparatory for a major. Students should consult the catalog of the college to which they intend to transfer and consult their advisor.

**Students may earn this degree through distance education.**

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

<table>
<thead>
<tr>
<th><strong>Area I:</strong> Written Composition</th>
<th><strong>240102 GEN</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 and 102</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>Area III:</strong> Natural Sciences and Mathematics</th>
<th><strong>11</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 104, 105, 111, 112; PHS 111, 112; PHY 201, 202, 213,214...8</td>
<td></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><strong>Area IV:</strong> History, Social and Behavioral Science</th>
<th><strong>12</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;History: HIS 101 and 102 or HIS 201 and 202&quot;</td>
<td>6</td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Area V:</strong> Pre-Professional, Pre-Major, and Elective Courses</th>
<th><strong>19-23</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 146 or demonstrated equivalent computer competency skills. Elective courses appropriate to individual student and transfer institution. PED can be used as a general elective.</td>
<td></td>
</tr>
</tbody>
</table>

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

*See note 2 on page 41.*  
**Keyboarding skills are essential for the successful completion of English 101.*

### Fire Science/Fire Service

**Transfer Guide**

Available: Shoals Campus  
Advisors: T. Maupin (5247) tmaupin@nwscc.edu

*This guide is designed for students who plan to transfer to four-year institutions offering a degree in fire science or public safety administration. Also see the short-term certificate program. Students should consult their advisor and the university to which they plan to transfer.*

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

<table>
<thead>
<tr>
<th><strong>Area I:</strong> Written Composition</th>
<th><strong>240102 FSM</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 and 102</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Area II:</strong> Humanities and Fine Arts</th>
<th><strong>12</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Literature: ENG 271 and 272...6&quot;</td>
<td></td>
</tr>
<tr>
<td>SPH 107</td>
<td>3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206; REL 100/151/152, or SPA 101</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Area III:</strong> Natural Sciences and Mathematics</th>
<th><strong>11</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Science: BIO 103 and CHM 104</td>
<td>8</td>
</tr>
<tr>
<td>Math: Choose one course from MTH 112 or above</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th><strong>Area V:</strong> Pre-Professional, Pre-Major, and Elective Courses</th>
<th><strong>21</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 241 (BUS 242 also recommended)</td>
<td>3</td>
</tr>
<tr>
<td>CIS 146</td>
<td>3</td>
</tr>
<tr>
<td>FSC 101, FSC 110, FSC 208, FSC 241, FSC 291</td>
<td>15</td>
</tr>
</tbody>
</table>

**Total Semester Transfer Hours** **63**

*This program specifically links to the Public Safety Administration program at Athens State University. Students transferring to other institutions should consult with the senior institution to which they plan to transfer concerning transferability of the FSC courses.*  
**Keyboarding skills are essential for the successful completion of English 101.*  
***See note 2 on page 41.*
Fire Science/Fire Services Management Short-Term Certificate

Available: Shoals Campus
Advisors: T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for employment in fire science or related business fields. Also, see the A.S. Degree Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSC 101 Introduction to Fire Science</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FSC 208 Fire Combat Tactics and Strategy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FSC 110 Building Construction Principles</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FSC 241 Fire Investigation I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>FSC 291 Fire Service Officer I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours: 15

Medical Technology Associate in Science Degree Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: H. Johnson (5326) heatherj@nwscc.edu
C. Sockwell (5378) sockwell@nwscc.edu

This guide is designed for students who plan to transfer to UAB, Auburn or other institutions offering a four-year medical technology degree. Students should consult their advisor and the university to which they plan to transfer.

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

<table>
<thead>
<tr>
<th>Area I</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Composition</td>
<td>6</td>
</tr>
<tr>
<td><strong>ENG 101 and 102</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Fine Arts</td>
<td>12</td>
</tr>
</tbody>
</table>
| *Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262...6 SPH 107...3  
Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA101...3 |

<table>
<thead>
<tr>
<th>Area III</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Science: CHM 111 and 112</td>
<td>8</td>
</tr>
<tr>
<td>Math: Choose one from MTH 110 or MTH 112 (higher is preferred) MTH 113, 120, 125, 126, 227, 237, 238...3</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Area V</th>
<th>Semester Hours</th>
</tr>
</thead>
</table>
| Pre-Professional, Pre-Major, and Elective Courses...19-23  
Choose from BIO 103, 201, 202; CHM 221, 222; PHY 201, 202; |

Total Semester Transfer Hours: 60-64

*See note 2 on page 41.

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

Pre-Chemical Laboratory Technician Associate in Science Degree Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: C. Sockwell (5378) sockwell@nwscc.edu
M. Murphy (6246) docm@nwscc.edu
C. Eubanks (5293) eubanks@nwscc.edu

This guide is designed for students who plan to transfer to four-year institutions offering a degree in Chemical Technology. Also see the short-term certificate program. Students should consult their advisor and the university to which they plan to transfer.

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

<table>
<thead>
<tr>
<th>Area I</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Composition</td>
<td>6</td>
</tr>
<tr>
<td><strong>ENG 101 and 102</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Fine Arts</td>
<td>12</td>
</tr>
</tbody>
</table>
| ENG 271 or ENG 272 or ENG 130...6 SPH 107...3  
Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA101...3 |

<table>
<thead>
<tr>
<th>Area III</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>CHM 111 and CHM 112</td>
<td>8</td>
</tr>
<tr>
<td>MTH 113</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area IV</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>History, Social and Behavioral Science</td>
<td>12</td>
</tr>
</tbody>
</table>
| *History: HIS 101 and 102 or HIS 201 and 202...6  
SOC 200, 210; SOC 200, 210...3  
Choose one course from among ECO 231, 232; GEO 100; POL 211, PSY 200, 210; SOC 200, 210...3 |

<table>
<thead>
<tr>
<th>Area V</th>
<th>Semester Hours</th>
</tr>
</thead>
</table>
| Pre-Professional, Pre-Major, and Elective Courses...22-23  
Choose from BIO 103, 201, 202; CHM 221, 222; PHY 201, 202; |

Total Semester Transfer Hours: 63-64

*See note 2 on page 41.

**Keyboarding skills are essential for the successful completion of English 101.
**Chemical Laboratory Technician Short-Term Certificate**

Available: Phil Campbell and Shoals Campuses  
Advisors: C. Sockwell (5378) sockwell@nwscc.edu  
M. Murphy (6246) docm@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, thermodynamics, 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></td>
<td>3</td>
</tr>
<tr>
<td>CHM 112 College Chemistry II</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>ENG 101 English Composition I</strong></td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENG 130 Technical Report Writing</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MTH 112 Precalculus Algebra</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MTH 265 Elementary Statistics</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours** ................................................. **24**

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

**Pre-Computer Science Associate in Science Degree**

**Pre-Criminal Justice Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses  
Advisors: E. Bowen (5303) eddie.bowen@nwscc.edu  
K. Brackins (6242) kbrackins@nwscc.edu

This guide is designed to prepare students for transfer to a four-year institution for a major in Computer Science, Computer Engineering, or Software Engineering, usually offered in a school of engineering or mathematics. Each program requires individual adjustment to prepare for transfer and the student should be in contact with the transfer institution, as the A.S. degree is pursued. Students are trained to use current PC software and hardware.

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

<table>
<thead>
<tr>
<th>Area I</th>
<th>Written Composition ........................................</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 and 102</strong></td>
<td><strong>ENG 101 and 102</strong></td>
<td>6</td>
</tr>
<tr>
<td>Area II: Humanities and Fine Arts</td>
<td>Humanities and Fine Arts ..................................</td>
<td>12</td>
</tr>
</tbody>
</table>

Northwest-Shoals Community College 2016-2017
Area III: Natural Sciences and Mathematics ............... 11
Science: Choose two core courses from
among BIO 103, 104; CHM 104, 105,
111,112; PHS 111, 112; PHY 201, 202,
213, 214............................. 8
MTH 112 or MTH 110 (finite) ...................... 3

Area IV: History, Social and Behavioral Science ........... 12
*History: HIS 101 and 102
or HIS 201 and 202 .......................... 6
Choose two courses from among
ECO 231, 232; GEO 100; POL 211;
PSY 200, 210; SOC 200.......................... 6

Area V: Pre-Professional, Pre-Major, and
Elective Courses .................................. 19-23
CRJ 100, CRJ 110, CRJ 140,
and CRJ Elective ................................. 12
CIS 146........................................ 3
MTH 265 or CRJ Elective ......................... 6
General Electives ................................ 1-5
PED can be used as a general elective.

Total Semester Transfer Hours .........................60-64

*See note 2 on page 41.
**Keyboarding skills are essential for the successful completion of English 101.

Pre-Dentistry

Associate in Science Degree

Transfer Guide
Available: Phil Campbell and Shoals Campuses
Advisors: C. Eubanks (5293) eubanks@nwsc.edu
C. Sockwell (5378) sockwell@nwsc.edu
This guide is designed for students who plan to transfer to
four-year institutions to complete requirements for a degree
in Engineering. Students should consult their advisor and the
university to which they plan to transfer.

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

Area I: Written Composition ........................... 6
**ENG 101 and 102

Area II: Humanities and Fine Arts ....................... 12
*Literature: ENG 271 and 272,
ENG 251 and 252 or ENG 261 and 262 .... 6
SPH 107 .................................... 3
Elective: Choose one course from among
ART 100, MUS 101, PHL 106/206*,
REL 100/151/152, or SPA 101 .................. 3

Area III: Natural Sciences and Mathematics ............ 11
Science: Choose two core courses from
among BIO 103, 104; CHM 111, 112;
PHY 201, 202, 213, 214 ...................... 8
Math: Choose one from MTH 112
(higher is preferred) MTH 113, 120,
125, 126, 227, 237, 238 ...................... 3

Area IV: History, Social and Behavioral Science ....... 12
*History: HIS 101 and 102
or HIS 201 and 202 ............................ 6
Social and Behavioral Sciences;
Choose two courses from among
ECO 231, ECO 232, GEO 100,
POL 211, PSY 200, PSY 210,
SOC 200, SOC 210 ......................... 6

Area V: Pre-Professional, Pre-Major, and
Elective Courses .................................. 19-23
CIS 146 or demonstrated
equivalent computer competency skills.
Choose from BIO 103, BIO 104, BIO 220,
CHM 111, CHM 112, CHM 221, CHM 222,
PHY 201, PHY 202, PHY 213, PHY 214,
MTH 125, MTH 265

Total Semester Transfer Hours .........................60-64

*See note 2 on page 41.
**Keyboarding skills are essential for the successful completion of English 101.
Pre-Environmental Biology 240102 EB
Associate in Science Degree

Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: D. Goodloe (5372) dgoodloe@nwscc.edu
S. Grosso (8022) sheri.grosso@nwscc.edu

This guide is designed for students who plan to transfer to four-year institutions offering a degree in Environmental Science. Students should consult their advisor and the university to which they plan to transfer.

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

Area I: Written Composition ........................................... 6
**ENG 101 and 102

Area II: Humanities and Fine Arts ................................. 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ...... 6
SPH 107 ................................................. 3
Elective: Choose one course from among ART 100, MUS 101, or REL 100/151/152, or SPA 101 ........ 3

Area III: Natural Sciences and Mathematics .................. 11
Science: BIO 103 and 104 .................................. 8
Math: MTH 112 (higher is preferred) MTH 113, 120, 125, 126, 227, 237, 238 .... 3

Area IV: History, Social, and Behavioral Science ............ 12
*History: HIS 101 and 102 or HIS 201 and 202 .................. 6
Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210 ............ 6

Area V: Pre-Professional, Pre-Major, and Elective Courses ........................................... 19-23
CIS 146 or demonstrated equivalent computer competency skills.
Choose from BIO 220, CHM 111, CHM 112, CHM 221, MTH 125, MTH 265, PHY 213, PHY 214, PHY 201, PHY 202

Total Semester Transfer Hours ..................................60-64

**See note 2 on page 41.

*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 .... 6

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

Pre-Environmental Science 240102 ES
Associate in Science Degree

Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: C. Eubanks (5293) eubanks@nwscc.edu
C. Sockwell (5378) sockwell@nwscc.edu
D. Goodloe (5372) dgoodloe@nwscc.edu

This guide is designed for students who plan to transfer to four-year institutions offering a degree in Environmental Science. Students should consult their advisor and the university to which they plan to transfer.

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

Area I: Written Composition ........................................... 6
**ENG 101 and 102

Area II: Humanities and Fine Arts ................................. 12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ...... 6
SPH 107 ................................................. 3
Elective: Choose one course from among ART 100, MUS 101, or REL 100/151/152, or SPA 101 ........ 3

Area III: Natural Sciences and Mathematics .................. 11
Science: Choose two core courses from among BIO 103, 104; CHM 111, 112; POL 201, 202, 213, 214 ........ 8
Math: MTH 112 (higher is preferred) MTH 113, 120, 125, 126, 227, 237, 238 .... 3

Area IV: History, Social, and Behavioral Science ............ 12
*History: HIS 101 and 102 or HIS 201 and 202 .................. 6
Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210 ............ 6

Area V: Pre-Professional, Pre-Major, and Elective Courses ........................................... 19-23
CIS 146 or demonstrated equivalent computer competency skills.
Choose from BIO 220, CHM 111, CHM 112, CHM 221, MTH 125, MTH 265, PHY 213, PHY 214, PHY 201, PHY 202

Total Semester Transfer Hours ..................................60-64

**See note 2 on page 41.

**Keyboarding skills are essential for the successful completion of English 101.
Pre-Financial Planning and Counseling
Associate in Science Degree
Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisors: E. Carter (5277) cartere@nwscc.edu
J. Baltes (5353) jbaltes@nwscc.edu
J. James (6234/5346) jamesj@nwscc.edu

This guide is designed for students who plan to transfer to a four-year institution and major in a program such as Pre-Financial Planning and Counseling. The coursework is focused on developing students with a broad theoretical background in the social sciences. Students will also learn to apply that knowledge toward the solution of practical problems of individual and family economic well being. Students should consult their advisor and the university to which they plan to transfer.

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: Written Composition</td>
<td>6</td>
</tr>
<tr>
<td><strong>ENG 101 and 102</strong></td>
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<tr>
<td>Area II: Humanities and Fine Arts</td>
<td>12</td>
</tr>
<tr>
<td><strong>Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262</strong></td>
<td>6</td>
</tr>
<tr>
<td>SPH 107</td>
<td>3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 150/151/152, or SPA 101</td>
<td>3</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 111, 112; PHY 201, 202, 213, 214; CHM 111, 112; Math: MTH 120 or above</td>
<td>3</td>
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<tr>
<td>Area IV: History, Social and Behavioral Science</td>
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<tr>
<td><strong>History: HIS 101 and 102 or HIS 201 and 202</strong></td>
<td>6</td>
</tr>
<tr>
<td>ECO 231, ECO 232</td>
<td>6</td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>19-23</td>
</tr>
<tr>
<td>CIS 146</td>
<td>3</td>
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<tr>
<td>General Elective</td>
<td>7-11</td>
</tr>
<tr>
<td>Total Semester Transfer Hours</td>
<td>60-64</td>
</tr>
</tbody>
</table>

*See note 2 on page 41.

**Must choose a 6 semester hour sequence in either Literature or History.

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

Pre-Health, Physical Education and Recreation
Associate in Science Degree
Transfer Guide

Available: Phil Campbell and Shoals Campuses
Advisor: M. Lee (5491) mlee@nwscc.edu
T. Shackelford (6260) shackelford@nwscc.edu

This guide is designed for students who plan to transfer to four-year institutions and major in various areas of health, physical education and recreation. Students should consult their advisor and the university to which they plan to transfer.

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Area I: Written Composition</td>
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<tr>
<td><em>ENG 101 and 102</em></td>
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</tr>
<tr>
<td>Area II: Humanities and Fine Arts</td>
<td>12</td>
</tr>
<tr>
<td>*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262... 6</td>
<td></td>
</tr>
<tr>
<td>SPH 107</td>
<td>3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 150/151/152, or SPA 101</td>
<td>3</td>
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<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 111, 112; CHM 111, 112; PHY 201, 202, 213, 214; ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210</td>
<td>4</td>
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<tr>
<td>Area IV: History, Social and Behavioral Science</td>
<td>12</td>
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<tr>
<td>*History: HIS 101 and 102 or HIS 201 and 202... 6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210</td>
<td>6</td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>20-23</td>
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<tr>
<td>CIS 146</td>
<td>3</td>
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<tr>
<td>PED or HED electives</td>
<td>11-14</td>
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<tr>
<td>General Electives</td>
<td>6</td>
</tr>
<tr>
<td>PED can be used as a general elective.</td>
<td></td>
</tr>
<tr>
<td>Total Semester Transfer Hours</td>
<td>61-64</td>
</tr>
</tbody>
</table>

*See note 2 on page 41.

