

Welding

Welding, Industrial Technician

Program Description

Designed to upgrade the skills of persons employed as welders, providing advanced training in a variety of welding applications.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained upon completion of the 24-unit major listed below. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses for this major must be completed with a grade of C or better or a P if the course is taken on a Pass/No Pass basis. Certification of students as "Code Welders" is available at a nominal cost to the student.

Program Outcomes

Students who complete the Certificate of Achievement/Associate Degree will be able to:

1. Demonstrate competency in major welding processes used in industry.
2. Apply welding processes and the use of hand tools and shop equipment to fabricate projects.
3. Recognize and interpret technical drawings in the planning and fabrication of projects.
4. Demonstrate appropriate workplace safety policies and procedures during welding and fabrication operations.
5. Apply mathematical concepts to solve problems related to an industrial/technical environment.

REQUIRED COURSES	Units
DRFT 079 Blueprint Reading	3
IT 140 Industrial Materials	3
Electives selected from the list below	18
Total Units	24

Select 18 units from the following Units

WELD 120 Plate Welder (Basic)	3
WELD 121 Plate Code Welder (Advanced)	3
WELD 122 Pipe Welding (Basic)	3
WELD 123 Pipe Welding (Advanced)	3
WELD 124 Gas Tungsten Arc Welding (GTAW)	3
WELD 125 Gas Metal Arc Welding	3
WELD 126 Ornamental Iron Welding	3

Recommended Electives:

ENGL 051 Technical Writing
OCED 090 Occupational Work Experience
OCED 091 General Work Experience
WELD 174 Welding Equipment Operation
WELD 175 Welding Fabrication
WELD 176 Shielded Metal Arc Certification
WELD 177 Wire Welding Certification

Welding

Welding Technician

Program Description

Designed to prepare the graduate for employment as a welder or a welder helper in the metal trades. The major types of welding covered are shielded arc, acetylene gas welding, metal inert gas, tungsten inert gas, automatic and semi-automatic welding machines.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained upon completion of the 49-unit major listed below. The Associate in Science Degree can be obtained by completing a total of 69 units, including the major and the general education requirements. All courses for this major must be completed with a grade of C or better or a P if the course is taken on a Pass/No Pass basis. Certification of students as "Code Welders" is available at a nominal cost to the student.

Program Outcomes

Students who complete the Certificate of Achievement/ Associate Degree will be able to:

1. Demonstrate competency in major welding processes used in industry.
2. Apply welding processes and the use of hand tools and shop equipment to fabricate projects.
3. Recognize and interpret technical drawings in the planning and fabrication of projects.
4. Demonstrate appropriate workplace safety policies and procedures during welding and fabrication operations.
5. Apply mathematical concepts to solve problems related to an industrial/technical environment.

REQUIRED COURSES	Units
WELD 100 Welding Technology	10
WELD 101 Welding Technology	10
WELD 102 Welding Technology	10
WELD 103 Welding Technology	0
DRFT 079 Blueprint Reading	3
IT 140 Industrial Materials	3
IT 150 Industrial Processes	3
Total Units	49

Recommended Electives:

IT 120 102 Electrical Safety
OCED 090 Occupational Work Experience
OCED 091 General Work Experience
WELD 174 Welding Equipment Operation
WELD 175 Welding Fabrication
WELD 176 Shielded Metal Arc Certification
WELD 177 Wire Welding Certification

Some courses may not be offered. Please contact the Dean of Career and Technical Education for alternate courses if necessary.

Welding Equipment Operator Job-Direct Certificate

All courses must be completed with a grade of "C" or better.

REQUIRED COURSES	Units
WELD 174 Welding Equipment Operation	2
WELD 175 Welding Fabrication	2
WELD 176 Shielded Metal Arc Certification	2
WELD 177 Wire Welding Certification	2
OCED 090 * Occupational Work Experience	1
Total Units	9

*Students will be required to complete 80 hours of cooperative supervised work experience to receive credit.

