

DEGREES & CERTIFICATES

WELDING TECHNOLOGY ASSOCIATE OF SCIENCE (AS)

About the Program

The Associate of Science in Welding Technology prepares students for the welding and manufacturing industry. Welding touches every aspect of our modern life from the shoes we wear to the food we eat. The Welder or Welding Technician is concerned with all of the activities related to the manufacturing, production, performance, and maintenance of welded products. Interest is primarily in the manufactured or fabricated product, including process selection, power sources, base and filler materials, manufacturing methods, hands-on skills training, inspection, quality control, performance evaluation, and equipment service. The broad range of welded products with which welders and welding technicians deal includes structures, such as bridges, buildings, utility equipment, wind turbines, and communication towers; pressure vessels and heat exchangers, such as nuclear systems, boilers, solar thermal systems, oil and natural gas exploration, chemical processing equipment, storage vessels, and transmission and distribution piping; transportation vehicles for water, land, air, and space travel; and production and processing machines of all types.

Program Goals and Objectives

The Associate of Science in Welding Technology degree is designed to prepare students for a career in the welding and manufacturing industry. Students will learn the skills necessary to get a job as a Welder or Welding Technician.

Career Opportunities

The welding industry offers a wide variety of dynamic and challenging careers. Underwater welders are needed on offshore oil rigs. Welder-operators use automated welding systems to manufacture cars. Structural welders help to construct skyscrapers and bridges. In addition to welders, other professionals such as certified inspectors and engineers rely on welding to do their jobs. Without these professionals, our country would fall apart. The demand for skilled welding professionals is constantly growing. By 2025, our nation's workforce will need over 400,000 welders to satisfy the demands of several industries.

Program Outcomes

- Upon completion of the AS in Welding Technology, students are able to operate safely in a welding workplace environment.
- Upon completion of the AS in Welding Technology, students have the skills necessary to pass an American Welding Society standard welding certification test.

Required Core: (25 units)

WLDT 55 Print Reading for Industry.....	2
WLDT 61A Beginning SMAW and FCAW Theory.....	1
WLDT 61AL Beginning SMAW and FCAW Skills Lab.....	2
WLDT 61B Advanced SMAW and FCAW Theory.....	1
WLDT 61BL Advanced SMAW and FCAW Skills Lab.....	2
WLDT 62A Beginning GTAW and GMAW Theory.....	1
WLDT 62AL Beginning GTAW and GMAW Skills Lab.....	2
WLDT 62B Advanced GTAW and GMAW Theory.....	1
WLDT 62BL Advanced GTAW and GMAW Skills Lab.....	2
WLDT 63 Welding Layout and Fitting.....	2
WLDT 66 Welding Inspection and Testing.....	2
WLDT 69A Beginning Pipe Welding.....	3
WLDT 69B Advanced Pipe Welding.....	3
WLDT 73 Welding Workplace Safety.....	1

LIST A: Select from Below (12 units)

WLDT 1 Welding Camp.....	1
WLDT 67A Welding Skills Lab.....	2
WLDT 67B Advanced Welding Skills Lab.....	2
WLDT 68 Certification Preparation.....	2
WLDT 70 Introduction to Welding.....	2
WLDT 72A Beginning Laser Welding.....	2
WLDT 72B Intermediate Laser Welding.....	
WLDT 72C Advanced Laser Welding.....	
WLDT 80 The Welding Business.....	

LIST B: Select from Below (7 units)

MATH 50 Intermediate Algebra for SLAM.....	
MATH 53A Technical Intermediate Algebra for Welding A.....	
MATH 53B Technical Intermediate Algebra for Welding B.....	
MATH 72A Technical Elementary Algebra A.....	
MATH 72B Technical Elementary Algebra B.....	
MATH 72C Technical Elementary Algebra C.....	
MATH 72D Technical Elementary Algebra D.....	

Total Units in the Major.....44

Program-Based General Education: Select One (3 units)

ASL 1A American Sign Language I.....	3
BUSN 48 Human Relations in Organizations.....	3
BUSN 52 Business Communications.....	3
CIS 50 Introduction to Computing Information Technology.....	3
GDDM 3 History of Graphic Design.....	3
WLDT 71 Welding for the Arts.....	3

General Education and Electives..... 13