***Some four-year institutions will not accept MTH 110 in Area III.

****Keyboarding skills are essential for the successful completion of English 101.
Pre-Industrial Hygiene  
**Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses
Advisor:  C. Sockwell (5378) sockwell@nwscc.edu
Mike Murphy (6246) docm@nwscc.edu

This guide is designed for students who plan to transfer to UNA to complete requirements for a degree. Students should consult their advisor and the university to which they plan to transfer.

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

**Semester Hours**

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
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</thead>
<tbody>
<tr>
<td>Area II: Humanities and Fine Arts</td>
<td>12</td>
</tr>
<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 among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, SPA 101</td>
<td>3</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, CHM 111, 112</td>
<td>8</td>
</tr>
<tr>
<td>Math: MTH 112 (higher is preferred) MTH 113, 125, 126</td>
<td>3</td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science</td>
<td>12</td>
</tr>
<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 among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOO 200, SOC 210</td>
<td>6</td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>19-23</td>
</tr>
<tr>
<td>CIS 146</td>
<td>3</td>
</tr>
<tr>
<td>Choose two from CHM 221, CHM 222, BIO 220</td>
<td>8</td>
</tr>
<tr>
<td>Choose two from MTH 125, MTH 126, MTH 265</td>
<td>7-8</td>
</tr>
<tr>
<td>General Electives</td>
<td>1-4</td>
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<tr>
<td>PED can be used as a general elective.</td>
<td></td>
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</table>

**Total Semester Transfer Hours** 60-64

*See note 2 on page 41.

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

Pre-Medicine  
**Associate in Science Degree**

**Transfer Guide**

Available: Phil Campbell and Shoals Campuses
Advisor:  J. Alls (6229) joe.alls@nwscc.edu
C. Sockwell (5378) sockwell@nwscc.edu

This guide is designed for students who plan to transfer to an institution with various types of professional programs to complete requirements for a degree. All pre-medical curricula have the same basic requirements. Students should consult their advisor and the university to which they plan to transfer.

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

**Semester Hours**

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area II: Humanities and Fine Arts</td>
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</tr>
<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 among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, SPA 101</td>
<td>3</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, CHM 111, 112; PHY 201, 202, 213, 214</td>
<td>8</td>
</tr>
<tr>
<td>Math: Choose one from MTH 112 (higher is preferred) MTH 113, 120, 125, 126, 227, 237, 238</td>
<td>3</td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science</td>
<td>12</td>
</tr>
<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 among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210</td>
<td>6</td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>19-23</td>
</tr>
<tr>
<td>CIS 146 or demonstrated equivalent computer competency skills. Choose from BIO 103, BIO 104, BIO 220, CHM 111, CHM 112, CHM 221, CHM 222, PHY 201, PHY 202, PHY 213, PHY 214, MTH 125, MTH 265</td>
<td>6</td>
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</tbody>
</table>

**Total Semester Transfer Hours** 60-64

*See note 2 on page 41.

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

Northwest-Shoals Community College 2016-2017
Pre-Nursing (B.S.N.) 240102 BSN  
Associate in Science Degree  
Transfer Guide

Available: Phil Campbell and Shoals Campuses  
Advisors: H. Johnson (5326) heatherj@nwscc.edu  
J. Alls (6229) joe.alls@nwscc.edu  
R. Trapp (5237/6288) rachel.trapp@nwscc.edu

This guide is designed for students who plan to transfer to a four-year institution for a Bachelor of Science Degree in Nursing (B.S.N.). To verify course transferability to a specific institution, students should consult their advisor and the university to which they plan to transfer.

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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</table>
| Area I: Written Composition .................................6  
**ENG 101 and 102** |
| Area II: Humanities and Fine Arts .........................12  
**Literature: ENG 271 and 272,  
ENG 251 and 252 or ENG 261 and 262 ....6  
SPH 107 ..............................................3  
E elective: Choose one course from among ART 100, MUS 101, PHL 106/206, REL 100/151/152, or SPA 101 .........3 |
| Area III: Natural Sciences and Mathematics .........11-12  
Science: Choose two core courses from among BIO 103, CHM 104, or CHM 111 ....8  
Math: Choose one from MTH 110***,  
112, 113, 120, 125, 126, 227, 237, 238 ..3-4 |
| Area IV: History, Social and Behavioral Science ......12  
**History**: HIS 101 and 102  
or HIS 201 and 202 ..................................6  
Social and Behavioral Sciences:  
Must take SOC 200 .........................3  
Choose one course from among ECO 231, ECO 232, GEO 100, POL 211, SOC 210 ..................3 |
| Area V: Pre-Professional, Pre-Major, and Elective Courses ........................................21  
**Must take BIO 201, BIO 202, BIO 220 ...12  
Choose three from PSY 200, PSY 210, MTH 265 or BUS 271 ..........9 |
| **Total Semester Transfer Hours ......................63-64** |

*See note 2 on page 41.

***Some institutions may accept MTH 110.

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

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

Pre-Optometry 240102 OPT  
Associate in Science Degree  
Transfer Guide

Available: Phil Campbell and Shoals Campuses  
Advisor: M. Murphy (6246) docm@nwscc.edu  
C. Sockwell (5378) sockwell@nwscc.edu

This guide is designed for students who plan to transfer to an institution with various types of professional programs to complete requirements for a degree. All these curricula have the same basic requirements. Students should consult their advisor and the university to which they plan to transfer.

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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</table>
| Area I: Written Composition ..................................6  
**ENG 101 and 102** |
| Area II: Humanities and Fine Arts .........................12  
**Literature: ENG 271 and 272,  
ENG 251 and 252 or ENG 261 and 262 ....6  
SPH 107 ..............................................3  
E elective: Choose one course from among ART 100, MUS 101, PHL 106/206*,  
REL 100/151/152, or SPA 101* ..........3 |
| Area III: Natural Sciences and Mathematics ........11  
Science: Choose two core courses from among BIO 103, 104; CHM 111, 112;  
PHY 201, 202, 213, 214 .........................8  
Math: Choose one from MTH 112 (higher is preferred) MTH 113, 120, 125, 126, 227, 237, 238 ..........3 |
| Area IV: History, Social and Behavioral Science ......12  
**History**: HIS 101 and 102  
or HIS 201 and 202 ..................................6  
Social and Behavioral Sciences:  
Choose two courses from among  
ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210,  
SOC 200, SOC 210 ..................6 |
| Area V: Pre-Professional, Pre-Major, and Elective Courses ........................................19-23  
CIS 146 or demonstrated equivalent computer competency skills.  
Choose from BIO 103, BIO 104, BIO 220,  
CHM 111, CHM 112, CHM 221, CHM 222,  
PHY 201, PHY 202, PHY 213, PHY 214,  
MTH 125, MTH 265 |
| **Total Semester Transfer Hours ......................60-64** |

*See note 2 on page 41.

**Keyboarding skills are essential for the successful completion of English 101.
# Pre-Pharmacy

**Associate in Science Degree**

**Transfer Guide**

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

This guide is designed for students who plan to transfer to an institution offering a degree in pharmacy. Students should consult their advisor and the university to which they plan to transfer.

**Entering students are required to complete ORI 107.**

**Transfer students are exempt from this requirement.**

### Semester Hours

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>.....................</th>
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<tbody>
<tr>
<td><strong>ENG 101 and 102</strong></td>
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<td>Area II: Humanities and Fine Arts</td>
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</tr>
<tr>
<td>*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ....</td>
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<td></td>
</tr>
<tr>
<td>SPH 107</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101*</td>
<td>3</td>
<td></td>
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<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>................</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two core courses from among BIO 103, 104; CHM 111, 112; PHY 201, 202, 213, 214</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Math: MTH 112 (higher is preferred)</td>
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<td>3</td>
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<tr>
<td>MTH 113, 120, 125, 126, 227, 237, 238</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science</td>
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<td>12</td>
</tr>
<tr>
<td>*History: HIS 101 and 102 or HIS 201 and 202</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>................</td>
<td>19-23</td>
</tr>
<tr>
<td>Choose from BIO 103, BIO 104, BIO 201, BIO 202, BIO 220, CIS 130, CIS 146, CHM 111, CHM 112, CHM 221, CHM 222, PHY 201, PHY 202, PHY 213, PHY 214, MTH 113, MTH 125, MTH 265</td>
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<td></td>
</tr>
<tr>
<td><strong>Total Semester Transfer Hours</strong></td>
<td>................</td>
<td>60-64</td>
</tr>
</tbody>
</table>

*See note 2 on page 41.

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

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# Pre-Physical Therapy

**Associate in Science Degree**

**Transfer Guide**

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

This guide is designed for students who plan to transfer to a four-year institution to complete requirements for an M.S. in Physical Therapy. To verify course transferability, students should consult an advisor and program to which they plan to transfer.

**Entering students are required to complete ORI 107.**

**Transfer students are exempt from this requirement.**

### Semester Hours

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>.....................</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENG 101 and 102</strong></td>
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<tr>
<td>Area II: Humanities and Fine Arts</td>
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</tr>
<tr>
<td>*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ....</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SPH 107</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA 101*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics</td>
<td>................</td>
<td>11</td>
</tr>
<tr>
<td>Science: Choose two courses from among BIO 103, BIO 104, CHM 111, CHM 112, PHY 201, PHY 202, PHY 213, PHY 214</td>
<td>8</td>
<td></td>
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<tr>
<td>Math: MTH 112 (higher is preferred)</td>
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<td>3</td>
</tr>
<tr>
<td>MTH 113, MTH 120, MTH 125, MTH 126</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science</td>
<td>..........</td>
<td>12</td>
</tr>
<tr>
<td>*History: HIS 101 and 102 or HIS 201 and 202</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Area V: Pre-Professional, Pre-Major, and Elective Courses</td>
<td>................</td>
<td>19-23</td>
</tr>
<tr>
<td>Choose from BIO 103, BIO 104, BIO 201, BIO 202, BIO 220, CIS 130, CIS 146, CHM 111, CHM 112, CHM 221, CHM 222, PHY 201, PHY 202, PHY 213, PHY 214, MTH 113, MTH 125, MTH 265</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Semester Transfer Hours</strong></td>
<td>................</td>
<td>60-64</td>
</tr>
</tbody>
</table>

**See note 2 on page 41.**

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

---

Northwest-Shoals Community College 2016-2017
**Pre-Veterinary Medicine**  240102 VET

**Associate in Science Degree**

**Transfer Guide**

**Available:** Phil Campbell and Shoals Campuses

**Advisors:**
- C. Sockwell (5378) sockwell@nwscc.edu
- M. Landrum (8022) mperry@nwscc.edu
- C. Smith (5394) chesssmith@nwscc.edu

This guide is designed for students who plan to transfer to an institution offering a degree in veterinary medicine. Students should consult their advisor and the university to which they plan to transfer.

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

**Semester Hours**

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

<table>
<thead>
<tr>
<th>Area II: Humanities and Fine Arts</th>
<th>..........................</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literature:</strong> ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262</td>
<td>..........................</td>
<td>6</td>
</tr>
<tr>
<td>SPH 107</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

| Elective: Choose one course from among ART 100, MUS 101, PHL 106/206*, REL 100/151/152, or SPA101* | .......................... | 3 |

<table>
<thead>
<tr>
<th>Area III: Natural Sciences and Mathematics</th>
<th>..........................</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science: Choose from MTH 113, 120, 125, 126, 227, 237, 238</td>
<td>..........................</td>
<td>3</td>
</tr>
</tbody>
</table>

| Area IV: History, Social and Behavioral Science | .......................... | 12 |
| History: HIS 101 and 102 or HIS 201 and 202 | .......................... | 6 |
| Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210 | .......................... | 6 |

| Area V: Pre-Professional, Pre-Major, and Elective Courses | .......................... | 19-23 |
| Choose from CHM 111, CHM 112, CHM 221, CHM 222, PHL 206, PHY 201 or PHY 213, CIS 146 | .......................... | 6 |

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

*See note 2 on page 41.

***Mississippi State science requirements may differ.

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

---

**Water and Wastewater**  240102 WWT

**Management and Technology**

**Associate in Science Degree**

**Transfer Guide**

**Available:** Shoals Campus

**Advisor:**
- M. Murphy (6246) docm@nwscc.edu
- T. Maupin (5247) tmaupin@nwscc.edu

*This guide is designed for students who plan to transfer to four-year institutions offering a degree in water and wastewater management and technology. Also see the short-term certificate program. Students should consult their advisor and the university to which they plan to transfer.

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

**Semester Hours**

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

<table>
<thead>
<tr>
<th>Area II: Humanities and Fine Arts</th>
<th>..........................</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literature:</strong> ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262</td>
<td>..........................</td>
<td>6</td>
</tr>
<tr>
<td>SPH 107</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

| Elective: Choose one course from among ART 100, MUS 101, PHL 106/206**, REL 100/151/152, or SPA101* | .......................... | 3 |

<table>
<thead>
<tr>
<th>Area III: Natural Sciences and Mathematics</th>
<th>..........................</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science: Choose two core courses from among CHM 104, 105, 111, and 112 (Chemistry Sequence Preferred) BIO 103, 104, PHY 201, 202, 213, 214</td>
<td>..........................</td>
<td>8</td>
</tr>
<tr>
<td>PHS 111, 112, 120*</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

| Math: Choose one from above              | .......................... | 3 |

| Area IV: History, Social and Behavioral Science | .......................... | 12 |
| History: HIS 101 and 102 or HIS 201 and 202 | .......................... | 6 |
| Social and Behavioral Sciences: Choose two courses from among ECO 231, GEO 100, POL 210, PSY 200, PSY 210, SOC 200, SOC 210 | .......................... | 6 |

| Area V: Pre-Professional, Pre-Major Courses | .......................... | 21 |
| WMT 290, WMT 291 or CIS Elective* | .......................... | 3 |
| WMT 100, WMT 101, WMT 102, WMT 120, WMT 213, WMT 214 | .......................... | 18 |

**Total Semester Transfer Hours **..........................63

*This program specifically links to the Public Safety Administration program at Athens State University. Students transferring to other institutions should consult with the senior institution concerning transferability of PHS 120 and the WMT classes.

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

***See note 2 on page 41.
Water and Wastewater Management and Technology Short-Term Certificate

Available: Shoals Campus
Advisors: M. Murphy (6246) docm@nwscc.edu
T. Maupin (5247) tmaupin@nwscc.edu

This short-term certificate is designed to prepare students for employment in positions related to water and wastewater. Also, see the A.S. Degree program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMT 100 Water Supply and Wastewater Control</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WMT 101 Introduction to Water Treatment</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMT 102 Introduction to Wastewater Treatment</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Processes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMT 120 Sanitary Chemistry and Biology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WMT 213 Water and Wastewater Instrumentation</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>and Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMT 214 Basic Hydraulics for Water</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>and Wastewater Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WMT 290 Industrial Internship I or WMT</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>291 Municipal Internship I or CIS Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Semester Credit Hours: 22
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, and some do not require a high school diploma for admission. 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

Child Development.................................................190708 CHD
Computer Information Systems Technology
PC Maintenance/Security Option..........................110101 MSO
Software Development Option............................110101 SDO
Criminal Justice...................................................430107 CRJ
Design Engineering Technology...........................151301 D&D
Electronics Technology..........................................470105 IIT
Emergency Medical Services...............................510904 EMP
Environmental Health and Safety Technician............150507 EVT
Industrial Systems Technology
Air Conditioning and Refrigeration Option..............470303 IAR
Electrical Option..................................................470303 IEO
Injection Molding Technology Option....................470603 IIM
Mechanical Option..............................................470303 IMO
Medical Assisting Technology..............................510801 MAT
Office Administration
Accounting Option...............................................520401 OAO
Administrative Professional Option.......................520401 OAP
Clerical Option..................................................520401 OCO
Registered Nursing.............................................513801 NUR
Salon and Spa Management
Cosmetology Option............................................120412 SCO
Esthetics Option..................................................120412SEO
Associate in Occupational Technology Degree

Accounting Technology.........................................309999 AOB/AOD
Air Conditioning/Refrigeration Technology.............309999 AET/AWT
Automotive Collision Repair.................................309999 ABB/AAB/AWT
Automotive Service Technology............................309999 AUR/AMT
Carpentry/Cabinetmaking......................................309999 CBU/CCW
Electrical Technology..........................................309999 EAC
Machine Shop Technology.....................................309999 MWT
Welding..............................................................309999 WCR/WMS/AUT/WAC

Career Certificates

Accounting Technology.........................................520302 ACT
A/C-Refrigeration Technology...............................150501 ACR
Automotive Collision Repair..................................470603 ABR
Automotive Service Technology.............................470604 AST
Carpentry/Cabinetmaking.......................................460201 CAR
Electrical Technology............................................460302 ELT
Industrial Systems Technology - Mechanical..............470303 IMC
Machine Tool/Computer Numerical Control (CNC)........480503 MSP
Office Administration...........................................520401 OAD
Paramedic............................................................510904 EMS
Practical Nursing (LPN).........................................511613 LPN
Salon and Spa Management
Cosmetology Option.............................................120412 SSC
Esthetics Options...............................................120412
SSE
Welding..............................................................480508 WEL

Short-Term General Certificates

Basic Automotive Service Technology.....................470604 AUM
Advanced Automotive Service Technology...............470604 AAS
Air Conditioning/Refrigeration Tech. Basic.............150501 ARB
Air Conditioning/Refrigeration Tech. Level 1...........150501 ACR
Air Conditioning/Refrigeration Tech. Level 2...........150501 ACR
Air Conditioning/Refrigeration Tech. Level 3...........150501 ACR
Basic Automotive Collision Repair.......................470603 AUC
Biomedical Equipment Technology........................150401 BET
Basic Cabinetmaking............................................480703 CAB
Basic Carpentry...................................................480201 BC
Chemical Laboratory Technician............................410301 CHM
Child Development.............................................190708 CHD
Computer Aided Design Engineering Technology........151301 DDT
Computer Technology
PC Maintenance/Security Technician.....................110101 PCH
PC Software Technician........................................110101 PCT
EMT.................................................................510904 EMT
Advanced EMT....................................................510904 EMA
Energy Management Technology............................150503 ECT
Environmental, Health & Safety Technician..............150507 EHS
Fire Science/Fire Services Management..................430202 FSC
Industrial Systems Technology..............................470303 INS
Injection Molding Technology...............................470303 IMT
Medical Assisting Technology
Phlebotomy Option...............................................510801 PBV
Medical Billing and Coding Option.........................510801 MCO
Water & Wastewater Management........................150506 W&M
Basic Welding Technology....................................480508 WDT
Basic SMAW (Stick)..............................................480508 WBS
FCAW/GMAW (MIG/Flux Cored)............................480508 WFG
GTAW Plate and Pipe (TIG)...................................480508 WPP
SMAW Groove and Pipe (Stick).............................480508 WGP

Northwest-Shoals Community College 2016-2017
Allied Health - Linkage Programs
Clinical Laboratory Technician........................................ 510899 GEL
Dental Assisting.................................................................. 510899 GEL
Dental Hygiene..................................................................... 510899 GEL
Diagnostic Imaging.............................................................. 510899 GEL
Diagnostic Medical Sonography.......................................... 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................................................................. 511614 NAS

Associate in Applied Science Degrees
These degrees are designed for students who want to prepare for a specific career or occupational employment and who do not plan to transfer to four-year institutions. While most of the coursework is transferable, the degrees lack the extent of a general education which facilitates transfer.

