

**Basic Automotive Collision Repair Short-Term Certificate** 470603 AUC

Available: Shoals Campus  
 Advisors: E. Reid (5231) [ereid@nwsc.edu](mailto:ereid@nwsc.edu)  
 J. Hackworth (5335) [joehackworth@nwsc.edu](mailto:joehackworth@nwsc.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.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
ABR 111 Non-Structural Repair	1	4	3
ABR 122 Surface Preparation	1	4	3
ABR 123 Paint Application & Equip.	1	4	3
ABR 151 Safety & Environmental Practices	1	4	3
ABR 154 Auto Glass Trim	1	4	3
ABR 156 Automotive Cutting and Welding	1	4	3
ABR 213 Automotive Structural Analysis	1	4	3
ABR 214 Automotive Structural Repair	1	2	3

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

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

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

**Automotive Collision Repair: Associate in Occupational Technology Degree - page 84 Career Certificate - page 91**

**Basic Automotive Service Technology Short-Term Certificate** 470604 AUM

Available: Shoals Campus  
 Advisors: A. Austin (5449) [aaustin@nwsc.edu](mailto:aaustin@nwsc.edu)  
 J. Hackworth (5335) [joehackworth@nwsc.edu](mailto:joehackworth@nwsc.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.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
AUM 101 Fundamentals of Automotive Technology	1	4	3
AUM 110 Electrical and Electronic Systems I	1	4	3
AUM 121 Braking Systems	1	4	3
AUM 122 Steering, Suspension and Alignment	1	4	3
AUM 124 Engine Repair	1	4	3
AUM 130 Drive Train and Axles	1	4	3
AUM 133 Motor Vehicle Air Conditioning	1	4	3
AUM 181 Special Topics	1	0	1
AUM 182 Special Topics	0	4	2

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

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

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

**Automotive Service Technology: Career Certificate - page 91**

**Advanced Automotive Service Technology Short-Term Certificate** 470604 AAS

Available: Shoals Campus  
 Advisors: A. Austin (5449) [aaustin@nwsc.edu](mailto:aaustin@nwsc.edu)  
 J. Hackworth (5335) [joehackworth@nwsc.edu](mailto:joehackworth@nwsc.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.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
AUM 210 Electrical and Electronics Systems II	1	4	3
AUM 220 Engine Repair II	1	4	3
AUM 224 Manual Transmission & Transaxle	1	4	3
AUM 230 Auto Transmission & Transaxle	1	4	3
AUM 239 Engine Performance I	1	4	3
AUM 244 Engine Performance II	1	4	3
AUM 246 Automotive Emissions I	1	4	3
AUM 281 Special Topics	1	4	3

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

\*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.

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**Biomedical Equipment Technology Short-Term Certificate** 150401 BET

Available: Shoals Campus  
 Advisor: R. Reaves (5201) [rgr@nwsc.edu](mailto:rgr@nwsc.edu)

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

	Semester		
	Theory	Lab	Hours
BIO 103 Principles of Biology I	3	2	4
ILT 169 Hydraulics/Pneumatics	3	0	3
ILT 203 Biomedical Electronics I	3	0	3
ILT 204 Biomedical Electronics II	3	0	3
ILT 226 BMET Certification Preparation or Certification Preparation Elect.	3	0	3
ILT 294 Biomedical Electronics Clinical I	0	10	3
ILT 295 Biomedical Electronics Clinical II	0	10	3
<b>Total Semester Credit Hours</b>			<b>22</b>

**Electronics Technology: Associate in Applied Science Degree - page 67**

**Basic Cabinetmaking  
Short-Term Certificate**

480703 CAB

Available: Shoals Campus  
 Advisors: Charles Hardy (5236) [charles.hardy@nwscc.edu](mailto:charles.hardy@nwscc.edu)  
 J. Hackworth (5335) [joehackworth@nwscc.edu](mailto:joehackworth@nwscc.edu)

The 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 estimate, with accuracy, long a job should take to complete, and its cost.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
CAB 101 Introduction to Cabinetmaking	1	4	3
CAB 102 Introduction to Lumber	1	6	3
CAB 103 Sizes and Dimensions	1	4	3
CAB 104 Cabinet Shop Operations	3	0	3
CAB 110 Basic Safety Tools and Equipment	2	5	4
CAB 142 Woodfinishing and Spraying	2	8	5
CAB 204 Cabinetmaking/Millwork	1	10	5
<b>Total Semester Credit Hours</b> .....	<b>26</b>		

