

## Air Conditioning/Refrigeration Technology AOT Degree

Available: Shoals Campus  
Advisors: J. Hackworth (5335) [joehackworth@nwsc.edu](mailto:joehackworth@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 ORT 100. 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 degree creditable mathematics 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 ..... 18**

Major Requirements	Semester Hours
ACR 111 Refrigeration Principles ..... 3	
ACR 112 HVACR Service Procedures ..... 3	
ACR 113 Refrigeration Piping Practices ..... 3	
ACR 119 Fundamentals of Gas Heating Systems ..... 3	
ACR 123 HVACR Electrical Components ..... 3	
ACR 126 Commercial Heating Systems ..... 3	
ACR 132 Residential Air Conditioning ..... 3	
ACR 135 Mechanical/Gas/Safety Codes ..... 3	
ACR 148 Heat Pump Systems I ..... 3	
ACR 181 Parallel Refrigeration ..... 3	
ACR 203 Commercial Refrigeration ..... 3	
ACR 205 System Sizing and Air Distribution ..... 3	
ACR 209 Commercial Air Conditioning Systems ..... 3	
ACR Elective ..... 6	
<b>Total Major Requirements ..... 45</b>	

### Minor Requirements

<i>Electrical Technology</i>	<b>309999 AET</b>
ELT 111 Concepts of Direct Current ..... 5	
ELT 112 Concepts of Alternating Current ..... 5	
ELT Elective ..... 2	
<b>Total Minor Requirements ..... 12</b>	

### Minor Requirements

<i>Welding</i>	<b>309999 AWT</b>
WDT 111 Cutting Processes Theory ..... 2	
WDT 151 Cutting Processes Lab ..... 2	
WDT 112 Shielded Metal Arc Fillet Theory ..... 2	
WDT 152 Shielded Metal Arc Fillet Welding ..... 3	
WDT Elective ..... 3	
<b>Total Minor Requirements ..... 12</b>	

**General Requirements ..... 18**  
**Total Requirements for AOT Degree ..... 75**

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

## Air Conditioning/Refrigeration Technology Career Certificate 150501 ACR

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

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

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

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

Transfer Students: Students may receive up to one semester for clock hours and credit units earned at another institution.

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

	Semester		
	Theory	Lab	Hours
COM 100 Introductory Technical English I	3	0	3
MAH 101 Introductory Mathematics I	2	2	3
ACR 111 Refrigeration Principles	2	3	3
ACR 112 HVACR Service Procedures	2	3	3
ACR 113 Refrigeration Piping Practices	1	5	3
ACR 119 Fundamentals of Gas Heating Systems	1	5	3
ACR 121 Principles of Electricity for HVACR	2	3	3
ACR 122 HVACR Electrical Circuits	2	3	3
ACR 123 HVACR Electrical Components	2	3	3
ACR 126 Commercial Heating Systems	2	3	3
ACR 132 Residential Air Conditioning	2	3	3
ACR 135 Mechanical/Gas/Safety Codes	2	3	3
ACR 148 Heat Pump System I	1	5	3
ACR 181 Parallel Refrigeration	2	3	3
ACR 203 Commercial Refrigeration	1	5	3
ACR 205 System Sizing and Air Distribution	2	3	3
ACR 209 Commercial Air Conditioning	2	3	3
ACR Elective			6
<b>Total Semester Credit Hours</b>	<b>57</b>		

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

## Automotive Collision Repair AOT Degree

Available: Shoals Campus  
 Advisors: E. Reid (5231) [ereid@nwscc.edu](mailto:ereid@nwscc.edu)  
 J. Hackworth (5236/5335) [joehackworth@nwscc.edu](mailto:joehackworth@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 ORT 100. Transfer students are exempt from this requirement.**

	Semester Hours
Area I: Written Composition ..... 3 English Composition I and/or Technical Writing	3
Area II: Humanities and Fine Arts .....	3
Area III: Natural Science and Mathematics ..... 9 A minimum of 3 hours in degree creditable mathematics is required. Math must be 100 or higher. 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.	9
Area IV: History, Social and Behavioral Sciences ..... 3 Courses may be taken from the disciplines of history, economics, geography, political science, psychology, and sociology.	3

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