General Education Core for Associate in Applied Science Degree
Entering students are required to complete ORI 101.
Transfer students are exempt from this requirement.

General Education Requirements Semester Hours
Area I: Written Composition ................................................. 3
* A minimum of 3 hours is required from Area I.
Area II: Humanities and Fine Arts ......................................... 3
* A minimum of 3 hours is required from Area II, but
9 hours are required from both Areas I and II.
Area III: Natural Sciences and Mathematics ...................... 9
Three hours must be in Mathematics and
6 hours may be distributed in Mathematics,
Science, Computer Science, Environmental
Technology 101 (PHS 120)
Area IV: History, Social and Behavioral Science ................. 3
Area V: Technical Concentration and Electives.................... 39
CIS 146 or demonstrated equivalent computer
competency skills. A student evaluated with such
skills must successfully complete an additional
three-hour elective from any Area in lieu of
CIS 146.

General Education Core..................................................... 22
Technical Concentration.................................................... 30
Total Minimum....................................................................... 60

Total Maximum....................................................................... 76

Child Development 190708 CHD
Associate in Applied Science Degree
Available: Phil Campbell and Shoals Campus
Advisors: D. Durdunji (5450) durdunj@dwscc.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.

General Education Requirements Semester Hours
ORI 107 Student Success..................................................... 1
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: ...................... 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
Choose one math from among: ........................................... 3
MTH 110 Mathematical Applications
MTH 100 Intermediate College Algebra
MTH 115 Finite Mathematics
MTH 112 Precalculus Algebra
BIO 103 Principles of Biology I .......................................... 4
BIO 104 Principles of Biology II OR
PHS 111 Physical Science I ................................................. 4
Area IV: History, Social and Behavioral Science .................... 9
PSY 200 General Psychology .............................................. 3
SOC 200 Introductory to Sociology ...................................... 3
SOC 247 Marriage and the Family ...................................... 3
Area V: Technical Concentration and Electives ..................... 36
CIS 146 Microcomputer Applications ................................. 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

General Education Core....................................................................................33
Technical Concentration....................................................................................36
Total Semester Credit Hours .............................................................................69
**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. Durdunji (5450) durdunji@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.

Computer Information Systems Technology Associate in Applied Science Degree

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

The CIS Technology degree is designed to prepare students for employment in Information Processing. Graduation from high school or the equivalent qualifies a prospective student for enrollment in CIS Technology. The two-year suggested curriculum is designed to develop computer personnel capable of planning, writing, and installing commercial software on modern database computers. Students pursuing the PC Maintenance/Security Option will receive training in networking and security technology used on common PC systems. Students pursuing the Software Development Option are trained on the IBM AS/400, personal computers and/or mobile devices.

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

PC Maintenance/Security Option 110101 PCS

General Education Requirements Semester Hours

ORI 107 Student Success .................................................................1
Area I: Written Composition.................................................................6
ENG 101 English Composition.........................................................3
ENG 102 English Composition.........................................................3
OR ENG 130 Technical Report Writing ............................................3
Area II: Humanities and Fine Arts .....................................................6-7
SPH 107 Fundamentals of Public Speaking ........................................3
Humanities or Fine Arts Elective: Choose one from among: ..................3-4
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
Choose one from among: .................................................................3
MTH 116 Mathematical Applications
MTH 246 Mathematics of Finance

Area IV: History, Social and Behavioral Science ................................3
History, Social and Behavioral Science Elective: 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 211 American National Government
PSY 200 General Psychology
PSY 210 Human Growth and Development
SOC 200 Introduction to Sociology
SOC 210 Social Problems

### Area V: Technical Concentration and Electives 57

<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>***CIS 146 Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 147 Advanced Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>*CIS 148 Post Advanced Microcomputer App.</td>
<td>3</td>
</tr>
<tr>
<td>CIS 150 Intro. to Computer Logic &amp; Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 182 Help Desk Applications</td>
<td>3</td>
</tr>
<tr>
<td>*CIS 199 Network Communications</td>
<td>3</td>
</tr>
<tr>
<td>CIS 212 Visual Basic Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 214 Security Analysis</td>
<td>3</td>
</tr>
<tr>
<td>CIS 245 Cyber Defense</td>
<td>3</td>
</tr>
<tr>
<td>CIS 249 Microcomputer Operating Systems</td>
<td>3</td>
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<tr>
<td>CIS 251 C++ Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 255 JAVA Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 263 Computer Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>CIS 280 Network Security</td>
<td>3</td>
</tr>
<tr>
<td>*CIS 281 Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>**CIS ELECTIVES</td>
<td>6</td>
</tr>
</tbody>
</table>

### General Education Core 19-20

### Total Semester Credit Hours 76-77

*These courses are offered only in the summer.

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

***Students without prior computer knowledge of keyboarding should enroll in CIS 096.

### Software Development Option 110101 PO

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

#### General Education Requirements Semester Hours

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORI 107 Student Success</td>
<td>1</td>
</tr>
<tr>
<td><strong>Area I: Written Composition</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>ENG 101 English Composition I</strong></td>
<td>3</td>
</tr>
<tr>
<td>ENG 102 English Composition II or ENG 130 Technical Report Writing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Area II: Humanities and Fine Arts</strong></td>
<td>6-7</td>
</tr>
<tr>
<td>SPH 107 Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Humanities or Fine Arts Elective: Choose one from among:</td>
<td>3</td>
</tr>
<tr>
<td>ENG 251 American Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 252 American Literature II</td>
<td></td>
</tr>
<tr>
<td>ENG 261 English Literature I</td>
<td></td>
</tr>
<tr>
<td>ENG 262 English Literature II</td>
<td></td>
</tr>
<tr>
<td>ART 100 Art Appreciation</td>
<td></td>
</tr>
<tr>
<td>MUS 101 Music Appreciation</td>
<td></td>
</tr>
<tr>
<td>PHL 106 Introduction to Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHL 206 Ethics and Society</td>
<td></td>
</tr>
<tr>
<td>REL 100 History of World Religions</td>
<td></td>
</tr>
<tr>
<td>REL 151 Survey of the Old Testament</td>
<td></td>
</tr>
<tr>
<td>REL 152 Survey of the New Testament</td>
<td></td>
</tr>
<tr>
<td>SPA 101 Introductory Spanish</td>
<td></td>
</tr>
<tr>
<td><strong>Area III: Natural Sciences and Mathematics</strong></td>
<td>3</td>
</tr>
<tr>
<td>MTH 100 Intermediate College Algebra</td>
<td>3</td>
</tr>
<tr>
<td><strong>Area IV: History, Social and Behavioral Science</strong></td>
<td>3</td>
</tr>
<tr>
<td>History, Social and Behavioral Science Elective:</td>
<td>3</td>
</tr>
</tbody>
</table>

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 Microeconomics
ECO 232 Principles of Microeconomics
GEO 100 World Regional Geography
POL 211 American National Government
PSY 200 General Psychology
PSY 210 Human Growth and Development
SOC 200 Introduction to Sociology
SOC 210 Social Problems

### Area VI: Technical Concentration and Electives 54

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS 241 Principles of Accounting I</td>
<td>3</td>
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<tr>
<td>BUS 242 Principles of Accounting II</td>
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<td>***CIS 146 Microcomputer Applications</td>
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<td>CIS 147 Advanced Microcomputer Applications</td>
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<tr>
<td>CIS 150 Intro. to Computer Logic and Programming</td>
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<tr>
<td>CIS 155 Mobile App Development</td>
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<td>CIS 182 Help Desk Applications</td>
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<td>*CIS 199 Network Communications</td>
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<td>*CIS 205 Control Language and Utilities Applications</td>
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<td>CIS 207 Introduction to Web Development</td>
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<td>CIS 212 Visual Basic Programming</td>
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<td>CIS 233 Trends in Technology</td>
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<td>CIS 255 JAVA Programming</td>
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<td>CIS 263 Computer Maintenance</td>
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<td>*CIS 281 System Analysis and Design</td>
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</table>

### General Education Core 19-20

### Technical Concentration 54

### Total Semester Credit Hours 73-74

*These courses are offered only in the summer.

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

***Students without prior computer knowledge of keyboarding should enroll in CIS 096.
Computer Technology 110101 PMT

PC Maintenance/Security Technician Short-Term Certificate

Available: Shoals Campus
Advisors: T. Roberson (5276) robsen@nwscss.edu
S. Chandler (5234) schandler@nwscss.edu
J. James (6234/5346) jamesje@nwscss.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 PC Maintenance/Security Technician.

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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<tr>
<td><strong>CIS 146 Microcomputer Applications</strong> .................................. 3</td>
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<tr>
<td><strong>CIS 214 Security Analysis</strong> .................................................. 3</td>
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<tr>
<td><strong>CIS 245 Cyber Defense</strong> ......................................................... 3</td>
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<td><strong>CIS 249 Microcomputer Operating Systems</strong> .......................... 3</td>
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<td><strong>CIS 263 Computer Maintenance</strong> ............................................. 3</td>
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<tr>
<td><strong>CIS 280 Network Security</strong> ..................................................... 3</td>
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<td><strong>Total Semester Credit Hours</strong> .............................................. 27</td>
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</table>

*Course offered during summer semester only.

***Students without prior computer knowledge or keyboarding should enroll in CIS 096.

Computer Technology 110101 PST

PC Software Technician Short-Term Certificate

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

<table>
<thead>
<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
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<td><strong>CIS 148 Post Advanced Microcomputer Applications</strong> ............. 3</td>
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<td><strong>CIS 263 Computer Maintenance</strong> ............................................. 3</td>
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<td><strong>CIS 281 System Analysis and Design</strong> .................................. 3</td>
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<tr>
<td><strong>MTH 246 Mathematics of Finance OR</strong> .............................. 3</td>
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<tr>
<td><strong>MTH 116 Mathematical Applications</strong> .................................. 3</td>
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<td><strong>Total Semester Credit Hours</strong> .............................................. 24</td>
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</table>

***Students without prior computer knowledge or keyboarding should enroll in CIS 096.

Criminal Justice 430107 CRJ

Associate in Applied Science Degree

Available: Phil Campbell and Shoals Campuses
Advisor: E. Bowen (5303) eddie.bowen@nwscss.edu
K. Brackins (6242) kbrackins@nwscss.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.

<table>
<thead>
<tr>
<th>General Education Requirements Semester Hours</th>
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<tbody>
<tr>
<td><strong>ORI 107 Student Success</strong> ................................. 1</td>
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<td><strong>Area I: Written Composition</strong> ......................... 6</td>
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<td><strong>ENG 101 English Composition I</strong> ....................... 3</td>
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<td><strong>ENG 102 English Composition II</strong> ..................... 3</td>
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<td><strong>SPH 107 Fundamentals of Public Speaking</strong> .......... 3</td>
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<td><strong>ENG 251 American Literature I</strong> ....................... 3</td>
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<td><strong>Area III: Natural Sciences and Mathematics</strong> .......... 3</td>
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<td><strong>MTH 116 Mathematical Applications</strong> .................. 3</td>
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<td><strong>MTH 246 Mathematics of Finance</strong> ..................... 3</td>
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<td><strong>Area IV: History, Social and Behavioral Science</strong> .... 9</td>
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<td><strong>PSY 200 General Psychology</strong> ............................ 3</td>
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<td><strong>POL 211 American Government or U.S. History</strong> ...... 3</td>
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<td><strong>SOC 200 Introduction to Sociology</strong> ................... 3</td>
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<td><strong>Area V: Technical Concentration and Electives</strong> ..... 36</td>
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<tr>
<td><strong>CIS 146 Microcomputer Applications</strong> .................. 3</td>
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<td><strong>CIS 249 Microcomputer Operating Systems</strong> ............ 3</td>
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<td><strong>CIS 281 System Analysis and Design</strong> ................. 3</td>
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<td><strong>CRJ 100 Introduction to Criminal Justice</strong> .......... 3</td>
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<td><strong>CRJ 110 Introduction to Law Enforcement</strong> ........... 3</td>
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<td><strong>CRJ 140 Criminal Law and Procedure</strong> ................ 3</td>
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<td><strong>CRJ 146 Criminal Evidence</strong> ............................... 3</td>
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<tr>
<td><strong>CRJ 216 Police Organization and Administration</strong> .... 3</td>
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<td><strong>CRJ 220 Criminal Investigation</strong> ....................... 3</td>
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Northwest-Shoals Community College 2016-2017
**Design Engineering** 151301 D&D Technology

**Associate in Applied Science Degree**

Available: Shoals Campus

Advisors: A. Rice (5257) rice@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 draftsperson, 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.**

### General Education Requirements

<table>
<thead>
<tr>
<th>Area</th>
<th>Hours</th>
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<td><strong>Area I: Written Composition</strong></td>
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<tr>
<td><em>ENG 130 Technical Report Writing</em></td>
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<td>Humanities or Fine Arts elective:</td>
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<td>ENGL 251 American Literature I</td>
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<td>ENGL 252 American Literature II</td>
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**Note:** Three Drafting Electives totaling 8 semester hours are required. Students should consult with advisor concerning other possible electives from other program areas.

*Students who have completed ENG 130 prior to Spring 2000, and students substituting ENG 102 must take Speech.

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

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

### Design Engineering Technology Electives:

<table>
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<th>Course Code</th>
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<th>Theory</th>
<th>Lab</th>
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<tr>
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<tr>
<td>DDT 220</td>
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<tr>
<td>DDT 231</td>
<td>Advanced CAD</td>
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<td>DDT 233</td>
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### General Education Core

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### Area II: Humanities and Fine Arts Electives

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### Design Engineering Technology Electives

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### Natural Sciences and Mathematics

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### History, Social and Behavioral Science

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### Technical Concentration and Electives

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<th>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDT 104</td>
<td>Basic Computer Aided Drafting and Design</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 110</td>
<td>Fundamental Drafting and Design</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 117</td>
<td>Manufacturing Processes</td>
<td>3</td>
<td>0</td>
<td>3</td>
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<tr>
<td>DDT 124</td>
<td>Intro to Technical Drafting</td>
<td>1</td>
<td>4</td>
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</tr>
<tr>
<td>DDT 127</td>
<td>Intermediate Computer Drafting and Design</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 139</td>
<td>Machine Drafting Basics</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 132</td>
<td>Architectural Drafting</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 134</td>
<td>Descriptive Geometry</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 181E</td>
<td>Special Topics-Work Ethics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DDT 211</td>
<td>Intermediate Machine Drafting</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 220</td>
<td>Advanced Technical Drafting</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 231</td>
<td>Advanced CAD</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DDT 233</td>
<td>Solids Modeling</td>
<td>1</td>
<td>4</td>
<td>5</td>
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<tr>
<td>DDT 227</td>
<td>Strengths of Material</td>
<td>4</td>
<td>0</td>
<td>4</td>
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<tr>
<td>DDT 229</td>
<td>Drafting and Design Electives</td>
<td>X</td>
<td>X</td>
<td>8</td>
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</table>
Curriculum is designed with an emphasis on communications, and robotics. The Industrial Electronics digital electronics, programmable logic control systems, enable the student to become an electronic technician.

