MILLWRIGHTING, CERTIFICATE OF PROFICIENCY

Students must be currently working in a registered apprenticeship program in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training. A four year apprenticeship emphasizes the skill set required to be a highly skilled craftsman. Millwrights install, maintain, and troubleshoot industrial equipment such as conveyors, monorails, combustion turbines, and various rotating equipment. 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 Millwrighting.

Program contact: Learn more

Financial Assistance funds cannot be applied towards this program.

This certificate will be automatically awarded when the certificate requirements are completed. If you do not want to receive the certificate, 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

- Intent-to-hire agreement with participating contractor.

Other Information

- Participant must be working in an apprenticeship in conjunction with the U.S. Department of Labor, Bureau of Apprenticeship and Training.

Program Learning Outcomes

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

a. Communicate verbally, nonverbally and in writing with the construction team that includes members of other trades, contractor and government agencies.
b. Work independently and in a team environment to accomplish the job in a timely and professional manner.
c. Recognize, analyze and apply critical thinking to resolve issues as they arise, minimize waste and improve productivity.
d. Use appropriate personal protective equipment and fall protection to ensure a safe and environmentally sensitive work environment in accordance with OSHA and other federal, state, local and contractor's standards and policies.
e. Exhibit pride of craftsmanship, reliability, commitment to the organization and take opportunities to upgrade skills.
f. Apply basic math concepts and operations and blueprint reading to accurately determine layout in order to fabricate and install various construction tasks that minimize waste.
g. Be certified in OSHA, CPR/First Aid, Scaffold, fall protection and MSDS.
h. Apply knowledge of mechanics, welding, tools and equipment to diagnose, recommend, design, fabricate and install machine and conveyor compressors and tools that efficiently solve a given customer problem(s) within their time frame and budget.
i. Move and install machinery using forklifts, rigging hardware and tools in a safe, effective and efficient manner.
j. Use precision tools to check for tolerances, and perform alignment within .001 of an inch in order to recommend necessary repairs of turbines, pumps and other related power plant equipment.
k. Be certified in forklift, rigging, aerial lift, welding, high torque and turban.

Suggested Semester Sequence

First Semester		**Credit Hours**
ATCT-1301	Introduction to Carpentry	2
ATMW-1320	Introduction to Millwrighting	2
ATMW-1330	Print Reading for Millwrights	2
ATMW-1350	Hydraulics/Centrifugal Pumps	2
ATMW-1450	Heavy Rigging	2
ATMW-1490	Millwright Pile Driver Weld I	2
	Credit Hours	**12**
Second Semester		
ATCT-1310	Carpentry Safety	2
ATMW-1720	Machinery Installation	2
ATMW-2120	Shaft Alignment	2
ATMW-2230	Millwright Pile Driver Weld II	2
ATMW-2350	Floor Conveyor	2
ATXX-xxxx	ATxx Elective Apprenticeship course	2-3
	Credit Hours	**12-13**
Summer Completion		
ATMW-2130	Shaft Alignment II	2
ATMW-2520	Millwright PileDriver Weld III	2
ATPD-2700	Millwright-Pile Driver Weld IV	2
	Credit Hours	**6**
	Total Credit Hours	**30-31**

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.