

Contact Us:

Jim Ladd, Program Director/Instructor
 Phone: (864) 941-8710 | Email: ladd.j@ptc.edu
 Tony Amos, Instructor
 Phone: (864) 682-3702 | Email: amos.m@ptc.edu

Program Overview

At the center of all industrial and construction expansion are technicians skilled in the art of joining metal. The strength and durability of heavy manufactured goods depend on the skills of welders joining metals with gas-fueled torches and electric-arc processes.

PROGRAM REQUIREMENTS

A.A.S. Major in General Technology, Welding Concentration

Students in the A.A.S. program learn to weld in the four main positions: flat, vertical, horizontal and overhead on both structured steel and pipe. Students are required to meet quality standards through practical weld tests as specified by the American Welding Society and the American Society of Mechanical Engineers Codes and Requirements. These tests ensure that graduates can perform quality work before they go on the job. These skills facilitate the student's entry into the job market, and completing an associate degree can lead to job advancement.

GENERAL EDUCATION	CREDIT HOURS
ENG 101 English Composition I..... <i>or ENG 165 Professional Communications</i>	3.0
Mathematical Requirement..... <i>(MAT 155, 170, 171 or approved courses on page 27 of the Academic Catalog)</i>	3.0
Social/Behavioral Science Elective..... <i>(See page 26 of the Academic Catalog for a list of courses)</i>	3.0
Lab Science or Mathematics..... <i>(See pages 26-27 of the Academic Catalog for a list of courses)</i>	3.0
Humanities/Fine Arts..... <i>(See page 26 of the Academic Catalog for a list of courses)</i>	3.0

REQUIRED CORE SUBJECT AREAS

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 103 Print Reading I.....	1.0
WLD 105 Print Reading II	1.0
WLD 106 Gas and Arc Welding.....	4.0
WLD 113 Arc Welding II.....	4.0
WLD 115 Arc Welding III	4.0
WLD 117 Specialized Arc Welding.....	4.0
WLD 142 Maintenance Welding.....	3.0

SUBTOTAL: 23.0

OTHER COURSES REQUIRED FOR GRADUATION

COURSES	CREDIT HOURS
MTT 120 Machine Tool Print Reading.....	3.0
MTT 121 Machine Tool Theory I.....	3.0
MTT 122 Machine Tool Practice I.....	4.0
MTT 143 Precision Measurement.....	2.0

SUBTOTAL: 12.0

TOTAL CREDIT HOURS: 62.0

ELECTIVES (MINIMUM OF 12 CREDIT HOURS)

Students may use credits in the Industrial Technology curricula section to develop a third technical specialty or to enhance the primary and secondary specialties.

**Students wishing to pursue an alternate secondary specialty should consult with their Academic Advisor.*

D.A.S., Major in Welding

At the center of all industrial and construction expansion are technicians skilled in the art of joining metal. The strength and durability of heavy manufactured goods depend on the skills of welders joining metals with gas-fueled torches and electric-arc processes.

Students in the one-year program learn to weld in the four main positions: flat, vertical, horizontal and overhead on both structured steel and pipe. Shop work gives the student practical experience in repair work on cast iron, silver brazing, soldering, stainless steel and aluminum. Before graduation, students are required to meet quality standards through practical weld tests as specified by the

American Welding Society and the American Society of Mechanical Engineers Codes and Requirements. These tests ensure that graduates can perform quality work before they go on the job. Practical experience in welding processes, together with a good foundation in blueprint reading and sketching and the weld ability and properties of metals, prepares the graduate for employment in a variety of industrial and construction settings.

This diploma provides students with a primary technical specialty. Students completing this credential can, by taking selected general education courses and a secondary technical specialty, have the opportunity to obtain an Associate in Applied Science with a major in General Technology. Students should meet with their advisor(s) to select the proper courses to meet their particular educational goals.