The Electronics Technology Program is designed to develop electronics, mechanical and networking skills to enable the student to become an electronic technician. Electronic technicians are involved in working with analog/digital electronics, programmable logic control systems, communications, and robotics. The Industrial Electronics curriculum is designed with an emphasis on providing a hands-on experience through numerous laboratory courses.

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

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

Computer Aided Design

Engineering Technology

Short-Term Certificate

Available: Shoals Campus
Advisor: A. Rice (5257) rice@nwsc.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>
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<td>Intermediate Computer Aided Drafting and Design</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DDT 231</td>
<td>Advanced CAD Drafting and Design Elective</td>
<td>X</td>
<td>X</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours: 15

Area I: Written Composition

Area II: Humanities and Fine Arts

Area III: Natural Sciences and Mathematics

Area IV: History, Social and Behavioral Science

Area V: Major Requirements

Minimum General Requirements

CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

Northwest-Shoals Community College 2016-2017
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

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 in association with the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (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 256.331.5435.

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 life-long 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).

Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North Suite 158, Clearwater, Florida 33756
Telephone: 727-210-2350 Fax: 727-210-2354
www.caahep.org

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, Crystal Reed, at 256.331.5249 or cingle@nwccc.edu

6. Be at least 18 years old (younger students who meet certain conditions may be allowed 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 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. 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)

Northwest-Shoals Community College 2016-2017
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 100 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 “C” 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 100 with a grade of “C” 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. Complete drug testing and/or background checks as directed by the Health Studies Division or clinical agency
5. Provide clinical documentation (example: FISDAP or data on a signed EMS Program letterhead of previous institution) for consideration
6. 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.
agencies associated with the program. Therefore, the program is not required to find an alternative site.

4. Earn a satisfactory clinical evaluation in all EMS courses with a clinical component
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
   f. Reinstatement to the EMS program is not guaranteed
   g. 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
      f. Students who are unsuccessful on the third (3rd) admission will be dismissed from the EMS program
      g. 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) $ 80.00
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 ($20 each semester enrolled in program)
Licensure Application Fee $10.00
NREMT Examination for EMT $ 70.00
NREMT Examination for AEMT $ 100.00
NREMT Examination for Paramedic $ 110.00
Background Checks $ 70.00
Tuition at published rate for courses in program of study
Course completion/certification cards $30.00
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 but are required for clinicals and to operate an ambulance.

**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 100 Intermediate College Algebra .................................................. 3
- BIO 202 Human Anatomy and Physiology II ......................................... 4

*Students completing EMS 189 are not required to complete BIO 202 for the Paramedic Certificate Program.*

- 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
- 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

**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
- 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 100 Intermediate College Algebra .................................................. 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

*Successful completion of BIO201 required PRIOR to admission*

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.
Environmental Health and Safety Technician 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.

General Education Requirements Semester Hours

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 ..............19
  MTH 103 Introduction to Technical Mathematics ..........3
  BIO 103 Principles of Biology I .........................4
  BIO 201 Human Anatomy and Physiology I ...............4
  CHM 104 Introduction to Inorganic Chemistry ..........4
  CHM 105 Introduction to Organic Chemistry ...........4

Area IV: History, Social and Behavioral Science .......3
  History, Social and Behavioral Science Elective:
    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 Human Growth and Development
      SOC 247 Introduction to Sociology
      SOC 210 Social Problems

Area V: Technical Concentration and Electives ...........36
  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 .....................................35
Technical Concentration ....................................36
Total Semester Credit Hours ................................71

*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.

*Students planning to transfer should take ENG 102 and SPH 107.

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

Environmental, Health & Safety Technician 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.

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 470303 IAR
Associate in Applied Science Degree

Air Conditioning and Refrigeration Option

Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@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 HVAC units.

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

General Education Requirements Semester Hours
ORI 107 Student Success ............................................. 1
Area I: Written Composition ........................................... 6
ENG 101 English Composition ....................................... 3
ENG 102 English Composition II OR
ENG 130 Technical Reporting Writing OR
SPH 107 Fundamentals of Public Speaking .................. 3
Area II: Humanities and Fine Arts .................................... 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 ..................... 10
MTH 100 Intermediate College Algebra OR MTH 103
Introduction to Technical Mathematics .................... 3
MTH 112 Precalculus Algebra OR MTH 118
Technical Mathematics .............................................. 3
PHY 115 Technical Physics ......................................... 4
Area IV: History, Social and Behavioral Science ................. 3
History: 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
Area V: Technical Concentration and Electives .................... 54
INT 120 Concepts of Direct Current ....................... 5
INT 122 Concepts of Alternating Current .................... 5
INT 130 Concepts of Digital Electronics ..................... 5
INT 158 Industrial Wiring I ....................................... 3
INT 184 Introduction to Programmable Logic Controllers........ 3
INT 206 Industrial Motors I ..................................... 3
INT 280C Special Topics in Industrial Maintenance Technology 3
ACR 111 Principles of Refrigeration .......................... 3
ACR 126 Commercial Heating Systems ..................... 3
ACR 127 HVACR Electric Motors .......................... 3
ACR 148 Heat Pump Systems I .............................. 3
ACR 149 Heat Pump Systems II ............................... 3
ACR 203 Commercial Refrigeration ..................... 3
ACR 209 Commercial Air Conditioning Systems ......... 3
ACR 210 Troubleshooting Air Conditioning Systems .... 3

General Education Core .............................................. 23
Technical Concentration ........................................... 54
Total Semester Credit Hours ....................................... 77

Industrial Systems Technology 470303 IEO
Associate in Applied Science Degree

Electrical Option

Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@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.

General Education Requirements Semester Hours
ORI 107 Student Success ............................................. 1
Area I: Written Composition ........................................... 6
ENG 101 English Composition I .................................. 3
ENG 102 English Composition II OR
ENG 130 Technical Reporting Writing OR SPH 107
Fundamentals of Public Speaking .............................. 3
Area II: Humanities and Fine Arts .................................... 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 ..................... 10
MTH 100 Intermediate College Algebra OR MTH 103
Introduction to Technical Mathematics .................... 3
MTH 112 Precalculus Algebra OR MTH 118
Technical Mathematics .............................................. 3
PHY 115 Technical Physics ......................................... 4
Area IV: History, Social and Behavioral Science ................. 3
History: 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
Area V: Technical Concentration and Electives .................... 53
INT 113 Industrial Motor Control I ....................... 3
INT 118 Fundamentals of Industrial Hydraulics and Pneumatics ........ 3
INT 120 Concepts of Direct Current ....................... 5
INT 122 Concepts of Alternating Current .................... 5
INT 123 Concepts of Solid State Electronics ............. 5
INT 130 Concepts of Digital Electronics ..................... 5
INT 158 Industrial Wiring I ....................................... 3
INT 161 Blueprint Reading for Industrial Technicians .. 3
INT 184 Introduction to Programmable Logic Controllers ........ 3
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

Northwest-Shoals Community College 2016-2017

Industrial Systems Technology 470303 IIM
Associate in Applied Science Degree

Injection Molding Technology Option
Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

This degree is designed to offer students entry level skills in the field of Plastic Injection Molding. A student who graduates should be able to operate and maintain all types of plastic injection equipment.

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

General Education Requirements  
Semester Hours
ORI 107 Student Success 1

Area I: Written Composition 6
ENG 101 English Composition I 3
ENG 102 English Composition II OR ENG 130 Technical Reporting Writing OR SPH 107 Fundamentals of Public Speaking 3

Area II: Humanities and Fine Arts 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 10
MTH 100 Intermediate College Algebra OR MTH 103 Introduction to Technical Mathematics 3
MTH 112 Precalculus Algebra OR MTH 118 Technical Mathematics 3
PHY 115 Technical Physics 4

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

Area V: Technical Certification and Requirements 54
INT 106 Elements of Industrial Mechanics 3
INT 113 Industrial Motor Control I 3
INT 117 Principles of Industrial Mechanics 3
INT 118 Fundamentals of Industrial Hydraulics and Pneumatics 3
INT 120 Concepts of Direct Current 5

Total Semester Credit Hours 76

INT 122 Concepts of Alternating Current 5
INT 130 Concepts of Digital Electronics 5
INT 139 Introduction to Robotic Programming 3
INT 184 Introduction to Programmable Logic Controllers 3
INT 284 Advanced Programmable Logic Controllers 3
INT 291 Cooperative Education 3
MSP 173 Injection Mold Setter Skills 3
MSP 175 Injection Mold Setting Skills Lab 3
MSP 273 Injection Mold Processing 3
MSP 275 Injection Mold Processing Lab 3
DDT 233 Solids Modeling 3

General Education Core 23
Technical Concentration 53

Total Semester Credit Hours 77

Injection Molding Technology 470303 IMT
Short-Term Career Certificate
Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@nwscc.edu

The Plastic Injection Molding program is designed to give students entry-level skills to be employed in the field of plant maintenance. In today's industry plant maintenance requires multi-skilled workers.

Semester Hours
DDT 233 Solids Modeling 3
INT 118 Fund. of Industrial Hydraulics and Pneumatics 3
INT 139 Introduction to Robotic Programming 3
INT 184 Intro. to Programmable Logic Controllers 3
MSP 173 Injection Mold Setter Skills 3
MSP 175 Injection Mold Setting Skills Lab 3
MSP 273 Injection Mold Processing 3
MSP 275 Injection Mold Processing Lab 3

Total Semester Credit Hours 24
**Industrial Systems Technology 470303 IMO**

**Associate in Applied Science Degree**

**Mechanical Option**

Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@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.

**General Education Requirements**

<table>
<thead>
<tr>
<th>Area</th>
<th>Title</th>
<th>Semester Hours</th>
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<tr>
<td>I</td>
<td>Technical Reporting Writing OR</td>
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<td>I</td>
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<td>V</td>
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<td>V</td>
<td>Principles of Industrial Pumps and Piping Systems</td>
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<td>V</td>
<td>Concepts of Digital Electronics</td>
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<td>V</td>
<td>Principles of Industrial Maintenance Welding and Metal Cutting Techniques</td>
<td>3</td>
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<td>Industrial Wiring I</td>
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<td>Introduction to Programmable Logic Controllers</td>
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</table>

**Total Semester Credit Hours** 76

**Industrial Systems Technology 470303 IMC**

**Career Certificate**

**Mechanical Certificate**

Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscc.edu
R. Garner (5289) wgarner@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.

**General Education Requirements**

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</table>

**Total Semester Credit Hours** 60

Northwest-Shoals Community College 2016-2017
Industrial Systems Technology 470303 INS
Short-Term Certificate
Available: Shoals Campus
Advisors: S. Harrison (5250) sam@nwscce.edu
R. Garner (5289) wgarner@nwscce.edu

The Industrial Mechanics program is designated to give students entry-level skills to be employed in the field of plant maintenance. In today’s industry plant maintenance requires multi-skilled workers. The classes are both theory and lab-based in order to produce a well-rounded mechanic.

<table>
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<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
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<td>MSP 136 Machine Repair</td>
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<tr>
<td>INT 117 Principles of Industrial Mechanics or</td>
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<td>MSP 135 Millwright</td>
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<td>WDT 158 Consumable Welding Processes</td>
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<td>MTH 103 Intro to Technical Math</td>
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<td>INT 118 Fundamentals of Industrial Hydraulics and Pneumatics</td>
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<td>Total Semester Credit Hours</td>
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</table>

Medical Assisting Technology 510801 MAT
Associate in Applied Science Degree
Available Shoals Campus
Advisors: M. Peebles (8074) mpeebles@nwscce.edu
K. McBay (8059) katherine.mcbay@nwscce.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 able to sit for the Registered Medical Assistant Examination administered by the American Medical Technologists. After successful completion of the exam, the individual will be a Registered 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.
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.

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 2.0 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.

Northwest-Shoals Community College 2016-2017
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 their place in the class. A signed consent to drug testing must accompany the acceptance confirmation. 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, 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 all required courses.

2. Math must be completed prior to taking MAT 216, Pharmacology for the Medical Office. Students must complete a drug calculation test with a score of at least 90.

3. The student will be allowed to repeat up to two courses with a grade lower than a “C”, providing their cumulative GPA does not fall below 2.0.

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.

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.

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 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 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
ii) 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 lifting 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 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

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 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, Crystal Reed at 256-331-5249 or cinple@crt.career.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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
</table>

**ORI 107  Student Success** 1
**Area I:** Written Composition 3
**Area II:** Humanities and Fine Arts 6-7
**Area III:** Natural Sciences and Mathematics 7
**Area IV:** History, Social and Behavioral Science 3
**Area V:** Technical Concentration & Requirements 50

**Total Semester Credit Hours** 70-71

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.

**Total Semester Credit Hours** ................................. 13

Medical Billing and Coding Option  510801 MCO
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.

**Total Semester Credit Hours** .................................27
Office Administration
Associate in Applied Science Degree

This degree is designed for students who wish to seek employment upon completing the prescribed curriculum. However, many of these courses may be used in transfer to four-year institutions with business programs.

Accounting Option 520401 OAO

Available: Phil Campbell and Shoals Campuses
Advisors: T. McClinton (5212) mcclinton@nwccc.edu
D. South (5211) dsouth@nwccc.edu
P. Peters (6326) ppeters@nwccc.edu

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>
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<tbody>
<tr>
<td>Area I: Written Composition</td>
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</tr>
<tr>
<td>**ENG 101 English Composition I</td>
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<tr>
<td>ENG 102 English Composition II</td>
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<tr>
<td>Area II: Humanities and Fine Arts</td>
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<tr>
<td>Humanities or Fine Arts Elective:</td>
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<tr>
<td>Choose one from among:</td>
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<tr>
<td>ENG 251 American Literature I</td>
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<tr>
<td>ENG 252 American Literature II</td>
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<td>ENG 261 English Literature I</td>
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<td>REL 151 Survey of the Old Testament</td>
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<td>MTH 116 Mathematical Applications</td>
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<td>Area IV: History, Social and Behavioral Science</td>
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<tr>
<td>ECO 231 Principles of Macroeconomics OR</td>
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<tr>
<td>Area V: Technical Concentration and Requirements 60</td>
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<tr>
<td>CIS 146 Microcomputer Applications</td>
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<td>CIS 249 Microcomputer Operating Systems</td>
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<td>ACT 249 Payroll Accounting</td>
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<tr>
<td>BUS 241 Principles of Accounting I</td>
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<tr>
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<tr>
<td>*OAD 101 Beginning Keyboarding</td>
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<td>OAD 103 Intermediate Keyboarding</td>
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<td>OAD 217 Office Management</td>
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<td>OAD 218 Office Procedures</td>
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<td>OAD ELECTIVE: Choose three courses from among: 9</td>
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<td>OAD 131 Business English</td>
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</table>

OAD 233 Trends in Office Technology
OAD 242 Office Internship
ACT 246 Microcomputer Accounting

General Education Core........................................16
Technical Concentration........................................60
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.

