

## Career and Technical Education

### Associate of Applied Science – Welding Technology

#### Student Learning Outcomes

Graduates of the Welding Technology Associate of Applied Science Degree Program will have the knowledge and skills to:

- Make satisfactory welds in all positions using the following welding processes:
  - Shielded Metal Arc Welding (SMAW)
  - Gas Metal Arc Welding (GMAW)
  - Flux Cored Arc Welding (FCAW)
  - Gas Tungsten Arc Welding (GTAW)
- Make satisfactory cuts with the following processes:
  - Oxygen Fuel Cutting (OFC)
  - Plasma Arc Cutting (PAC)
  - Air Carbon Arc Cutting (ACC)
- Interpret welding blueprints and welding symbols.
- Perform pipe layouts.
- Utilize basic welding metallurgy.
- Perform safely in the work environment, meeting and obeying all workplace safety requirements.

**Formal admission to this program is required. Refer to page 86 for an outline of admission standards.** Welding is a necessary skill for today’s technicians and field mechanics as well as for those who want to develop a career in metal fabrication. The College’s Welding Department has become the center for welding technologies in North-eastern Nevada. With highly qualified instructors, GBC provides the opportunity to learn the standard methods of Shielded Metal Arc Welding (SMAW), Flux Cored Arc Welding (FCAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW), as well as Oxyfuel, Air Carbon Arc, and Plasma Arc Cutting. For more information, call 775.753.2175.

Great Basin College has Certified Welding Inspectors on staff so students can earn an AWS certification.

General Education Requirements	Credits
English/Communications .....	6
Mathematics .....	3
MATH 116, 120, 126 or higher or STAT 152	
Science—PHYS 107 (recommended) .....	3
Social Science—PSC 101 .....	3
Human Relations	
BUS 110 (recommended) .....	3
Humanities or Fine Arts .....	3
ART 107 or MUS 125 (recommended)	
Technology—WELD 110 (required) .....	(3)

List of courses fulfilling general education requirements is on page 81.

Program Requirements		Credits
WELD 105	Drawing and Weld Symbol Interpretation.....	3
WELD 110	Basic Arc Welding Principles and Practices** .....	5.5
WELD 150	Metallurgy Fundamentals for Welding ..	3
WELD 160	Welding Design/Layout and Pipefitting.....	5.5
WELD 210	Advanced Welding Principles and Practices .....	5.5
WELD 220	Gas Metal (GMAW) and Flux Cored Arc Welding (FCAW) .....	11
WELD 240	Gas Tungsten Arc Welding (GTAW) .....	7
WELD 260	Pipe Welding.....	8

**SUGGESTED COURSE SEQUENCE  
AAS—Welding Technology**

FALL—1st Semester	Credits
ENGLISH*	3
BUS 110	3
MATH 116, 120, 126 or higher	3
HUMANITIES/FINE ARTS*	3
PSC 101	3
WELD 105	3
WELD 110	5.5
WELD 210	5.5
WELD 260	8
<b>TOTAL</b>	<b>37</b>

  

SPRING—2nd Semester	Credits
ENGLISH*	3
SCIENCE*	3
WELD 150	3
WELD 160	5.5
WELD 220	11
WELD 240	7
<b>TOTAL</b>	<b>32</b>

**Refer to page 81. Minimum Credits: 69.5  
\*Choose with an advisor.**

\*\*Students who have credit for WELD 136 from previous course enrollment or CTE College Credit (see page 23), contact a GBC advisor. Course requirement for WELD 110: 5.5 units of WELD 110 or 2.5 units of WELD 110 and 3 units of WELD 136.

After the AAS in Welding Technology, the next step could be the Bachelor of Applied Science in Management and Supervision Emphasis. See page 105.