BASIC WELDER, MANUFACTURING TECHNOLOGY (TECHNICAL CERTIFICATE)

Award: Technical Certificate
Program of Study: Manufacturing Technology
Specialization: Basic Welder
Program Code: 1110

This Basic Welder program is designed to provide training and opportunity to become proficient at SMAW, GMAW, OAC, PAC, blueprint reading, mathematics, and safety. This program offers classroom lecture and related lab work. Welding, cutting, layout, safety, attitude and quality of workmanship are stressed throughout this program. The Basic Welding certificate prepares students for welding helper-apprentice position in the welding industry and is designed to meet competency based standards set by the American Welding Society. This program prepares students to become certified AWS certified welders in the welding industry upon successful completion of the appropriate test standard.

For more information on what you can do with this major, visit CMU Tech's Programs of Study page.

All CMU/CMU Tech technical certificate graduates are expected to demonstrate proficiency in specialized knowledge/applied learning, communication fluency, and critical thinking. In addition to these campus#wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written forms that are needed for entry level employment in the industry. (Communication Fluency)
2. Apply Mathematical concepts to meet entry level employment requirements. (Quantitative Fluency)
3. Research, evaluate, synthesize and apply information/data relevant to the industry. (Critical Thinking)
4. Demonstrate knowledge of welding terminology, symbols, business practices, principles and application of associated technical skills (Specialized Knowledge/Applied Learning)
5. Perform the necessary applied welding skill sets to fulfill the needs of entry level employment. (Applied Learning)
6. Demonstrate ethical and civic responsibility necessary for employees in the industry. (Specialized Knowledge).

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Certificate Requirements

The following institutional requirements apply to all CMU or CMU Tech Technical Certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-59 semester hours.
- Consists of 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU/CMU Tech.
- 2.00 cumulative GPA or higher in all CMU/CMU Tech coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Certificate Requirements

(16 semester hours)

- Students in Welding may be required to purchase approximately $500.00 in tools and personal safety welding equipment. This does not include required textbooks. These costs may vary with student need and brand or quality of tools or equipment purchased. All safety glasses must meet the minimum industry safety standard of Z-87 with side shields.

Code	Title	Semester Credit Hours
MAMT 105	Print Reading and Sketching	2
WELD 110	Shielded Metal Arc Welding	4
WELD 117	Oxy-Fuel and Plasma Arc Cutting	2
WELD 201	Gas Metal Arc Welding	4
MATH 107	Career Math	3
ELCE 124	Electrical Safety	1
Total Semester Credit Hours		**16**

Advising and Graduation
Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one-semester certificates, complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found on the Graduation web page.

If a student's petition for graduation is denied, it will be their responsibility to apply for graduation in a subsequent semester. A student's "Intent to Graduate" does not automatically move to a later graduation date.