Administrative Professional Option 520401 OAP

Available: Phil Campbell and Shoals Campuses
Advisors: T. McClinton (5212) mcclinton@nwccc.edu
D. South (5211) dsouth@nwccc.edu
P. Peters (6326) ppeters@nwccc.edu

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

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Northwest-Shoals Community College 2016-2017
### Career, Technical and Occupational Programs

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>OAD 200</td>
<td>Machine Transcription</td>
<td>3</td>
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<tr>
<td>OAD 202</td>
<td>Legal Transcription</td>
<td>3</td>
</tr>
<tr>
<td>OAD 203</td>
<td>Legal Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OAD 211</td>
<td>Medical Terminology</td>
<td>3</td>
</tr>
<tr>
<td>OAD 212</td>
<td>Medical Transcription</td>
<td>3</td>
</tr>
<tr>
<td>OAD 214</td>
<td>Medical Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>OAD 215</td>
<td>Health Information Management</td>
<td>3</td>
</tr>
<tr>
<td>OAD 231</td>
<td>Office Applications</td>
<td>3</td>
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<tr>
<td>OAD 233</td>
<td>Trends in Office Technology</td>
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<tr>
<td>OAD 242</td>
<td>Office Internship</td>
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<tr>
<td>BUS 263</td>
<td>The Legal and Social Environment of Business</td>
<td>3</td>
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</tbody>
</table>

#### General Education Core
- **Semester Hours**: 16

#### Technical Concentration
- **Semester Hours**: 60

#### Total Semester Credit Hours
- **Semester Hours**: 76

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### Clerical Option

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OAD 218</td>
<td>Office Procedures</td>
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<tr>
<td>OAD ELECTIVE</td>
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<td>OAD 110</td>
<td>Computer Navigation</td>
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<td>OAD 137</td>
<td>Computerized Financial Record Keeping</td>
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#### General Education Core
- **Semester Hours**: 16

#### Technical Concentration
- **Semester Hours**: 51

#### Total Semester Credit Hours
- **Semester Hours**: 67

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### Office Administration

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#### General Education Core
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<td>OAD 101</td>
<td>Intermediate Keyboarding</td>
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<td>OAD 103</td>
<td>Advanced Keyboarding</td>
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<td>OAD 131</td>
<td>Business English</td>
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<td>Career and Professional Development</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>OAD 100</td>
<td>Beginning Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>OAD 101</td>
<td>Intermediate Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>OAD 103</td>
<td>Advanced Keyboarding</td>
<td>3</td>
</tr>
<tr>
<td>OAD 125</td>
<td>Word Processing</td>
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<tr>
<td>OAD 126</td>
<td>Advanced Word Processing</td>
<td>3</td>
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<tr>
<td>OAD 130</td>
<td>Electronics Calculations</td>
<td>3</td>
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<tr>
<td>OAD 131</td>
<td>Business English</td>
<td>3</td>
</tr>
<tr>
<td>OAD 132</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>OAD 134</td>
<td>Career and Professional Development</td>
<td>3</td>
</tr>
</tbody>
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### Northwest-Shoals Community College

2016-2017
OAD 135 Financial Record Keeping .......................... 3
OAD 138 Records/Information Management .................. 3
OAD 217 Office Management .................................... 3
OAD 218 Office Procedures ........................................ 3
Total Major Requirements ........................................... 39

OOD Electives
Choose three courses from among:
OAD 110, 137, 200, 202, 203, 211, 212, 214, 215, 231,
233, 242 and BUS 263 .................................................. 9

Total Semester Credit Hours ........................................... 55

*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.

Registered Nursing
Associate in Applied Science Degree

Available: Phil Campbell Campus
Advisors: A. Bales (6298) abales@nwsc.edu
P. Ford (5306) pford@nwsc.edu
M. Hester (6225) mhester@nwsc.edu
B. Humphres (6237) bhumphres@nwsc.edu
D. Jaynes (6221) dromans@nwsc.edu
M. Mays (6256) melissam@nwsc.edu
J. Sorrell (6244) jsorrell@nwsc.edu
D. Sykes (6249) d.sykes@nwsc.edu
C. Tice (6293) ctice@nwsc.edu
C. Tidwell (5305) cindy@nwsc.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 however, 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 (formerly NLNAC). Each agency’s address is provided:
Alabama Board of Nursing
RSA Plaza, Ste. 850
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.

ADMISION PROCEDURES AND REQUIREMENTS
A generic option and a mobility 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 mobility 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. This license must be maintained throughout the program. 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 admission criteria is currently under review and is subject to change.

GENERIC OPTION
Minimum admission standards for the Associate Degree Nursing Program include:
1. Unconditional admission to the College;
2. Good standing with the College;
3. Receipt of completed application for the Associate Degree Nursing Program by April 15th for fall admission annually;
4. Minimum of 2.50 cumulative grade point average based on the most recent 24 credit hours of college work completed and on academic status;
5. Eligible for English 101 (English Composition I) and MTH 100 (Intermediate College Algebra) or higher level as determined by college policy, and satisfaction of college reading requirement;
6. Completion of the TEASV with official scores on file in the NW-SCC Nursing office by application deadline. Test must have been completed within the last three years prior to the application deadline;
7. Essential functions required for nursing are met. (See Essential Functions)
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. The general education courses are offered on both the Shoals and Phil Campbell campuses. The general education courses can be taken before or during the program but taken no later than the semester specified in the curriculum plan. If a student has major responsibilities such as family or work; has been away from school for several years; or does not have a strong academic record, taking the general education courses prior to entry is recommended. Successful completion of science and other courses prior to application may result in higher ranking score and improve the chance of being admitted. Prior credit for general education courses does not shorten the length of the nursing curriculum due to sequencing of the nursing courses.

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

   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

Northwest-Shoals Community College 2016-2017
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

5. Professional Behavior
a) Convey caring, respect, sensitivity, tact, compassion,
   empathy, tolerance and a healthy attitude toward
   others
b) Demonstrate a mentally healthy attitude that is age
   appropriate in relationship to the client
c) Handle multiple tasks concurrently
d) Perform safe, effective nursing 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) Meet qualifications for licensure by examination as
   stipulated by the Alabama Board of Nursing
i) Not to pose a threat to self or others
j) Function effectively in situations of uncertainty and
   stress inherent in providing nursing care
k) Adapt to changing environments and situations
l) Remain free of chemical dependency
m) Report promptly to clinicals and remain for 6-12 hours
   on the clinical unit
n) Provide nursing care in an appropriate time frame
o) Accepts responsibility, accountability, and ownership
   of one’s actions
p) Seek supervision/consultation in a timely manner
q) Examine and modify one’s own behavior when it
   interferes with nursing 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 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 nursing program. The nursing 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: ADA Coordinator, Crystal Reed, at 256.331.5249 or cingle@nwscc.edu

MOBILITY OPTION
In addition to the general admission requirements, students applying to the mobility option must:

1. Have completed BIO 201, BIO 202, ENG 101 and MTH 100 (Intermediate College Algebra) or higher with a grade of “C” or higher.
2. Possess and maintain a current, active, and unencumbered Alabama LPN license. Proof must be on file.
4. Graduates of the approved Alabama Community College System PN standardized curriculum may be eligible to enter the ADN program during the third semester without taking NUR 200 if graduation occurred within the previous two years. All other Licensed Practical Nurses’ must successfully complete NUR 200.
5. MEET THE ADN APPLICATION DEADLINE: For the mobility option the deadlines are:
   Spring Admission - October 15 (NUR 200 required)
   Availability of this course is dependent upon sufficient demand. Contact Nursing Department for more information.
   Summer Admission - February 15 (NUR 200 exempted)

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 LPN program.)
Applicants will be notified in writing by the ADN office of acceptance into the ADN program.

TRANSFER POLICY
Students wishing to transfer must:

1. Must meet minimum admission and progression requirements for NW-SCC and the Nursing program.
2. Must possess a grade of C or better in all general education taken at another institution and possess a minimum of a 2.50 cumulative GPA or higher with a grade of “C” or higher.
3. Must be a graduate of a state approved school of practical nursing. Proof must be on file.
4. Must be a student in good standing and eligible to return to the previous nursing program.
5. Must complete the last three semesters in the ADN (RN) Program at NW-SCC.
6. Must complete the last two semesters in the PN Program at NW-SCC.

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.

Transfer deadline for Spring Semester - October 15
Transfer deadline for Summer Semester - February 15
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 a clinical agency.

2. Meet the Essential Functions with or without reasonable accommodations. Additional health criteria may be required by clinical agencies.

3. Purchase regulation uniforms and specified accessories.

4. Possess and maintain current certification in cardiopulmonary resuscitation at the health care provider level (BLS) by the American Health Association. Community CPR is not acceptable.

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 Nursing Department.

9. Participate in and pay for background checks as directed by the Nursing Department.

NOTICE: The Alabama Community College System Standardized Curriculum is continuing to be reviewed and analyzed. Modifications will be made as needed.

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 Education 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 clinical agencies for clinical experiences.

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 PPD, and freedom from chemical dependency and/or mental disorder.

8. Successfully complete the nursing education program:
   a) Within 48 months from initial enrollment in courses with an NUR prefix for ADN students, or
   b) Within 24 months from initial enrollment in courses with an NUR prefix for PN & LPN to RN Mobility students.

A student that has an unsuccessful attempt in a nursing 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 nursing courses in a term is considered one unsuccessful attempt.

If a student has been unsuccessful in the associate degree nursing program, the student may apply for admission to the practical nursing program. If a student has been unsuccessful in the mobility program, the student may apply for admission to the generic program.

REINSTATEMENT POLICY: (Readmission)
In order to continue in the nursing program, the student must:
1. Students whose progression through the nursing program is interrupted and who desire to be reinstated in the program must schedule an appointment with a nursing 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 nursing program by the following deadlines:
      Fall Semester - May 15
      Spring Semester - October 15
      Summer Semester - February 15
   c) Request reinstatement within one year from the term of withdrawal or failure;
   d) Demonstrate competency in previous nursing courses. This may be evaluated by testing and/or skills validation.
   e) Adhere to nursing curriculum and/or program policies and procedures effective at the point of reinstatement.

2. Reinstatement to the nursing 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 a clinical agency to accept the student for clinical experiences;
c) Twelve months have elapsed since the student was enrolled in a nursing course;
d) Student has been dismissed from the program.
Students dismissed from the previous program for disciplinary reasons and/or unsafe/unsatisfactory client care in the clinical area will not be allowed reinstatement to the nursing program.

4. A total of two unsuccessful attempts (D, F, or withdrawal) in the nursing program will result in dismissal.

5. 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.

6. Students who have two unsuccessful attempts in any nursing program (ADN/PN/Mobility) or combination of nursing programs 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;
   b) 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 nursing student shall comply with the standards that determine acceptable behavior of a nurse in accordance with 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.

For additional information or a copy of the complete Code, contact the Alabama Board of Nursing. Website: http://www.abn.state.al.us/main/downloads/admin-code/contents.html

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.

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<tr>
<th>Item</th>
<th>Cost</th>
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<td>Textbooks</td>
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<td>Standardized Tests</td>
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<td>Computer Software</td>
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<td>Annual Physical Exam, TB Test &amp; Shots</td>
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<td>Uniforms and Small Equipment</td>
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<td>Clinical Kit</td>
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<td>Drug Screening</td>
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<td>Graduation Pictures</td>
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<td>Graduation Pin (optional)</td>
<td>$500.00</td>
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<tr>
<td>RN Licensure Application Fee</td>
<td>$88.50</td>
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<tr>
<td>RN Temporary Permit (AL) (optional)</td>
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<td>Background Checks</td>
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<td>NCLEX-RN Review (optional)</td>
<td>$300.00</td>
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<tr>
<td>Tuition (Nursing Courses Only)</td>
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<tr>
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$4,893.50

Tuition (Nursing Courses Only)   $5,964.00
Parking Decal                      $20.00

$10,857.50

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 513801 NUR

**Associate in Applied Science Degree**

Available: Phil Campbell Campus  
Advisors: A. Bales (6298) abales@nwscc.edu  
P. Ford (5306) pford@nwscc.edu  
M. Hester (6250) mhester@nwscc.edu  
B. Humphres (6237) bhumphres@nwscc.edu  
D. Jaynes (6221) djaynes@nwscc.edu  
M. Mays (6256) mmays@nwscc.edu  
J. Sorrell (6244) jsorrell@nwscc.edu  
D. Sykes (6249) dsykes@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, 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 42 hours in nursing for a total of 72 hours. See your advisor for program completion options.

**Semester I**  
+MTH 100 (Intermediate College Algebra)  
+MTH 100 (Intermediate College Algebra) or Higher Level*                        3  
+BIO 201 Human Anatomy and Physiology I ........................................... 4  
+NUR 102 Fundamentals of Nursing .................................................... 6  
+NUR 103 Health Assessment ............................................................... 1  
+NUR 104 Introduction to Pharmacology .................................................. 1  
Semester Hours: 15  

**Semester II**  
+ENG 101 English Composition I**................................................. 3  
+BIO 202 Human Anatomy and Physiology II ....................................... 4  
+NUR 105 Adult Nursing ................................................................. 8  
+NUR 106 Maternal and Child Nursing ................................................. 5  
Semester Hours: 20  

**Semester III**  
+PSY 200 Psychology ................................................................. 3  
+BIO 220 Microbiology ................................................................. 4  
+NUR 201 Nursing Through the Lifespan I ......................................... 5  
Semester Hours: 12  

**Semester IV**  
+SPH 106 or 107 or 116 Speech ................................................... 3  
+ENG 102 Human Growth and Development .................................... 3  
+NUR 202 Nursing Through the Lifespan II ...................................... 6  
Semester Hours: 12  

**Semester V**  
+++Humanities Elective ................................................................. 3  
+NUR 203 Nursing Through the Lifespan III .................................... 6  
+NUR 204 Role Transition for the Registered Nurse  
(Preceptor 3:1) ................................................................. 4  
Total Semester Credit Hours ............................................... 72

---

### Registered Nursing 513801 MOB

**Mobility (LPN-RN) 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)**

Total Prerequisites: 14 credit hours

**Semester II (Spring)**  
(1st semester for mobility students)  
Semester Hours  
NUR 200 Nursing Career Mobility Assessment .................................. 6  
Contact Nursing Department for more information.

**NOTE:** Students that graduated from the Alabama College System Practical Nursing Curriculum within 2 years will not be required to take NUR 200.

**Semester III (Summer)**  
+PSY 200 Psychology ................................................................. 3  
+BIO 220 Microbiology ................................................................. 4  
+NUR 201 Nursing Through the Lifespan I ........................................ 5  
Semester Hours: 12  

**Semester IV**  
+NUR 203 Nursing Through the Lifespan III .................................... 6  
+NUR 204 Role Transition for the Registered Nurse  
(Preceptor 3:1) ................................................................. 4  
Skills Validations required for NUR 200. Upon successful completion of NUR 200, students will progress into NUR 201. Upon successful completion of the Mobility Program, students will receive non-traditional credit hours.

**Total Semester Credits** ....................................................... 72

*May choose from MTH 110, MTH 112, MTH 265, or equivalent.

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

*Must be completed with a grade of "C" or higher before or during the semester noted above. All other general education courses must be completed with a grade of "C" or higher in order to graduate.

+++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.

Northwest-Shoals Community College 2016-2017


**Practical Nursing Career Certificate**

Available: Shoals Campus  
Advisors:  
- P. Ford (5306) pford@nwscc.edu  
- B. Humphres (6237) bhumphres@nwscc.edu  
- C. Tidwell (5305) cindy@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 Plan is three semesters in length. Students are admitted in the Fall Semester.

**The admission criteria is currently under review and is subject to change.**

Students are admitted according to the following priority:

1. First time students  
2. Readmissions  
3. Transfer students with previous nursing education

**PRACTICAL NURSING GENERAL ADMISSION REQUIREMENTS:**

Minimum admission standards for Practical Nursing include:

1. Unconditional admission to the college.  
2. Receipt of completed application for the Practical Nursing Program by April 15th for the fall admission annually.  
3. Have a minimum of 2.50 cumulative grade point average based on the most recent 24 credit hours of college work completed and on clear academic status.  
4. Eligibility for English 101 and Math 116, MTH 100 (Intermediate College Algebra) or higher as determined by college policy and satisfaction of college reading requirement.  
5. Good standing with the college.  
6. Have taken the TEASV and have official scores on file in the NW-SCC nursing office by application deadline. **Test must have been completed within the last three years prior to the application deadline.**  
7. Meeting the essential functions or technical standards 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.

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**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 a 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. Possess current certification in cardiopulmonary resuscitation at the health care provider level (BLS). Community CPR is not acceptable. If a student is not certified with the appropriate CPR the student may take EMS 100 Cardiopulmonary Resuscitation I. This course meets the CPR requirement for two years.

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 RN and LPN programs: Essential Functions and Standards of Conduct.

**Progression Policy:** Please refer to the Progression Policy for Nursing Programs for the Alabama College System found in the Registered Nursing Section.

**Transfer Policy:** Please refer to the Transfer Policy for Nursing Programs for the Alabama College System found in the Registered Nursing Section. The following are specific policies for the PN Program for students wishing to transfer:
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

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. You must have attended a comparable nursing program approved by the appropriate State Board of Nursing.

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 $60.00
Uniforms(s) and necessary equipment $345.00
(stethoscope, watch with second hand, pen light, etc.)
Physical examination (Immunizations, if needed) $735.00
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.

Practical Nursing 513901 LPN Career Certificate

Semester I
+MTH 116 Mathematical Applications or Higher Level ...3
+BIO 201 Human Anatomy and Physiology I ..........4
NUR 102 Fundamentals of Nursing ...................... 6
NUR 103 Health Assessment ................................ 1
NUR 104 Introduction to Pharmacology ..............15

Semester II
+ENG 101 English Composition I ...................... 3
+BIO 202 Human Anatomy and Physiology II ....4
NUR 105 Adult Nursing .................................. 8
NUR 106 Maternal and Child Nursing .................5

Semester III
NUR 107 Adult/Child Nursing .......................... 8
NUR 108 Psychosocial Nursing .......................... 3
NUR 109 Role Transition for the Practical Nurse . 3

Total Semester Credit Hours ....................... 49

+Must be completed with a grade of "C" or higher before or during semester noted above.