GENERAL EDUCATION COURSES

COURSES	CREDIT HOURS
ENG 165 Professional Communications.....	3.0
MAT 170 Algebra, Geometry and Trigonometry I.....	3.0
PSY 103 Human Relations	3.0

SUBTOTAL: 9.0

REQUIRED CORE SUBJECT AREAS

COURSES	CREDIT HOURS
WLD 106 Gas and Arc Welding	4.0
<i>or WLD 102 Introduction to Welding.....</i>	<i>2.0</i>
<i>and WLD 142 Maintenance Welding.....</i>	<i>3.0</i>
WLD 103 Print Reading I.....	1.0
WLD 105 Print Reading II	1.0
WLD 208 Advanced Pipe Welding	3.0
WLD 212 Destructive Testing	2.0

SUBTOTAL: 11.0/12.0

OTHER COURSES REQUIRED FOR GRADUATION

COURSES	CREDIT HOURS
WLD 113 Arc Welding II.....	4.0
WLD 115 Arc Welding III	4.0
WLD 117 Specialized Arc Welding.....	4.0
WLD 132 Inert Gas Welding Ferrous.....	4.0
WLD 136 Advanced Inert Gas Welding.....	2.0
WLD 154 Pipefitting and Welding	4.0

SUBTOTAL: 22.0

TOTAL CREDIT HOURS: 42.0/43.0

Basic Welding Certificate

A wide variety of career opportunities are available to students who prepare for actual work situations through practical training in welding processes, blueprint reading and sketching. Students in this program learn to weld in the four main welding positions on plate and pipe using several welding processes. This certificate prepares the graduate for employment in a variety of industrial and construction settings.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 103 Print Reading I.....	1.0
WLD 105 Print Reading II	1.0
WLD 106 Gas and Arc Welding.....	4.0
WLD 113 Arc Welding II.....	4.0
WLD 115 Arc Welding III	4.0
WLD 142 Maintenance Welding.....	3.0

SUBTOTAL: 19.0

TOTAL CREDIT HOURS: 19.0

Advanced Welding Certificate

Advanced Welding Certificate provides the student with the skills necessary to perform tasks to the American Welding Society (AWS) standards in multiple processes. Through a combination of classroom and laboratory training, the student will learn the applications of Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW), and Gas Tungsten Arc Welding (GTAW), as well as the necessary safety, blueprint reading, and practical application skills needed for employment in today's welding industry.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 103 Print Reading I.....	1.0
WLD 105 Print Reading II	1.0
WLD 108 Gas Metal Arc Welding I.....	4.0
WLD 113 Arc Welding II.....	4.0
WLD 115 Arc Welding III	4.0
WLD 117 Specialized Arc Welding.....	4.0
WLD 132 Inert Gas Welding Ferrous.....	4.0
WLD 136 Advanced Inert Gas Welding.....	2.0
WLD 142 Maintenance Welding.....	3.0
WLD 154 Pipefitting and Welding	4.0
WLD 208 Advanced Pipe Welding	3.0
WLD 229 Inert Gas Welding Pipe II	2.0

SUBTOTAL: 19.0

TOTAL CREDIT HOURS: 19.0

MIG Welding Certificate

The MIG certificate prepares students for a specialty area in Welding. Students who complete the certificate are eligible to continue into the Welding diploma program.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 103 Print Reading I.....	1.0
WLD 108 Gas Metal Arc Weld I	4.0
WLD 109 Gas Metal Arc Weld II.....	3.0

SUBTOTAL: 10.0

TOTAL CREDIT HOURS: 10.0

STICK Welding Certificate

The Stick certificate prepares students for a specialty area in Welding. Students who complete the certificate are eligible to continue into the Welding diploma program.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 105 Print Reading II	1.0
WLD 113 Arc Welding II.....	4.0
WLD 115 Arc Welding III	4.0

SUBTOTAL: 11.0

TOTAL CREDIT HOURS: 11.0

TIG Welding Certificate

The TIG certificate prepares students for a specialty area in Welding. Students who complete the certificate are eligible to continue into the Welding diploma program.

REQUIRED COURSE INFORMATION

COURSES	CREDIT HOURS
WLD 102 Introduction to Welding	2.0
WLD 103 Print Reading I.....	1.0
WLD 132 Inert Gas Welding Ferrous.....	4.0
WLD 136 Advanced Inert Gas Welding.....	2.0

SUBTOTAL: 9.0

TOTAL CREDIT HOURS: 9.0

>>> Visit www.ptc.edu/welding to learn more.