**Carpentry/Cabinetmaking:  
Associate in Occupational Technology Degree - page 85  
Career Certificate - 92**

**Basic Carpentry  
Short-Term Certificate**

460201 BC

Available: Shoals Campus  
 Advisors: Charles Hardy (5236) [charles.hardy@nwscc.edu](mailto:charles.hardy@nwscc.edu)  
 J. Hackworth (5335) [joehackworth@nwscc.edu](mailto:joehackworth@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.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
CAR 112 Floors, Walls, Site Prep	3	0	3
CAR 113 Floors, Walls, Site Prep Lab	0	9	3
CAR 121 Introduction to Blueprint Reading	3	0	3
CAR 131 Roof and Ceiling Systems	3	0	3
CAR 133 Roof and Ceiling Systems Lab	0	9	3
CAR 134 Stairs, Molding and Trim	2	5	4
CAR 211 Construction Specialities	3	0	3
CAR 217 Estimating Materials	1	5	3
<b>Total Semester Credit Hours</b> .....	<b>25</b>		

\*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.

**Carpentry/Cabinetmaking:  
Associate in Occupational Technology Degree - page 85  
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## **Chemical Laboratory Technician Short-Term Certificate**

410301 CHM

Available: Phil Campbell and Shoals Campuses  
 Advisors: C. Sockwell (5378) [sockwell@nwsc.edu](mailto:sockwell@nwsc.edu)  
 M. Murphy (6246) [docm@nwsc.edu](mailto:docm@nwsc.edu)

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

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

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
BIO 103 Principles of Biology I	3	2	4
CHM 111 College Chemistry I	3	3	4
CHM 112 College Chemistry II	3	3	4
**ENG 101 English Composition I	3	0	3
ENG 130 Technical Report Writing	3	0	3
MTH 112 Precalculus Algebra	3	0	3
MTH 265 Elementary Statistics	3	0	3

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

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

## **Child Development Short-Term Certificate**

190708 CHD

Available: Phil Campbell and Shoals Campuses  
 Advisors: D. Durdunji (5450) [durdunji@nwsc.edu](mailto:durdunji@nwsc.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 has an interest in or a desire to upgrade his or her knowledge in child care work and has a high school diploma or GED will be eligible for this short-term certificate.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
CHD 201 Child Growth and Development Principles	3	0	3
CHD 202 Children's Creative Experiences	2	2	3
CHD 203 Children's Literature and Language Development	2	2	3
CHD 204 Methods and Materials for Teaching Children	2	2	3
CHD 206 Children's Health and Safety	3	0	3
CHD 205 Program Planning for Educating Young Children	3	0	3
CHD 215 Supervised Practical Experience in Early Childhood Education	0	6	3
**CHD Electives	6	0	6

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

\*\*CHD Electives

CHD 100 Introduction to Early Care and Education  
 CHD 208 Administration of Child Development Programs  
 CHD 209 Infant and Toddler Education Programs  
 CHD 210 Educating Exceptional Young Children  
 CHD 214 Families and Communities in Early Care

**Child Development:**  
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**Associate in Applied Science Degree - page 64**

**Computer Aided Design Engineering Technology Short-Term Certificate**      151301 DDT

Available: Shoals Campus  
 Advisor: A. Rice (5257) [rice@nwscce.edu](mailto:rice@nwscce.edu)  
 M. Hubka (5270) [hubka@nwscce.edu](mailto:hubka@nwscce.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.

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Semester		Hours
	Theory	Lab	
DDT 104 Basic Computer Aided Drafting and Design	1	4	3
DDT 127 Intermediate Computer Aided Drafting and Design	1	4	3
DDT 231 Advanced CAD Drafting and Design Elective	2	3	3
	X	X	6

**Total Semester Credit Hours ..... 15**

NOTE: Two Drafting electives totaling 6 semester hours is required. Students should consult advisor concerning other possible electives from other program areas.