Nursing Assistant 513902 NAS

Available: Shoals Campus
Advisors: B. Humphres (6237) bhumphres@nwscc.edu
C. Tidwell (5305) cindy@nwscc.edu

The Nurse Assistant course includes instruction in theory, nursing skills lab, and a clinical rotation in a health care facility. A basic introduction to the health field 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 80-hour nurse assistant course, NAS 100, approved by the Alabama Department of Health, the student will meet requirements to take the National Nurse Aide Assessment Program (NNAAP) Examination. The student must take and pass the NNAAP Examination within twenty-four (24) months of having successfully completed a state approved nurse aide training program. The Examination is given by the Nurse Aide Competency Evaluation Service (NACES) at Regional Test Sites. Students must be at least 18 years of age in order to take the State Nurse’s Aide Certification Test.

This certification enables the Nursing Assistant to obtain employment in nursing homes, hospitals, or home health care agencies.

Clinical requirements:
1. Ability to meet Essential functions requirements
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
Background Check $ 53.00
Clinical ID Badge $ 5.00
Certification Exam $ 100.00
Parking Decal $ 20.00

Northwest-Shoals Community College 2016-2017
Salon and Spa Management 120412 SCO
Associate in Applied Science Degree
Cosmetology Option

Available: Shoals Campus
Advisors: C. Bankston (5265) bankstonc@nwscce.edu
M. Grissom (5420) melinda.grissom@nwscce.edu

A degree program 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.

This course 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.

The 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.

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>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORI 107 Student Success .................................. 1</td>
</tr>
<tr>
<td>Area I: Written Composition................................ 3</td>
</tr>
<tr>
<td>**ENG 101 English Composition I ..................... 3</td>
</tr>
<tr>
<td>Area II: Humanities and Fine Arts........................ 6</td>
</tr>
<tr>
<td>SPH 107 Fundamentals of Public Speaking................ 3</td>
</tr>
<tr>
<td>Fine Arts Elective: Choose one from among:............ 3</td>
</tr>
<tr>
<td>ART 100 Art Appreciation OR</td>
</tr>
<tr>
<td>MUS 101 Music Appreciation</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics .......... 7</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications ........................ 3</td>
</tr>
<tr>
<td>PHS 111 Physical Science I ................................ 4</td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Science ...... 3</td>
</tr>
<tr>
<td>Choose one from among: ................................ 3</td>
</tr>
<tr>
<td>HIS 201 United States History I</td>
</tr>
<tr>
<td>PSY 200 General Psychology</td>
</tr>
<tr>
<td>SOC 200 Introduction to Sociology</td>
</tr>
</tbody>
</table>

Area V. Technical Concentration.......................... 48
CIS 146 Microcomputer Applications ..................... 3
COS 190 Internship in Cosmetology ...................... 3
SAL 201 Entrepreneurship for Salon/Spa ................. 3
SAL 133 Salon Management Technology .................. 3

Cosmetology Option
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 143 Specialty Hair Preparation Techniques ........ 3
COS 144 Hair Shaping and Design .......................... 3
COS 145 Hair Shaping Lab .................................... 3

General Education Core .................................. 20
Technical Concentration .................................. 48
Total Semester Credit Hours .............................. 68

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

Salon and Spa Management 120412 CSC
Career Certificate

Available: Shoals Campus
Advisors: C. Bankston (5265) bankstonc@nwscce.edu
M. Grissom (5420) melinda.grissom@nwscce.edu

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.

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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: Written Composition.......................... 3</td>
</tr>
<tr>
<td>**ENG101 English Composition I ...................... 3</td>
</tr>
<tr>
<td>Area III: Natural Sciences and Mathematics ....... 3</td>
</tr>
<tr>
<td>MTH116 Mathematical Applications .................... 3</td>
</tr>
</tbody>
</table>
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

Northwest-Shoals Community College 2016-2017

90 - Career, Technical and Occupational Programs

Area V. Technical Concentration
COS190 Internship in Cosmetology......................3
SAL133 Salon Management Technology..............3

Major Requirements
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 Lab....................3
COS118 Basic Spa Techniques..........................3
COS123 Cosmetology Salon Practices................3
COS143 Specialty Hair Preparation Tech.............3
COS144 Hair Shaping ......................................3
COS145 Hair Shaping Lab................................3

General Education Core .................................................7
Technical Concentration and Major ..............................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 one 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.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Lab</td>
</tr>
<tr>
<td>First Semester:</td>
<td></td>
</tr>
<tr>
<td>CIT 211 Teaching and Curriculum Development</td>
<td>3</td>
</tr>
<tr>
<td>CIT 212 Teacher Mentorship</td>
<td>0</td>
</tr>
<tr>
<td>CIT 213 Lesson Plan Development</td>
<td>0</td>
</tr>
<tr>
<td>Second Semester:</td>
<td></td>
</tr>
<tr>
<td>CIT 214 Lesson Plan Methods and Development</td>
<td>1</td>
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<tr>
<td>CIT 221 Lesson Plan Implementation</td>
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<tr>
<td>CIT 222 Instructional Materials and Methods</td>
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<tr>
<td>Third Semester:</td>
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<tr>
<td>CIT 223 Instructional Materials and Methods Applications</td>
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<tr>
<td>COS 291 CO-OP</td>
<td>1</td>
</tr>
<tr>
<td>COS 156 Career and Personal Development</td>
<td>3</td>
</tr>
<tr>
<td>COS 167 State Board Review</td>
<td>0</td>
</tr>
</tbody>
</table>

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.
Associate in Occupational Technology Degree

Accounting Technology ........................................... 309999 ABR/AOD
Air Conditioning/Refrigeration Technology ....... 309999 AET/AWT
Automotive Collision Repair ......................... 309999 ABR/ABI/AWT
Automotive Service Technology .................. 309999 ABR/ABI/AWT
Carpentry/Cabinetmaking .................................. 309999 CBU/CCW
Electrical Technology ..................................... 309999 EMT
Machine Shop Technology ......................... 309999 MWT
Welding ......................................................... 309999 WCR/WMS/AUT/WAC

Career Certificates

Accounting Technology ........................................... 520302 ACT
A/C/Refrigeration Technology ......................... 150501 ACR
Automotive Collision Repair .......................... 470603 ABR
Automotive Service Technology .................. 470604 ASTR
Carpentry/Cabinetmaking .................................. 460201 CAR
Electrical Technology ..................................... 460302 EMT
Industrial Systems Technology - Mechanical ...... 470303 IIMC
Machine Tool/Computer Numerical Control (CNC) .................................................. 480503 MSP
Office Administration ................................... 520401 OAD
Paramedics ..................................................... 510904 EMS
Practical Nursing (LPN) ................................. 511613 LPN
Salon and SPA Management - Esthetics Option .................................................. 120412 SSE
Cosmetology Option ...................................... 120412 SSC
Welding ......................................................... 480508 WEL

Short-Term General Certificates

Basic Automotive Service Technology .................. 470604 AUM
Advanced Automotive Service Technology ........ 470604 AAS
Basic Automotive Collision Repair .................. 470603 AUC
Biomedical Equipment Technology ................. 150401 BET
Basic Cabinetmaking ....................................... 480703 CAB
Basic Carpentry .............................................. 460201 BC
Chemical Laboratory Technician ..................... 410301 CHM
Child Development .......................................... 190708 CHD
Computer Aided Design Engineering Technology .... 151301 DDT
Computer Technology
PC Hardware Technician ................................. 110101 PCH
PC Software Technician ................................. 110101 PST
EMT ..................................................................... 510904 EMT
Advanced EMT ...................................................... 510904 EMA
Energy Management Technology .................. 150503 ECT
Environmental, Health & Safety Technician .......... 150507 EHS
Fire Science/Fire Services Management ............. 430202 FSC
Industrial Systems Technology .................... 470303 INS
Injection Molding Technology ...................... 470303 IMT
Medical Assisting Technology ....................... 470303 MMT
Phlebotomy Option ............................................ 510801 PBY
Medical Billing and Coding Option .................. 510801 MCO
Water & Wastewater Management ................. 150506 W&W
Basic Welding Technology ............................... 480508 WDT

Accounting Technology

AOT Degree

Available: Shoals Campus
Advisors: D. South (5211) dsouth@nwscc.edu
E. Carter (5277) carter@slo.com
J. Baltes (5353) jbaltes@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.

ORI 107 Student Success .............................................. 1
Area I: Written Composition .................................. 6
**ENG 101 English Composition I ...................... 3
ENG 130 Technical Report Writing ...................... 3
or ENG 102 English Composition II .................. 3
Area II: Humanities and Fine Arts ....................... 3
Area III: Natural Science and Mathematics ........... 9-10
MT H 116 or MTH 246 or MTH110 or Higher ........ 3
***CIS 146 Microcomputer Applications .............. 3
Math or Science Electives .................................... 3-4
Area IV: History, Social and Behavioral Sciences .... 3
ECO 231 Principles of Macroeconomics (preferred)

Minimum General Requirements .................... 22-23

Major Requirements Semester Hours

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 OR .......... 3
OAD 137 Computerized Financial Record Keeping ........ 3
ACT 249 Payroll Accounting ......................... 3
ACT 253 Income Tax ........................................ 3
ACT 256 Cost Accounting OR ....................... 3
BUS 248 Managerial Accounting .................. 3
ACT 262 Directed Studies ....................... 3
ACT ELECTIVES (Choose two classes):
ACT 115 Introduction to Accounting Computer Resources ........ 3
ACT 247 Advanced Acct. Applications on the Microcomputer .... 3
CIS 147 Advanced Microcomputer Applications .......... 3
OAD 135 Financial Record Keeping .................. 3
ACT 254 Business Income Tax ....................... 3
ACT 257 Governmental and Not-for-Profit Accounting .......... 3
Total Major Requirements .......................... 33

Minor Requirements

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

Minor Requirements

Office Administration 309999 AOD
OAD 101 Keyboarding ...................................... 3
OAD 125 Word Processing .................................. 3
OAD 130 Electronic Calculations ...................... 3
OAD 138 Records/Information Management .......... 3
Total Minor Requirements .............................. 12

General Requirements .............................. 22-23
Total Requirements for AOT Degree ................. 67-68

Northwest-Shoals Community College 2016-2017
Accounting Technology

520302 ACT

Career Certificate

Available: Shoals Campus
Advisors: D. South (5211) dsouth@nwsc.edu
E. Carter (5277) cartere@nwsc.edu
J. Baltes (5353) baltes@nwsc.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

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORI 107 Student Success</td>
<td>1</td>
</tr>
<tr>
<td><strong>ENG 101 English Composition I</strong></td>
<td>3</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>OAD 125 Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>OAD 133 or BUS 215 Business Communications</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total General Education Requirement</strong></td>
<td>13</td>
</tr>
</tbody>
</table>

Major Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT 104 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ACT 114 Introduction to Accounting Database Resources</td>
<td>3</td>
</tr>
<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 246 Microcomputer Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 249 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 256 Cost Accounting or BUS 248 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACT 262 Directed Studies</td>
<td>3</td>
</tr>
<tr>
<td>ACT ELECTIVE</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Major Requirements</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours** 43

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

Air Conditioning/Refrigeration Technology

AOT Degree

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

Core Degree Requirements for the Associate in Occupational Technology Degree.

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

Minimum General Requirements 19

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area I: Written Composition</strong></td>
<td>3</td>
</tr>
<tr>
<td>ENG 101, English Composition I or</td>
<td></td>
</tr>
<tr>
<td>ENG 130, Technical Writing</td>
<td></td>
</tr>
<tr>
<td><strong>Area II: Humanities and Fine Arts</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Area III: Natural Science and Mathematics</strong></td>
<td>9</td>
</tr>
</tbody>
</table>
| A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, 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.

Minimum General Requirements 19

Major Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester 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 Refrigeration Piping Practices</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 122 HVACR Electrical Circuits</td>
<td>3</td>
</tr>
<tr>
<td>ACR 123 HVACR Electrical Components</td>
<td>3</td>
</tr>
<tr>
<td>ACR 126 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 I</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>
<tr>
<td><strong>Total Major Requirements</strong></td>
<td>45</td>
</tr>
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</table>

Minor Requirements

**Electrical Technology** 309999 AET

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester 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>
<tr>
<td>Choose ONE course from:</td>
<td>3</td>
</tr>
<tr>
<td>ELT 132 Commercial/Industrial Wiring II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 209 Motor Controls I</td>
<td>3</td>
</tr>
<tr>
<td>ELT 244 Conduit Bending I</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Minor Requirements</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

**Welding** 309999 AWT

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Semester 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>
<tr>
<td><strong>Total Minor Requirements</strong></td>
<td>12</td>
</tr>
</tbody>
</table>

Total General Requirements 19

Total Major Requirements 45

Total Minor Requirements 12

Total Requirements for AOT Degree 76

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

Northwest-Shoals Community College 2016-2017
Air Conditioning/Refrigeration  150501 ACR Technology

Career Certificate

Available: Shoals Campus
Advisors: R. Corsbie (5251) rcorsbie@nwssc.edu
T. Maupin (5247) tmaupin@nwssc.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 for clock hours and credit units earned at another institution.

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>ORI 107, Student Success            1</td>
</tr>
<tr>
<td>Area I: Written Composition          3</td>
</tr>
<tr>
<td>COM 100, Introductory Technical English I</td>
</tr>
<tr>
<td>Area III: Natural Science and Mathematics 3</td>
</tr>
<tr>
<td>MTH 116, Mathematical Applications</td>
</tr>
</tbody>
</table>

Minimum General Requirements ........................................... 7

Area V: Major Requirements

<table>
<thead>
<tr>
<th>Theory</th>
<th>Lab</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 111 Refrigeration Principles   1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ACR 112 HVACR Service Procedures   1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ACR 113 Refrigeration Piping Practices</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACR 119 Fundamentals of Gas Heating Systems</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACR 121 Principles of Electricity for HVACR</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACR 122 HVACR Electrical Circuits   1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ACR 123 HVACR Electrical Components</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACR 126 Commercial Heating Systems</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACR 132 Residential Air Conditioning</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>ACR 147 Refrigeration Transition and Recovery</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>ACR 148 Heat Pump System I         1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ACR 181 Parallel Refrigeration      3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ACR 203 Commercial Refrigeration    1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ACR 205 System Sizing and Air Distribution</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>ACR 209 Commercial Air Conditioning</td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>

Total General Requirements ........................................ 7
Total Major Requirements ............................................ 45
Total Requirements ................................................ 52

**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@nwssc.edu
T. Maupin (5247) tmaupin@nwssc.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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 111 Principles of Refrigeration   3</td>
</tr>
<tr>
<td>ACR 121 Principles of Electricity for HVACR</td>
</tr>
<tr>
<td>ACR 148 Heat Pump Systems I          3</td>
</tr>
<tr>
<td>ACR 119 Fundamentals of Gas Heating Systems</td>
</tr>
</tbody>
</table>

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@nwssc.edu
T. Maupin (5247) tmaupin@nwssc.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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 113 Refrigeration Piping Practices</td>
</tr>
<tr>
<td>ACR 123 HVACR Electrical Components   3</td>
</tr>
<tr>
<td>ACR 126 Commercial Heating Systems    3</td>
</tr>
<tr>
<td>ACR 181 Special Topics in Air Conditioning and Refrigeration I</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours 12
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

**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 techni-
cians 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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 112HVACR Service Procedures</td>
<td>3</td>
</tr>
<tr>
<td>ACR 209 Commercial Air Conditioning Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 205 Systems Sizing and Air Distribution</td>
<td>3</td>
</tr>
<tr>
<td>ACR 122 HVACR Electrical Circuits</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**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 techni-
cians 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.

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACR 210 Troubleshooting HVACR Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACR 203 Commercial Refrigeration</td>
<td>3</td>
</tr>
<tr>
<td>ACR 135 Mechanical/Gas/Safety Codes</td>
<td>3</td>
</tr>
<tr>
<td>ACR 147 Refrigeration Transition and Recovery Theory</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**Automotive Collision Repair**

**AOT Degree**

Available: Shoals Campus
Advisors: E. Reid (5231) ereid@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.

