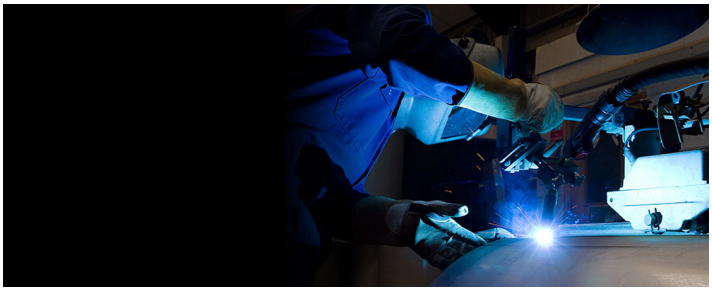
APPLIED INDUSTRIAL TECHNOLOGY (SHEET METAL WORKING), ASSOCIATE OF APPLIED SCIENCE



Students must be working in a registered apprenticeship program in conjunction with the U. S. Department of Labor, Bureau of Apprenticeship and Training. Sheet Metal Workers make, install, and maintain heating, ventilation, and air-conditioning duct systems; roofs; siding; rain gutters; downspouts; skylights; restaurant equipment; outdoor signs; railroad cars; tailgates; customized precision equipment; and many other products made from metal sheets. They also may work with fiberglass and plastic materials. The apprenticeship certificate recognizes student attaining journey-level status at the completion of the technical studies. Apprentices may apply technical studies together with general education coursework toward the Associate of Applied Science degree with a concentration in Sheet Metal Working.

Program contact: Learn more

This degree program contains one or more embedded certificates which will be automatically awarded when the certificate requirements are completed. If you do not want to receive the embedded certificate(s), please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more about how certificate credits apply to the related degree.

Program Admission Requirements

- Participant must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training.
- High School Diploma/GED

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

1. Communicate verbally, nonverbally and in writing using appropriate technology with co-workers, other trades, design professionals, suppliers and end users in order to complete projects in a timely fashion in accordance with local codes and job specifications.
2. Working independently or as part of a team in a respectful and professional manner, resolving conflicts when needed, in order to complete a project in a timely fashion.
3. Exhibit pride of craftsmanship and reliability; actively engage in all aspects of the project and take opportunities to upgrade skills.
4. Recognize hazardous materials and conditions, wear appropriate personal protective equipment and take preventative measures following federal, state, local laws, policies and procedures.
5. Layout and fabricate sheet metal items safely using shop equipment, hand and power tools, computerized equipment and apply basic math to meet job specifications in accordance with Sheet Metal Air Condition Contractors National Association (SMACNA).
6. Install sheet metal items safely using hand and power tools, ladders, scaffolds and lifting devices, and apply basic math to meet job specifications in accordance with SMACNA standards.
7. Read and interpret blueprints, specifications and shop drawing in order to fabricate and install various sheet metal components.
8. Startup HVAC equipment and service accordingly to meet project specification.
9. Safely test and balance an installed system to ensure that it is operating to design specifications.
10. Be certified in OSHA 10 and OSHA 30 Construction Safety and Health. Be prepared for the following certifications:
    a. EPA Section 608 Certification
    b. AWSD1.1 and AWSD1.9 Welding Certifications
    c. HVAC Firelife Safety Level 1 Technician Certification

Suggested Semester Sequence

First Semester		**Credit Hours**
ATSM-1010	Benefits Management	1
ATSM-1020	Trade History	1
ATSM-1030	Layout and Fabrication I	2
ATSM-1060	Sheet Metal OSHA 30	2
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
Select one of the following:		3
IT-1090	Computer Applications	
IT-109H	Honors Computer Applications	
Select one of the following:		3
BADM-xxxx	Business Elective	
CNST-xxxx	CNST Elective	
	Credit Hours	15
Second Semester		
ATSM-1220	Layout and Fabrication II	2
ATSM-1230	Field Installation	3
ATSM-2540	SMART ICRA	1
MATH-1xxx	1000-level MATH course or higher	3
Select one of the following:		3
BADM-xxxx	Business Elective	
CNST-xxxx	CNST Elective	
	Credit Hours	12
Third Semester		
ATSM-2310	Refrigeration I	1
ATSM-xxxx	ATSM Elective	3
Select one of the following:		3
BADM-xxxx	Business Elective	
CNST-xxxx	CNST Elective	

Arts & Humanities requirement		3
Social & Behavioral Sciences requirement		3
	Credit Hours	13
Fourth Semester		
ATSM-2420	Refrigeration II	2
ATSM-xxxx	ATSM Elective	3
ATSM-xxxx	ATSM Elective	3
ATSM-xxxx	ATSM Elective	2
ATSM-xxxx	ATSM Elective	2
Communication requirement		3
	Credit Hours	15
Summer Completion		
AIT-2990	Contracting in a Diverse World	3
ATSM-1050	Fire Life Safety Tech I	1
ATSM-2790	Sheet Metal Foreman Training	1
	Credit Hours	5
	Total Credit Hours	60

[1] The three credits for the ATSM electives can be earned by completing any combination of one, two, and/or three credit hour ATSM courses.

Construction Management Electives

Code	Title	Credit Hours
CNST-1731	Construction Print Reading	3
CNST-2131	Construction Methods and Materials	3
CNST-2631	Construction Management Systems	3
CNST-2990	Construction Estimating & Cost Analysis	3

Business & Supervision Electives

Code	Title	Credit Hours
BADM-1020	Introduction to Business	3
BADM-1210	Labor-Management Relations	3
BADM-1122	Principles of Management and Organizational Behavior	3
BADM-2240	Negotiations	3
BADM-2151	Business Law	3

Entrepreneur Electives

Code	Title	Credit Hours
BADM-2450	New Business Development	5
BADM-1301	Small Business Management	3