**Design Engineering Technology:  
 Associate in Applied Science Degree - page 66**

**Computer Technology PC Hardware Technician Short-Term Certificate**      110101 PCH

Available: Shoals Campus  
 Advisors: S. Harrison (5250) [sam@nwscce.edu](mailto:sam@nwscce.edu)  
 S. Chandler (5234) [schandler@nwscce.edu](mailto:schandler@nwscce.edu)  
 T. James (6281) [timmy.james@nwscce.edu](mailto:timmy.james@nwscce.edu)  
 T. Roberson (5276) [roberson@nwscce.edu](mailto:roberson@nwscce.edu)  
 J. James (6234/5346) [jamesje@nwscce.edu](mailto:jamesje@nwscce.edu)  
 P. Peters (6326) [ppeters@nwscce.edu](mailto:ppeters@nwscce.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 service. The need for qualified technicians is continually expanding. These technicians need to know how to diagnose, configure, install, upgrade, and service industry standard microcomputers. This program is designed to provide the skills to become employed as a PC Hardware Technician.

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Semester		Hours
	Theory	Lab	
CIS 249 Microcomputer Operating Systems	3	0	3
ILT 101 Survey of Electronics	3	0	3
ILT 112 Concepts of Digital Circuits	3	6	5
ILT 131 Personal Computer Problem Determination	2-3	3-0	3
CIS 150 Intro to Computer Logic and Programming	3	0	3
*CIS 199 Network Communications or ILT 135 Local Area Networks	3	0	3
CIS 268 Software Support or ILT 130 Software Installation and Maintenance	3	0	3
CIS 269 Hardware Support or ILT 129 Personal Computer Hd.	3	0	3
**CIS 146 Microcomputer Applications or ILT 175 Computer Fundamentals for Technology Students	3	0	3

**Total Semester Credit Hours ..... 29**

\* Course offered during summer semester only.  
 \*\*Students without prior computer knowledge or keyboarding should enroll in CIS 096.

**Computer Information Systems:  
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 Associate in Applied Science Degree - pages 64 & 65**

## Computer Technology PC Software Technician Short-Term Certificate

110101 PST

Available: Shoals Campus  
 Advisors: E. Carter (5277) [cartere@nwscce.edu](mailto:cartere@nwscce.edu)  
 T. James (6281) [timmy.james@nwscce.edu](mailto:timmy.james@nwscce.edu)  
 S. Chandler (5234) [schandler@nwscce.edu](mailto:schandler@nwscce.edu)  
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 J. James (6234/5346) [jamesje@nwscce.edu](mailto:jamesje@nwscce.edu)  
 P. Peters (6326) [ppeters@nwscce.edu](mailto:ppeters@nwscce.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 101.  
 Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
**CIS 146 Microcomputer Applications	3	0	3
CIS 147 Advanced Microcomputer Applications	3	0	3
*CIS 148 Post Advanced Microcomputer Applications	3	0	3
CIS 249 Microcomputer Operating Systems	3	0	3
CIS Elective	3	0	3
MTH 246 Mathematics of Finance or MTH 116 Mathematical Appl.	3	0	3
CIS 268 Software Support or ILT 130 PC Software Installation and Maintenance	2-3	3-0	3
OAD 133 Business Communications or BUS 215 Business Communications	3	0	3
<b>Total Semester Credit Hours</b> .....	<b>24</b>		

\* Course offered during summer semester only.

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

**Computer Information Systems:  
 Associate in Science Degree - page 51  
 Associate in Applied Science Degree - pages 64 & 65**

## Cosmetology Esthetics Short-Term Certificate

120401 CES

Available: Shoals Campus  
 Advisor: C. Bankston (5265) [bankstonc@nwscce.edu](mailto:bankstonc@nwscce.edu)  
 T. Sharp (5420) [tsharp@nwscce.edu](mailto:tsharp@nwscce.edu)  
 J. Hackworth (5335) [joehackworth@nwscce.edu](mailto:joehackworth@nwscce.edu)

This short-term certificate is designed for the student desiring a career in skin care services as a licensed Esthetician. Courses include lab and theory classes with emphasis on facial treatments. After successful completion of three semesters and a designated number of credit unit tasks, students are eligible to make application for examination.

**All entering students are required to complete ORT 100 unless transferred from another university or college.**

	Semester		
	Theory	Lab	Hours
COS 131 Esthetics	3	0	3
COS 132 Esthetics Applications	0	9	3
COS 160 Image Projection	0	9	3
COS 163 Facial Treatment	3	0	3
COS 164 Facial Machine	0	9	3
COS 165 Related Subjects Estheticians	0	9	3
COS 168 Bacteriology and Sanitation	3	0	3
COS 169 Skin Functions	0	9	3
COS 135 Advanced Esthetics Applications	0	5-15	3
<b>Total Semester Credit Hours</b> .....	<b>27</b>		

\*\*Students may receive course specific credit for courses 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.