**Core Degree Requirements for the 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>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: Written Composition</td>
<td>3</td>
</tr>
<tr>
<td>English Composition I or Technical Writing</td>
<td></td>
</tr>
<tr>
<td>Area II: Humanities and Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Area III: Natural Science and Mathematics</td>
<td>9</td>
</tr>
<tr>
<td>A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, biology, chemistry, physical science, physics, environmental technology and computer science.</td>
<td></td>
</tr>
<tr>
<td>Area IV: History, Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum General Requirements**

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Semester Hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR 111 Non-Structural Repair</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 114 Non-Structural Panel Replacement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 122 Surface Preparation</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 123 Paint Application &amp; Equipment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 151 Safety &amp; Environmental Practices</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 154 Auto Glass and Trim</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 156 Auto Cutting and Welding</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 157 Plastic Repairs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 213 Automotive Structural Analysis</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 214 Automotive Structural Repair</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 223 Automotive Mechanical Components</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR 224 Automotive Electrical Components</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ABR Electives</td>
<td>6</td>
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</tr>
<tr>
<td><strong>Total Major Requirements</strong></td>
<td><strong>42</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Minor Requirements**

**Business Management and Supervision**

BUS 275 Principles of Management | 3 |
BUS Business Electives | 9 |

| Total Minor Requirements | 12 |

Northwest-Shoals Community College 2016-2017
Minor Requirements

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

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

Minor Requirements Auto Mechanics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 101</td>
<td>Fundamentals of Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUM 112</td>
<td>Electrical Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>AUM 121</td>
<td>Braking Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUM Elective</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

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

General Requirements ........................................ 12

Total Requirements for AOT Degree ........................ 73

*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: E. Reid (5231) ereid@nwscc.edu
          T. Maupin (5247) tmaupin@nwscc.edu

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 automotive 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 Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 100</td>
<td>Introductory Technical English I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 116</td>
<td>Mathematical Applications</td>
<td>2</td>
</tr>
<tr>
<td>ABR 111</td>
<td>Non-Structural Repair</td>
<td>1</td>
</tr>
<tr>
<td>ABR 114</td>
<td>Non-Structural Panel Replacement</td>
<td>1</td>
</tr>
<tr>
<td>ABR 122</td>
<td>Surface Preparation</td>
<td>1</td>
</tr>
<tr>
<td>ABR 123</td>
<td>Paint Application and Equipment</td>
<td>1</td>
</tr>
<tr>
<td>ABR 151</td>
<td>Safety and Environmental Practices</td>
<td>3</td>
</tr>
<tr>
<td>ABR 154</td>
<td>Automotive Glass and Trim</td>
<td>1</td>
</tr>
<tr>
<td>ABR 156</td>
<td>Cutting and Welding</td>
<td>1</td>
</tr>
<tr>
<td>ABR 157</td>
<td>Automotive Plastic Repairs</td>
<td>1</td>
</tr>
<tr>
<td>ABR 213</td>
<td>Auto Structural Analysis</td>
<td>1</td>
</tr>
<tr>
<td>ABR 214</td>
<td>Automotive Structural Repair</td>
<td>1</td>
</tr>
<tr>
<td>ABR 223</td>
<td>Automotive Mechanical Components</td>
<td>1</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.

Basic Automotive Collision Repair Short-Term Certificate

Available: Shoals Campus
Advisors: E. Reid (5231) ereid@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 Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABR 224</td>
<td>Automotive Electrical Components</td>
<td>1</td>
</tr>
<tr>
<td>ABR 255</td>
<td>Steering &amp; Suspension</td>
<td>1</td>
</tr>
<tr>
<td>ABR 258</td>
<td>Heating and AC in Collision Repair</td>
<td>1</td>
</tr>
<tr>
<td>ABR 261</td>
<td>Restraint Systems</td>
<td>1</td>
</tr>
<tr>
<td>ABR 265</td>
<td>Paint Defects/Final Repairs</td>
<td>1</td>
</tr>
<tr>
<td>ABR 266</td>
<td>MIG Welding in Collision Repair (Aluminum)</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours ................................ 24

Northwest-Shoals Community College 2016-2017
Automotive Service Technology
AOT Degree

Available: Shoals Campus
Advisors: R. Garner (5289) wgarn@nwsc.edu
T. Maupin (5247) tmaupin@nwsc.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.

Core Degree Requirements for the Associate in Occupational Technology Degree

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

Semester Hours

<table>
<thead>
<tr>
<th>Area I: Written Composition</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I or Technical Writing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II: Humanities and Fine Arts</th>
<th>3</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Area III: Natural Science and Mathematics</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, biology, chemistry, physical science, physics, environmental technology and computer science.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area IV: History, Social and Behavioral Sciences</th>
<th>3</th>
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<tbody>
<tr>
<td>Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.</td>
<td></td>
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</table>

Minimum General Requirements .............................................19

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 101 Fundamentals of Automotive Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUM 112 Electrical Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>AUM 121 Braking Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUM 122 Steering, Suspension and Alignment</td>
<td>3</td>
</tr>
<tr>
<td>AUM 124 Automotive Engines</td>
<td>3</td>
</tr>
<tr>
<td>AUM 130 Drive Train and Axles</td>
<td>3</td>
</tr>
<tr>
<td>AUM 133 Motor Vehicle Air Conditioning</td>
<td>3</td>
</tr>
<tr>
<td>AUM 152 Electrical and Electronic Systems</td>
<td>3</td>
</tr>
<tr>
<td>AUM 224 Manual Transmission and Transaxle</td>
<td>3</td>
</tr>
<tr>
<td>AUM 230 Auto Transmission and Transaxle</td>
<td>3</td>
</tr>
<tr>
<td>AUM 239 Engine Performance</td>
<td>3</td>
</tr>
<tr>
<td>AUM 244 Engine Performance and Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>AUM 246 Automotive Emissions</td>
<td>3</td>
</tr>
<tr>
<td>AUM Electives</td>
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</tbody>
</table>

Total Major Requirements .............................................45

<table>
<thead>
<tr>
<th>Minor Requirements</th>
<th>309999 AUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Collision Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABR 111 Non-Structural Repair</td>
<td>3</td>
</tr>
<tr>
<td>ABR 114 Non-Structural Panel Replacement</td>
<td>3</td>
</tr>
<tr>
<td>ABR 122 Surface Preparation</td>
<td>3</td>
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<tr>
<td>ABR Elective</td>
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</tbody>
</table>

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

General Requirements .....................................................19

Total Requirements for AOT Degree ....................................76

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

Automotive Service Technology 470604 AST

Career Certificate

Available: Shoals Campus
Advisors: R. Garner (5289) wgarn@nwsc.edu
T. Maupin (5247) tmaupin@nwsc.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>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 100 Introductory Technical English I</td>
<td>3</td>
<td>0</td>
<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>
<td>3</td>
</tr>
<tr>
<td>AUM 152 Electrical and Electronic Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUM 162 Electrical and Electronic Systems</td>
<td>1</td>
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</tr>
<tr>
<td>AUM 182 Special Topics</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>AUM 212 Advanced Electrical and Electronic Systems</td>
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<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>
</tbody>
</table>

Northwest-Shoals Community College 2016-2017
Basic Automotive Service Technology Short-Term Certificate

Available: Shoals Campus
Advisors: R. Garner (5289) wgamer@nwscc.edu  T. Maupin (5247) tmaupin@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>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Sem</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 101</td>
<td>Fundamentals of Automotive Technology</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 112</td>
<td>Electrical Fundamentals</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 121</td>
<td>Braking Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 122</td>
<td>Steering, Suspension and Alignment</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 124</td>
<td>Automotive Engines</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 130</td>
<td>Drive Train and Axles</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUM 133</td>
<td>Motor Vehicle Air Conditioning</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Semester Credit Hours ........................................ 24

Advanced Automotive Service Technology Short-Term Certificate

Available: Shoals Campus
Advisors: R. Garner (5289) wgamer@nwscc.edu  T. Maupin (5247) tmaupin@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>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUM 162</td>
<td>Electrical and Electronic Systems</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Semester Credit Hours ........................................ 55

*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.

Northwest-Shoals Community College 2016-2017
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 education courses for transfer to another institution should consult an advisor for proper general education course selection.

Core Degree Requirements for the Associate in Occupational Technology Degree

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

Semester Hours

Area I: Written Composition .................. 3
   English Composition I and/or Technical Writing
Area II: Humanities and Fine Arts ........... 3
Area III: Natural Science and Mathematics ... 9
   A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, 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.

Minimum General Requirements .................. 19

Major Requirements .................. Semester Hours
   CAB 101 Introduction to Cabinetmaking .......... 3
   CAB 104 Cabinet Shop Operation ................. 3
   CAB 141 Wood Finishing ......................... 3
   CAB 204 Cabinetmaking/Millwork ............. 5
   CAB 230 Estimating Costs in Cabinetmaking .... 2
   CAR 112 Floors, Walls, Site Prep .............. 3
   CAR 113 Floors, Walls, Site Prep Lab .......... 3
   CAR 121 Introduction to Blueprint ............ 3
   CAR 131 Roof and Ceiling Systems .......... 3
   CAR 133 Roof and Ceiling Systems Lab ...... 3
   CAR 232 Construction Project Management ... 3
   CAR 228 Stairs, Molding and Frame .......... 3
   CAR/CAB Electives .................. 6
Total Major Requirements .................. 45

Minor Requirements

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

Minor Requirements

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

General Requirements .................. 19
Total Requirements for AOT Degree .............. 76

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

Carpentry/Cabinetmaking

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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 100 Introductory Technical English I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CAB 101 Introduction to Cabinetmaking</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 102 Introduction to Lumber</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CAB 103 Sizes and Dimensions</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 104 Cabinet Shop Operations</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAB 110 Basic Safety and Equipment</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 141 Woodfinishing</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>CAB 204 Cabinetmaking/Millwork</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 230 Estimating Costs in Cabinetmaking or CAR 132 Interior and Exterior Finish</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 111 Construction Basics or CAR 232 Construction Project Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 112 Floors, Walls, Site Prep</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 113 Floors, Walls, Site Prep Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>CAR 121 Introduction to Blueprint</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 131 Roof and Ceiling Systems</td>
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<td>CAR 133 Roof and Ceiling Systems Lab</td>
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<tr>
<td>CAR 226 Metal Framing</td>
<td>0</td>
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</table>

Total Semester Credit Hours .................. 52
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.

### Basic Carpentry

**Short-Term Certificate**

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

<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>CAR 111</td>
<td>Construction Basic</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 112</td>
<td>Floors, Walls, Site Prep</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 113</td>
<td>Floors, Walls, Site Prep Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>CAR 121</td>
<td>Introduction to Blueprint Reading</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAR 131</td>
<td>Roof and Ceiling Systems</td>
<td>3</td>
<td>0</td>
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<tr>
<td>CAR 133</td>
<td>Roof and Ceiling Systems Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>CAR 228</td>
<td>Stairs, Molding and Trim</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAR 232</td>
<td>Construction Project Management</td>
<td>3</td>
<td>0</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.

### Basic Cabinetmaking

**Short-Term Certificate**

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

<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>CAB 101</td>
<td>Introduction to Cabinetmaking</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 102</td>
<td>Introduction to Lumber</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CAB 103</td>
<td>Sizes and Dimensions</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 104</td>
<td>Cabinet Shop Operations</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CAB 110</td>
<td>Basic Safety Tools and Equipment</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CAB 141</td>
<td>Woodfinishing</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>CAB 204</td>
<td>Cabinetmaking/Millwork</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Semester Credit Hours** ................................................. 21

### Electrical Technology

**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.

### Core Degree Requirements for the Associate in Occupational Technology Degree

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

<table>
<thead>
<tr>
<th>Area</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Written Composition</td>
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</tr>
<tr>
<td></td>
<td>ENG 101, English Composition I and/or ENG 130, Technical Writing</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>9</td>
</tr>
</tbody>
</table>

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

Northwest-Shoals Community College  2016-2017
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

Modern control methods, hydraulic, pneumatic, and electro-motors, transformers and industrial controls, wiring methods, machine installation, maintenance and troubleshooting of electrical equipment. The program is designed to fulfill the needs of a demanding industry for trained industrial electricians. The Electrical Technology program has increased the need for the trained 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 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.

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 108 DC Fundamentals</td>
<td>6</td>
</tr>
<tr>
<td>ELT 109 AC Fundamentals</td>
<td>6</td>
</tr>
<tr>
<td>ELT 110 Wiring Methods</td>
<td>6</td>
</tr>
<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 117 AC/DC Machines</td>
<td>6</td>
</tr>
<tr>
<td>ELT 131 Commercial/Industrial Wiring I</td>
<td>3</td>
</tr>
<tr>
<td>ELT 132 Commercial/Industrial Wiring II</td>
<td>3</td>
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<tr>
<td>ELT 209 Motor Control I</td>
<td>6</td>
</tr>
<tr>
<td>ELT 212 Motor Control II</td>
<td>3</td>
</tr>
<tr>
<td>ELT 231 Programmable Controls I</td>
<td>3</td>
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<tr>
<td>ELT 232 Programmable Controls II</td>
<td>3</td>
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<tr>
<td>ELT 241 National Electrical Code</td>
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<tr>
<td>ELT 242 Journeyman Master Prep Exam</td>
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<tr>
<td>ELT 244 Conduit Bending and Installation</td>
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Total Major Requirements: 45

<table>
<thead>
<tr>
<th>Minor Requirements</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>ACR 111 Refrigeration Principles</td>
<td>6</td>
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<tr>
<td>ACR 112 HVACR Service Procedures</td>
<td>4</td>
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<tr>
<td>ACR 113 Refrigeration Piping Practices</td>
<td>6</td>
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<tr>
<td>ACR 126 Commercial Heating Systems</td>
<td>6</td>
</tr>
<tr>
<td>ACR 132 Residential Air Conditioning</td>
<td>4</td>
</tr>
<tr>
<td>ACR 209 Commercial Air Conditioning Systems</td>
<td>1</td>
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</table>

Total Minor Requirements: 12

<table>
<thead>
<tr>
<th>General Requirements</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area I: History, Social and Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Area II: Natural Science and Mathematics</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum General Requirements: 7

| Total Major Requirements                    | 45             |
| Total Minor Requirements                    | 12             |

Total Requirements for AOT Degree: 76

### Electrical Technology 460302 ELT

**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 program 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.

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.

Northwest-Shoals Community College 2016-2017

Position 100 1604388 Creasey-tx-Northwest 16-05-02 15:37:52
Machine Shop Technology  

**AOT Degree**

Available: Phil Campbell and Shoals Campuses
Advisors: T. Maupin (5247) tmaupin@nwscc.edu
M. Johnson (8047) mpjohnson@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.

**Core Degree Requirements for the Associate in Occupational Technology Degree**

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>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I/or Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area II: Humanities and Fine Arts</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>History, Social and Behavioral Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

Minimum General Requirements ........................................19

**Major Requirements**

- 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 ..................................................................2
- MSP 221 Advanced Blueprint Reading ...........................................2
- MSP Electives .............................................................................7

Total Major Requirements .....................................................45

**Minor Requirements**

- 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

**General Requirements** ......................................................12

**Total Requirements for AOT Degree** ......................................76

---

**Minor Requirements**

**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 Requirements** ......................................................19

**Total Requirements for AOT Degree** ......................................76

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

---

**Machine Shop/Computer Numerical Control (CNC)**

**Career Certificate**

Available: Phil Campbell and Shoals Campuses
Advisors: T. Maupin (5247) tmaupin@nwscc.edu
M. Johnson (8047) mpjohnson@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>Semester</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>MTH 116 Mathematical Applications or MTH 100 Intermediate College</td>
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<tr>
<td>MSP 101 Basic Machining Technology</td>
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<td>5</td>
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<tr>
<td>MSP 102 Intermediate Machining Tech.</td>
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<td>12</td>
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<td>MSP 103 Adv. Machining Technology</td>
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<td>5</td>
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<tr>
<td>MSP 104 Basic Machining Calculations</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MSP 105 Lathes</td>
<td>1</td>
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<td>3</td>
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<tr>
<td>MSP 107 Milling Machines</td>
<td>1</td>
<td>6</td>
<td>3</td>
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<tr>
<td>MSP 111 Introduction to Computer Numerical Control</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MSP 112 Basic CNC Turning</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>MSP 113 Basic CNC Milling</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>MSP 115 Advanced Milling Machines</td>
<td>2</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>MSP 121 Basic Blueprint Reading for Machinists</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MSP 127 CAM</td>
<td>2</td>
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Northwest-Shoals Community College 2016-2017
CAREER, TECHNICAL AND OCCUPATIONAL PROGRAMS

Semester Hours

WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab .......... 3
WDT 155 GTAW Carbon Pipe Lab ................................ 3
WDT 217 SMAW Carbon Pipe ...................................... 3
WDT 228 Gas Pipe Arc Welding Theory ....................... 3
WDT 257 SMAW Carbon Pipe Lab .......................... 3
WDT 268 Gas Tungsten Arc Lab .......................... 3
Total Major Requirements .................................... 45

Minor Requirements

Welding

AOT Degree

Available:  Phil Campbell and Shoals Campuses
Advisors:   L. Liles (5254/6072) lilies@nwscc.edu
           B. Keeton (6389) bkeeton@nwscc.edu
           R. Garner (5289) wgarner@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.

Core Degree Requirements for the Associate in Occupational Technology Degree

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

Semester Hours

Area I:  Written Composition ....................................... 3
        English Composition I and/or Technical Writing
        Humanities and Fine Arts ................................... 3
Area III: Natural Science and Mathematics ................. 9
        A minimum of 3 hours in MTH 116 or MTH 100 or Higher is required. The additional 6 hours of degree creditable coursework may be taken from disciplines of math, biology, chemistry, physical science, physics, environmental technology and computer science.
        History, Social and Behavioral Sciences ............... 3
        Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.

