

## Associate of Applied Science Requirements Summary

	Credits
GBC Orientation..... INT 100	0.5
English/Communications..... ENG 107, 108, 101, 102	6
Mathematics..... MATH 116, 120, 126 or higher (Includes STAT 152)	3
Science..... At least 3 credits from: ANTH 102, ANSC 100, AST 101, BIOL 100, BIOL 190, CHEM 100, 121, ENV 100, GEOG 103, GEOL 101, 132, PHYS 100, 107, 151, NRES 150, NUTR 121	3
Social Science..... 3 credits: PSC 101 (U.S. and Nevada Constitutions requirement) or substitute HIST 101 and 102  3 credits: BUS 110B, HMS 200, MGT 283, PSY 208 (Human Relations)	6
Humanities and Fine Arts..... 3 credits from: ART 100, 101, 160, 170, 260, 261, ENG 203, 223, FIS 100, FREN 111, 112, HIST 105, 106, HUM 101, MUS 101, 121, 125, PHIL 102, 129; SPAN 111, 112, 211, THTR 100, 105	3
Technology..... 3 credits from: EDU 214, DT 101B, EIT 233, ELM 120, GIS 109, GRC 119, IS 101, IT 210B, WELD 110B, 211, 221	3
Electives A minimum of 60 total credits is required. Most programs require more. See an adviser to select appropriate courses.	

## Certificate of Achievement

The one-year Certificate Program is an abbreviated form of the two-year Associate of Applied Science degree. Most of the Certificate Program requirements include six semester hours of English/Communications (minimum requirement is three credits by Board of Regents policy), a course in human relations, demonstration of computation skills, and a 2.0 minimum grade-point average. All other requirements are noted in specific program maps.

If you complete a certificate of achievement, you may also choose to complete an AAS. The following General Education Requirements (see also page 57) must be fulfilled.

### Applied Science Certificate of Achievement Requirements Summary

	Credits
GBC Orientation (recommended).....	(0.5)
English/Communications.....	3-6
Mathematics..... TA 108B, BUS 110B (if taken as a 3-credit course) MATH 116, 120, 126 or higher	3
Minimum Certificate Requirements..... (See program for specific requirements)	23
Human Relations.....	1-3

### Suggested Course Sequence

The course sequence outlined for each degree is simply a suggestion that may not be appropriate for all students. For example, some students will have to take from one to four developmental courses before they are prepared to take some of the college-level courses. Many students will need to take fewer courses each semester due to other obligations in their lives. Full-time status is 12 credits per semester, but many programs provide students with the flexibility of taking fewer credits (in order to have a successful academic experience). Meeting with an adviser is crucial to establishing the best course sequence for each student.

# Welding Technology

## Certificate of Achievement

### Student Learning Outcomes

Graduates of the Welding Technology Certificate of Achievement 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.

Formal admission to this program is required. Refer to page 97 for an outline of admission standards.

<b>Certificate of Achievement Requirements</b>			<b>Credits</b>
<input type="checkbox"/>	INT 100	GBC Orientation.....	0.5
<input type="checkbox"/>	WELD 105B	Drawing and Weld Symbol Interpretation. ....	3
<input type="checkbox"/>	WELD 110B*	Basic Arc Welding Principles and Practices.....	5.5
<input type="checkbox"/>	WELD 150B	Metallurgy Fundamentals for Welding. ....	3
<input type="checkbox"/>	WELD 160B	Welding Design/Layout and Pipefitting.....	5.5
<input type="checkbox"/>	WELD 210B	Advanced Welding Principles and Practices.....	5.5
<input type="checkbox"/>	WELD 220B	Gas Metal (GMAW) and Flux Cored Arc Welding (FCAW).....	11
<input type="checkbox"/>	WELD 224B	Welding Projects. ....	4
<input type="checkbox"/>	WELD 240B	Gas Tungsten Arc Welding (GTAW).....	8
<input type="checkbox"/>	WELD 260B	Pipe Welding. ....	8

#### Communications

- English-Communications..... 3  
 Determined by placement testing.  
 ENG 107, ENG 108, COM 101, or ENG 101.

#### Computation

- TA 108B Applied Math for Technicians.. .... 3  
 (or determined by placement test)

#### Human Relations

Choose one of the following:

- BUS 110B Human Relations for Employment, or  
 PSY 208 Psychology of Human Relations, or  
 MGT 283 Introduction to Human Resource Management. .... 1-3

### SUGGESTED COURSE SEQUENCE\*\*\*

#### Certificate of Achievement

#### Welding Technology

<b>FALL—1st Semester</b>	<b>Credits</b>	
INT 100	0.5	<input checked="" type="checkbox"/>
ENGLISH**	3	<input type="checkbox"/>
COMPUTATION**	3	<input type="checkbox"/>
HUMAN RELATIONS*	1-3	<input type="checkbox"/>
WELD 105B	3	<input type="checkbox"/>
WELD 110B	5.5	<input type="checkbox"/>
WELD 210B	5.5	<input type="checkbox"/>
WELD 260B	8	<input type="checkbox"/>
<b>TOTAL</b>	<b>29.5-31.5</b>	
<b>SPRING—2nd Semester</b>	<b>Credits</b>	
WELD 150B	3	<input type="checkbox"/>
WELD 160B	5.5	<input type="checkbox"/>
WELD 220B	11	<input type="checkbox"/>
WELD 224B	4	<input type="checkbox"/>
WELD 240B	8	<input type="checkbox"/>
<b>TOTAL</b>	<b>31.5</b>	

\*Select from page 57. \*\*Select with adviser.  
 \*\*\*See page 94.

**Minimum Credits: 61**

\*Students who have Tech Prep credits should contact their GBC adviser.