**Cosmetology:  
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 Career Certificate - page 92**

### **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.

**Cosmetology/Nail Technology 120401 CNT Short-Term Certificate**

Available: Shoals Campus  
 Advisors: C. Bankston (5265) [bankstonc@nwscc.edu](mailto:bankstonc@nwscc.edu)  
 J. Hackworth (5335) [joehackworth@nwscc.edu](mailto:joehackworth@nwscc.edu)

Nail Technology is a short-term certificate of instruction for students seeking licensing as a Nail Technician. Topics include personal development, employability skills, professionalism, sanitation, nail diseases and disorders, nail structure, anatomy, massage, and product knowledge. Related technical knowledge, including salon business management, is included with job skills taught during lab instruction on manicuring and pedicuring nail care procedures. The student is taught to perform procedures for application of nail wraps, artificial nails using acrylic, gel, and fiberglass systems, and techniques in air brush nail art. Students acquire real-work experience providing nail services to clientele in a lab setting that simulates a nail salon.

After successful completion of the required courses and a designated number of skills, the student is eligible to make application for state board examinations required for licensing. This training is transferable to other states for licensing through the State Boards of Cosmetology reciprocity agreement.

Licensed Nail Technicians may work in salons, nail shops, spas, department stores, as sales representatives, management, beauty supply distributors, instructors, examiners for State licensing boards, or become self-employed.

This short-term certificate does not require a high school diploma or GED certificate. A student must be at least 16 years old to enroll.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
COS 124 Salon Management	3	0	3
COS 125 Career and Personal Development	1	5	3
COS 151 Nail Care	3	0	3
COS 152 Nail Care Applications	0	9	3
COS 153 Nail Art	3	0	3
COS 154 Nail Art Applications	0	9	3
COS 167 State Board Review	0	9	3
COS 168 Bacteriology and Sanitation	3	0	3
COS 181 or 182 Special Topics in Nail Science	0	3	3

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

\*\*An elective course providing work experience as a Nail Technician. The student works a minimum of 15 contact hours each week in an area related to the student's program of study.

\*\*\*Students may receive course specific credit for courses 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.

**Cosmetology:  
 Associate in Occupational Technology Degree - page 86  
 Career Certificate - page 92**

**Cosmetology 120499 CIT Instructor Training Short-Term Certificate**

Available: Shoals Campus  
 Advisor: C. Bankston (5265) [bankstonc@nwscc.edu](mailto:bankstonc@nwscc.edu)  
 J. Hackworth (5335) [joehackworth@nwscc.edu](mailto:joehackworth@nwscc.edu)

Cosmetology Instructor training is a teacher training program for licensed managing nails or estheticians. 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 this short-term certificate.

The full time program consists of two semesters. The part time program consists of four semesters. After completion of the prescribed curriculum, the student is eligible to take the Alabama state exam for an instructor's license. Completed courses and hours are transferable to other states for licensing. Requirements for admission:

- . Application with Northwest-Shoals Community College
- . Interview with Cosmetology Instructor
- . Student must have current Managing Nails or Estheticians License
- . Student must meet Alabama Board of Cosmetology requirements
- . Student instructors will furnish their books and materials necessary for the course
- . Associate Degree or higher is required

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
CIT 211 Teaching and Curriculum Development	3	0	3
CIT 212 Teacher Mentorship	0	9	3
CIT 213 Lesson Plan Development	3	0	3
CIT 221 Lesson Plan Implementation	0	9	3
CIT 222 Instructional Materials and Methods	3	0	3
CIT 223 Instructional Materials and Methods Applications	0	9	3

**Total Semester Credit Hours ..... 18**

**Cosmetology:  
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**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.