Minimum General Requirements ................................. 19

Major Requirements ............................................. Semester Hours
WDT 108 SMAW Fillet/OFC .................................... 3
WDT 109 SMAW Fillet/CAC .................................... 3
WDT 110 Industrial Blueprint Reading .......................... 3
WDT 115 GTAW 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

Northwest-Shoals Community College 2016-2017
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>Course Code</th>
<th>Course Title</th>
<th>Theory</th>
<th>Lab</th>
<th>Hours</th>
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<tr>
<td>COM 100</td>
<td>Introductory Technical English I</td>
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<td>0</td>
<td>3</td>
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<tr>
<td>MTH 116</td>
<td>Mathematical Applications</td>
<td>2</td>
<td>2</td>
<td>3</td>
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<tr>
<td>WDT 108</td>
<td>SMAW Fillet/OFC</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 109</td>
<td>SMAW Fillet/PAC/CAC</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 110</td>
<td>Industrial Blueprint Reading</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WDT 115</td>
<td>GTAW Carbon Pipe Theory</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>WDT 119</td>
<td>Gas Metal Arc/Flux Cored Arc Welding Theory</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 120</td>
<td>Shielded Metal Arc Welding Groove Theory</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 122</td>
<td>SMAW Fillet/OFC Lab</td>
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<td>9</td>
<td>3</td>
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<tr>
<td>WDT 123</td>
<td>SMAW Fillet/PAC/CAC Lab</td>
<td>0</td>
<td>9</td>
<td>3</td>
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<tr>
<td>WDT 124</td>
<td>Gas Metal Arc/Flux Cored Arc Welding Lab</td>
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<td>WDT 125</td>
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<td>9</td>
<td>3</td>
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<td>WDT 155</td>
<td>GTAW Carbon Pipe Lab</td>
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<td>9</td>
<td>3</td>
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<td>WDT 217</td>
<td>SMAW Carbon Pipe Theory</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>WDT 219</td>
<td>Welding Inspection and Testing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WDT 228</td>
<td>Gas Tungsten Arc Welding Theory</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 257</td>
<td>SMAW Carbon Pipe Lab</td>
<td>0</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>WDT 268</td>
<td>Gas Tungsten Arc Lab</td>
<td>0</td>
<td>9</td>
<td>3</td>
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</tbody>
</table>

**Total Semester Credit Hours** ........................................ 55

**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.**

Basic Welding Technology  
**Short-Term Certificate**

480508 WDT  

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 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.  

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

<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>WDT 108</td>
<td>SMAW Fillet/OFC</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 109</td>
<td>SMAW Fillet/PAC/CAC</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 110</td>
<td>Industrial Blueprint Reading</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>WDT 119</td>
<td>Gas Metal Arc/Flux Cored Arc Welding Theory</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>WDT 122</td>
<td>SMAW Fillet/OFC Lab</td>
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<td>9</td>
<td>3</td>
</tr>
<tr>
<td>WDT 123</td>
<td>SMAW Fillet/PAC/CAC Lab</td>
<td>0</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>WDT 124</td>
<td>Gas Metal Arc/Flux Cored Arc Welding Lab</td>
<td>0</td>
<td>9</td>
<td>3</td>
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<tr>
<td>WDT 219</td>
<td>Welding Inspection and Testing</td>
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</table>

**Total Semester Credit Hours** ........................................ 24

Northwest-Shoals Community College 2016-2017
**Welding** 480508 WBS

**Basic SMAW (Stick) Short-Term Certificate**

Available: Phil Campbell and Shoals Campuses
Advisors:  L. Liles (5254/8072) lilies@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.

**Semester Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</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>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></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) lilies@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.

**Semester Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>WDT 110 Industrial Blueprint Reading</td>
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<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 &amp; Testing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></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) lilies@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.

**Semester Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDT 115 GTAW Carbon Pipe Theory</td>
<td>3</td>
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<td>WDT 155 GTAW Carbon Pipe Lab</td>
<td>3</td>
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<tr>
<td>WDT 228 Gas Tungsten Arc Welding Theory</td>
<td>3</td>
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<td>WDT 268 Gas Tungsten Arc Lab</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></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) lilies@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.

**Semester Hours**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tr>
<td>WDT 120 Shielded Metal Arc Welding Groove Theory</td>
<td>3</td>
</tr>
<tr>
<td>WDT 125 Shielded Metal Arc Welding Groove Lab</td>
<td>3</td>
</tr>
<tr>
<td>WDT 217 SMAW Carbon Pipe Theory</td>
<td>3</td>
</tr>
<tr>
<td>WDT 257 SMAW Carbon Pipe Lab</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Semester Credit Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>
Notes.
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:

**ALLIED HEALTH LINKAGE PROGRAMS**

Northwest-Shoals Community College

Clinical Laboratory Technician.................. 5 semesters
Dental Assisting.................................. 4 semesters
Dental Hygiene..................................... 5 semesters
Diagnostic Imaging (Radiology).................. 5 semesters
Diagnostic Medical Sonography.................... 6 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.*

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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) kim.sheppard@nwsc.edu
B. Smith (5379) bsmith@nwsc.edu
S. Watson (6253) sberrian@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.**

Semester Hours

**BIO 103 Principles of Biology I................................. 4**
**CHM 104 Introduction to Inorganic Chemistry.............. 4**
**ENG 101 English Composition I................................. 3**
**ENG 102 English Composition II ......................... 3**
**SPH 107 Fundamentals of Public Speaking.................... 3**
**MTH 116 Mathematical Applications........................... 3**
**Humanities/Fine Arts Elective................................. 3**
**PSY 200 General Psychology................................. 3**

**Total Semester Hours........................................... 24**

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**

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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.
Dental Assisting

Career Degree - Wallace Linkage

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) ksmith@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6253) sberrian@nwscc.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.

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 146 Microcomputer Applications</td>
<td>3</td>
</tr>
<tr>
<td>*ENG 101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>*MTH 116 Mathematical Applications</td>
<td>3</td>
</tr>
<tr>
<td>*PSY 200 General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>*SPH 107 Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>Humanities/Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>BIO 103 Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>Total Semester Hours</td>
<td>23</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

Dental Hygiene

Career Degree - Wallace Linkage

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) ksmith@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6253) sberrian@nwscc.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 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.

Semester Hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>*BIO 201-202 Human Anatomy and Physiology I</td>
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</tr>
<tr>
<td>*BIO 220 General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>CHM 104 Introduction to Inorganic Chemistry</td>
<td>4</td>
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<tr>
<td>ENG 101 English Composition I</td>
<td>3</td>
</tr>
<tr>
<td>MTH 116 Mathematical Application</td>
<td>3</td>
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<td>PSY 200 General Psychology</td>
<td>3</td>
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<tr>
<td>SPH 107 Fundamentals of Public Speaking</td>
<td>3</td>
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<tr>
<td>SOC 200 Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>Humanities or Fine Arts Elective</td>
<td>3</td>
</tr>
<tr>
<td>Total Semester Hours</td>
<td>35</td>
</tr>
</tbody>
</table>

*Bio 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: Barbara Ebert 256.352.8380

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.
ALLIED HEALTH LINKAGE PROGRAMS

**Diagnostic Imaging** 510899 GEL
**Career Degree - Wallace Linkage**

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) ksheppard@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6263) sberrian@nwscc.edu

This program is designed to provide technologists for diagnostic imaging departments of hospitals and clinics. Students are taught the fundamental principles underlying all phases of Radiologic Technology. Upon graduation, the student is eligible to take the registry examination of the American Registry of Radiologic Technology. According to the American Registry of Radiologic Technologist, application for certification to practice as a R.T. may be denied if a person has been convicted of a felony, is guilty of a crime involving moral turpitude, and/or has displayed other grounds for denial by law. Students must satisfy general qualifications for certification in accordance with The American Registry of Radiologic Technologists (ARRT) guidelines. See program webpage for accreditation information.

Participation in the performance of radiographic procedures in a clinical setting will begin during the first year of the program. Students enrolled in clinical education will be assigned hours consistent to day shift for the majority of their training; however, assignments will also include 3:00 p.m.-11:00 p.m. shifts. Assignment to clinical facilities will be at the discretion of the program officials, and students are required to travel to different locations during the clinical phase.

The Radiologic Technology Program admits students annually in the fall semester, although general education courses may be taken prior to admission into the program. Program spaces are limited; therefore, students are encouraged to apply early. Wallace State College will award the Associate in Applied Science Degree upon completion of program requirements. Graduation requirements must be met within three years following entry into the program. A student who withdraws or is dismissed from the program must reapply for admission for the following year's class.

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

Semester Hours

**EN 101-102 English Composition I and II**..................6
**BIO 201-202 Human Anatomy and Physiology I and II**.....8
MTH 100 Intermediate Algebra...................................3
PSY 200 General Psychology......................................3
Humanities/Fine Arts Elective.................................3

Total Semester Hours...........................................24

*Biology 103 highly recommended
** SPH 107 may substitute ENG 102

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.

WSSC Program Director: Jim Malone 256.352.8309

**Diagnostic Medical Sonography** 510899 GEL
**Career Degree - Wallace Linkage**

Available: Phil Campbell and Shoals Campuses
Advisors: A. Lyndon (5319/6235) lyndon@nwscc.edu
K. Sheppard (5331) ksheppard@nwscc.edu
B. Smith (5379) bsmith@nwscc.edu
S. Watson (6263) sberrian@nwscc.edu

This program of study is designed to provide didactic and clinical training in the field of general diagnostic medical sonography (ultrasound). The student will receive training in acoustic principles, instrumentation and safety, abdominal, obstetrical, gynecologic, and superficial sonography.

Sonography is a technologist-dependent imaging field that places great emphasis on “hands-on” training. Clinical education in the DMS Program begins early in the professional phase of training with hours increasing as the program progresses. Graduates of the Program will be eligible to apply for the National Registry Examination by the American Registry of Diagnostic Medical Sonographers and American Registry of Radiologic Technologists for Sonography when registry guidelines have been met. See program webpage for accreditation information.

The Associate in Applied Science Degree Program has a six semester competency-based curriculum that includes practical experience in regional health institutions. Math/Science courses must have been completed within seven years of the date of expected entry into the DMS program. (See sonography advisor for information).

The professional phase of the Sonography Program is four semesters in length and is designed to begin fall semester of each year.

Acceptance to Wallace State College does not guarantee admission to the Sonography 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.

Semester Hours

* **BIO 201 Human Anatomy and Physiology I**.................4
** EN 101 English Composition I..................................3
** Humanities/Fine Art Elective.................................3
** MTH 100 Intermediate College Algebra........................3
** SPH 107 Fundamentals of Public Speaking.....................3
** **PHY 115 Technical Physics....................................4
** PSY 200 General Psychology................................3

Total Semester Hours...........................................24

*Biology 103 highly recommended
** MTH 112 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.

Vascular Technology and Echocardiography courses are available for students interested in acquiring specialized skills.

WSCC Program Director: April Sutherland 256.352.8318

Northwest-Shoals Community College 2016-2017

Position 108 1604388 Creasey-tx-Northwest 16-05-02 15:37:52
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) lyndoni@nwsc.edu
          K. Sheppard (5331) ksheppard@nwsc.edu
          B. Smith (5379) bsmith@nwsc.edu
          S. Watson (6253) sberrian@nwsc.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-accredited programs or trained on the job are not eligible to take the examination.

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/fab 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>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>*BIO 201-202 Human Anatomy and Physiology I and II</td>
</tr>
<tr>
<td>CIS 146 Microcomputer Applications</td>
</tr>
<tr>
<td>ENG 101 English Composition I and 102 English Composition II or SPH 107 Fundamentals of Public Speaking</td>
</tr>
<tr>
<td>MTH 116 Mathematical Applications</td>
</tr>
<tr>
<td>OAD 211 Medical Terminology</td>
</tr>
<tr>
<td>Behavior Science Elective or History or Social Science elective</td>
</tr>
<tr>
<td>Humanities/Fine Art Elective</td>
</tr>
<tr>
<td><strong>Total Semester Hours</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**  
**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) sberrian@nwsc.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.**

**Semester Hours**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>BIO 103</td>
<td>Principles of Biology I</td>
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<tr>
<td>CIS 146</td>
<td>Microcomputer Applications</td>
<td>3</td>
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<tr>
<td>ENG 101</td>
<td>English Composition I</td>
<td>3</td>
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<tr>
<td>ENG 102</td>
<td>English Composition II</td>
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</tr>
<tr>
<td>MTH 116</td>
<td>Mathematical Applications or MTH 100</td>
<td>6</td>
</tr>
<tr>
<td>MTH 117</td>
<td>Intermediate Algebra</td>
<td>3</td>
</tr>
<tr>
<td>PSY 200</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 210</td>
<td>Human Growth and Development</td>
<td>3</td>
</tr>
<tr>
<td>HUM 101</td>
<td>Humanities/Fine Art Elective</td>
<td>3</td>
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<tr>
<td>Total</td>
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<td>26</td>
</tr>
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</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

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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.
**Occupational Therapy Assistant**  
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) sberrinan@nwsc.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. (NBCOT). After successful completion of the NBCOT 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 NBCOT 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 NBCOT 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.

**Semester Hours**

*BIO 201 Human Anatomy and Physiology I* .................. 4  
ENG 101 English Composition I .................................. 3  
Humanities/Fine Art Elective .................................. 3  
MTH 116 Mathematical Applications ............................... 3  
OAD 211 Medical Terminology .................................. 3  
CIS 146 Microcomputer Applications ............................... 3  
PSY 200 General Psychology .................................. 3  
SPH 107 Fundamentals of Public Speaking ...................... 3  
**Total Semester Hours** ..................................... 26

*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: Allen Keener 256.352.8333

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**Physical Therapist Assistant**  
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) sberrinan@nwsc.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 this 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.

**Semester Hours**

*BIO 201-202 Human Anatomy and Physiology I and II* .......... 8  
ENG 101 English Composition I .................................. 3  
**Humanities/Fine Art Elective** .................................. 3  
MTH 100 Intermediate College Algebra .............................. 3  
OAD 211 Medical Terminology .................................. 3  
PSY 200 General Psychology .................................. 3  
SPS 210 Human Growth and Development .......................... 3  
SPH 107 Fundamentals of Public Speaking ...................... 3  
**Total Semester Hours** ..................................... 30

*Biology 103 highly recommended*

**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 .......................... No
Observation Hours .............................. No
Program App Required .......................... Yes
Application Due Date ......................... April 15 & June 1
Program Length ....................................... 5
Semester Admittance ......................... Summer & Fall

**Program DNT (AAS)(CERT)**
GPA .............................................. 2.3+
Testing Requirements ......................... ACT - 16
Prerequisite Courses .......................... Recommended
Observation Hours .............................. No
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ............................... (AAS) - 4 (CERT) - 3
Semester Admittance ......................... Fall

**Program DHY**
GPA .............................................. 2.5+
Testing Requirements ......................... ACT - 18
Prerequisite Courses .......................... Recommended
Observation Hours .............................. No
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 5
Semester Admittance ......................... Fall

**Program DI (RAD)**
GPA .............................................. 2.5+
Testing Requirements ......................... ACT - 18
Prerequisite Courses .......................... Recommended
Observation Hours .............................. No
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 5
Semester Admittance ......................... Fall

**Program DMS**
GPA .............................................. 2.5
Testing Requirements ......................... ACT - 19
Prerequisite Courses .......................... Yes
Observation Hours .............................. 4 Hours
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 6
Semester Admittance ......................... Fall

**Program HIT (AAS)**
GPA .............................................. 2.5
Testing Requirements ......................... ACT - 17, COMPASS
........................................ RDG 180 (3 yrs) or ACT RDG 18 (3 yrs)
Prerequisite Courses .......................... Yes
Observation Hours .............................. No
Program App Required .......................... No
Application Due Date ......................... June 1
Program Length ....................................... 5-6
Semester Admittance ......................... Fall
Online/Onsite ........................................ Online

**Program HSM (AAS)**
GPA .............................................. 2.5
Testing Requirements ......................... None
Prerequisite Courses .......................... No
Observation Hours .............................. 12 Hours
Program App Required .......................... Yes
Application Due Date ......................... June 1 - Fall
Program Length ....................................... 5
Semester Admittance ......................... Summer & Fall

**Program OTA**
GPA .............................................. 2.5
Testing Requirements ......................... ACT - 18
Prerequisite Courses .......................... Yes
Observation Hours .............................. 24 Hours/2 Sites
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 5
Semester Admittance ......................... Fall

**Program PTA**
GPA .............................................. 2.5
Testing Requirements ......................... ACT - 18
Prerequisite Courses .......................... Yes
Observation Hours .............................. 24 Hours/2 Sites
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 5
Semester Admittance ......................... Fall

**Program RPT**
GPA .............................................. 2.0+
Testing Requirements ......................... ACT - 18
Prerequisite Courses .......................... BIO 103 & BIO 201 &
........................................ MTH 100, ENG 101
Observation Hours .............................. No
Program App Required .......................... Yes
Application Due Date ......................... June 1
Program Length ....................................... 5
Semester Admittance ......................... Fall
Online/Onsite ........................................ Onsite & Hybrid

* 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.

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