**EMT-Basic  
Short-Term Certificate**

510904 EMT

	Semester		
	Theory	Lab	Hours
EMS 116 EMS Basic Theory and Lab	6	3 (1E)	9
EMS 117 EMS Basic Clinical Competencies I	0	3 (P3)	1
<b>Total Semester Credit Hours .....</b>	<b>10</b>		

**EMS 100 and EMS 107 are not required for graduation but, are required by the State of Alabama to obtain licensures as an EMT Basic Driver.**

**EMS 106 Medical Terminology not required but highly recommended.**

**Emergency Medical Services:  
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**Energy Management  
Technology  
Short-Term Certificate**

150503 ECT

Available: Shoals Campus  
Advisor: J. Hackworth (5335) [joehackworth@nwscc.edu](mailto:joehackworth@nwscc.edu)

The Energy Management certificate is offered to students in Heating and Air Conditioning, Industrial Electricity, and Industrial Electronics and in-field personnel who have a high school diploma or GED. This certificate would enable a student to enhance his/her career potential in the area of energy control and use technology. Students should contact advisor for further information.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		
	Theory	Lab	Hours
ECT 241 Introduction to Energy Management	1	6	3
ECT 242 Audit-Accounting Conservation	2	6	3
ECT 243 Basic Energy Management Systems (ELT 231 Programmable Controls I)	2	6	3
ECT 244 Energy Management Systems (ELT 232 Programmable Controls II)	2	6	3
ECT 252 Advanced Energy Management (ELT 222 Advanced Electronics for the Electrician)	2	6	3
ECT 253 Direct Digital Control (ELT 221 Electronics for Electricians I)	2	6	3
ECT 254 Test and Balance Instrumentation (ACR 205 System Sizing and Air Distribution)	2	6	3
Electives			3
<b>Total Semester Credit Hours .....</b>	<b>24</b>		

Electives:

FSC 211 Building Construction and Related Codes  
FSC 270 Fire Protection Systems  
ACR 115 Heating Systems  
ACR 123 HVACR Electrical Components  
ACR 138 Customer Relation in HVAC  
ACR 143 HVAC Industry Codes  
ACR 182 Parallel Refrigeration  
ACR 203 Commercial A/C  
ACR 204 Commercial Air Conditioning  
ELT 121 Basic AC/DC Machines  
ELT 122 Advanced AC and DC Machines  
ELT 131 Commercial/Industrial Wiring I  
ELT 211 Motor Control I  
ELT 212 Motor Control II  
ELT 233 Applied Programmable Controls

**Air Conditioning/Refrigeration Technology:  
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**Environmental, Health & Safety 150507 EHS Technician Short-Term Certificate**

Available: Shoals Campus  
 Advisor: S. McGouyrk (5246) [stevem@nwscce.edu](mailto:stevem@nwscce.edu)  
 C. Eubanks (5293) [eubanks@nwscce.edu](mailto:eubanks@nwscce.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.

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Semester		Hours
	Theory	Lab	
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	4	0	4
EVT 260 Introduction to Industrial Hygiene	3	0	3
<b>Total Semester Credit Hours</b>			<b>24</b>

**Environmental Health and Safety:**  
**Associate in Science Degree - page 51**  
**Associate in Applied Science Degree - page 71**

**Fire Science/Fire Services Management 430202 FSC Short-Term Certificate**

Available: Shoals Campus  
 Advisor: S. McGouyrk (5246) [stevem@nwscce.edu](mailto:stevem@nwscce.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.

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Semester		Hours
	Theory	Lab	
FSC 101 Introduction to Fire Science	3	0	3
FSC 200 Fire Combat Tactics and Strategy	3	0	3
FSC 210 Building Construction for the Fire Service	3	0	3
FSC 240 Fire Cause Determination	3	0	3
FSC 292 Elements of Supervision/ Fire Service Supervision	3	0	3
<b>Total Semester Credit Hours</b>			<b>15</b>

**Fire Science/Fire Service:**  
**Associate in Science Degree - page 52**

**Industrial Systems Technology 470303 INS Short-Term Certificate**

Available: Shoals Campus  
 Advisors: R. Garner (5254) [wgarner@nwscce.edu](mailto:wgarner@nwscce.edu)  
 T. Maupin (5247) [tmaupin@nwscce.edu](mailto:tmaupin@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. These skills include: Programming PLC, working on manual motor controls, installation and maintenance of hydraulics system, and working on and maintaining various types of pumps as well as all mechanical drives. The classes are both theory and lab-based in order to produce a well-rounded mechanic.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Semester		Hours
	Theory	Lab	
INT 106 Elements of Industrial Mechanics or MSP 136 Machine Repair	1	6	3
INT 117 Principles of Industrial Mechanics or MSP 135 Millwright	2	6	4
INT 134 Principles of Industrial Maintenance Welding and Metal Cutting Techniques or WDT 157 Consumable Welding Processes	3	0	3
INT 102 Industrial Maintenance Cutting/Welding or WDT 158 Consumable Welding Processes	0	3	3
MTH 103 Intro to Technical Math	3	0	3
INT 118 Fundamentals of Industrial Hydraulics and Pneumatics	1	2	3
INT 121 Industrial Hydraulics Troubleshooting	1	2	3
INT 127 Principles of Industrial Pumps and Piping Systems	2	1	3
INT 161 Blueprint Reading for Industrial Technicians	3	0	3
<b>Total Semester Credit Hours</b>			<b>28</b>

**Industrial Systems Technology:**  
**Associate in Applied Science Degree - pages 72 & 73**  
**Career Certificate - page 94**

**Nursing Assistant**

511614 NAS

Available: Shoals Campus  
 Advisors: S. Smith (6207/5337) [shelia.smith@nwsc.edu](mailto:shelia.smith@nwsc.edu)  
 C. Tidwell (5305) [cindy@nwsc.edu](mailto:cindy@nwsc.edu)

The Nurse Assistant course includes instruction in theory, nursing skills lab and a clinical rotation in a health care facility.

After successful completion of the 80-hour nurse assistant course, NAS 100, the student will meet requirements to take the State Nurses Aide Certification Test. This certificate enables the Nursing Assistant to obtain employment in nursing homes, hospitals or home health care agencies. A basic introduction to the health field and home health care is provided. This program does not require a high school diploma or GED certificate for admission. Students must be at least 18 years of age in order to take the State Nurse's Aide Certification Test.

Note that the amounts listed are approximations and that they are subject to change without notice.

Tuition and fees .....	\$ 460.00
Textbook .....	\$ 48.75
Liability Insurance .....	\$ 20.00
TB Skin Test .....	varies
Background Check .....	\$ 45.00
Certification Exam .....	\$ 95.00

**Nursing:****Associate in Science Degree - page 60****Associate in Applied Science Degree - page 75****Career Certificate - page 95****Water and Wastewater**

150506 W&amp;M

**Management and Technology****Short-Term Certificate**

Available: Shoals Campus  
 Advisors: S. McGouyrk (5246) [stevem@nwsc.edu](mailto:stevem@nwsc.edu)  
 M. Murphy (6246) [docm@nwsc.edu](mailto:docm@nwsc.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.

**Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.**

	Theory	Lab	Semester Hours
WMT 100 Water Supply and Wastewater Control	3	0	3
WMT 101 Introduction to Water Treatment Processes	3	0	3
WMT 102 Introduction to Wastewater Treatment Processes	3	0	3
WMT 120 Sanitary Chemistry and Biology	3	0	3
WMT 213 Water and Wastewater Instrumentation and Controls	3	0	3
WMT 214 Basic Hydraulics for Water and Wastewater Technology	3	0	3
WMT 290 Industrial Internship I or WMT 291 Municipal Internship I or CIS Elective	0	15	3
<b>Total Semester Credit Hours .....</b>			<b>21</b>

**Water and Wastewater Management:  
 Associate in Science Degree - page 62**

**Basic Welding Technology  
 Short-Term Certificate**

480508 WDT

Available: Shoals Campus  
 Advisors: W. Garner (5254) [wgarner@nwsc.edu](mailto:wgarner@nwsc.edu)  
 J. Hackworth (5335) [joehackworth@nwsc.edu](mailto:joehackworth@nwsc.edu)  
 L. Liles (8072) [lliles@nwsc.edu](mailto:lliles@nwsc.edu)  
 B. Keeton (6389) [bkeeton@nwsc.edu](mailto:bkeeton@nwsc.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.

**Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.**

	Theory	Lab	Semester Hours
WDT 108 SMAW Fillet/OFC	3	0	3
WDT 109 SMAW Fillet/PAC/CAC	3	0	3
WDT 110 Industrial Blueprint Reading	3	0	3
WDT 119 Gas Metal Arc/Flux Cored Arc Welding Theory	3	0	3
WDT 122 SMAW Fillet/OFC Lab	0	3	3
WDT 123 SMAW Fillet/PAC/CAC Lab	0	3	3
WDT 124 Gas Metal Arc/Flux Cored Arc Welding Lab	0	3	3
WDT 218 Certification Theory	3	0	3

**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.

**Welding:**

**Associate in Occupational Technology Degree - page 89  
 Career Certificate - page 97**