

## **Welding**

### **Associate in Occupational Technology Degree (AOT)**

#### **At a Glance**

The Welding program at Central Alabama Community College provides students with the knowledge and skills in the heating and melting of metals. Students experience rigorous hands on training with cutting, forming, and the permanent jointing of metal products used in construction of bridges, buildings, and ships some of which are done in conjunction with computers and robots. Students often work on assembly lines, steel mills, railroad shops and highway departments.

<b>General Education &amp; Electives</b>		<b>CREDITS</b>
CIS 146	Microcomputer Applications .....	3
ENG 131	Applied Writing <b>OR</b> ENG 101 English Composition I.....	3
MTH 100	Intermediate College Algebra.....	3
SPH 106	Fundamentals of Oral Communication.....	3
Humanities and Fine Arts Elective* .....		3
Social and Behavioral Science Elective*.....		3
<b>Total General Education Credit Hours .....</b>		<b>18</b>

*\*Refer to general education section of catalog for electives. NOTE: Introductory foreign language courses cannot be utilized as the only Humanities and Fine Arts elective.*

<b>Welding Technology Major</b>		<b>CREDITS</b>
WDT 108	SMAW Fillet/OFC.....	3
WDT 109	SMAW Fillet/PAC/CAC .....	3
WDT 110	Industrial Blueprint Reading.....	3
WDT 119	Gas Metal Arc/Flux Cored Arc Welding .....	3
WDT 120	Shielded Metal Arc Welding Groove .....	3
WDT 122	SMAW Fillet/OFC Lab.....	3
WDT 123	SMAW Fillet/PAC/CAC Lab .....	3
WDT 124	Gas Metal Arc/Flux Cored Arc Welding Lab.....	3
WDT 125	Shielded Metal Arc Welding Groove Lab .....	3
WKO 110	Orientation/NCCER Core .....	3
WDT Electives (Choose ONE combination from below) .....		6
WDT 115/155	GTAW Carbon Pipe/Lab <b>OR</b>	
WDT 217/257	SMAW Carbon Pipe/Lab <b>OR</b>	
WDT 228/268	GAS Tungsten Arc Welding/Lab	
<b>Total Welding Major Credit Hours .....</b>		<b>36</b>

#### **Welding Technology Minor (Choose ONE option below)** **CREDITS**

##### **Minor Option 1 - Drafting**

DDT 104	Basic Computer Aided Drafting and Design .....	3
DDT 111	Fundamentals of Drafting and Design Technology .....	3
DDT 144	Basic 3-D Modeling.....	3
DDT 127	Intermediate Computer Aided Drafting and Design.....	3

**Total Drafting Minor Option Credit Hours .....12**

**Minor Option 2 - Machining**

MSP 104	Basic Machining Calculations .....	2
MSP 105	Lathes .....	3
MSP 107	Milling Machines .....	3
MSP 121	Basic Blueprint Reading for Machinists .....	2
MSP 125	Introduction to Machining Technology .....	3
	<b>Total Machining Minor Option Credit Hours .....</b>	<b>13</b>

**Total Credit Hours..... 66-67**

**Welding**

**Certificate (CER)**

While pursuing the Welding AOT degree and upon successful completion of the courses identified below, the stackable Welding Certificate will be awarded to students.

	<b>CREDITS</b>
CIS 146	Microcomputer Applications .....3
ENG 131	Applied Writing <b>OR</b> ENG 101 English Composition I.....3
MTH 116	Mathematical Applications or Higher Math .....3
SPH 106	Fundamentals of Oral Communication.....3
	<i>*Refer to general education section of catalog for electives. NOTE: Introductory foreign language courses cannot be utilized as the only Humanities and Fine Arts elective.</i>
WDT 108	SMAW Fillet/OFC.....3
WDT 109	SMAW Fillet/PAC/CAC .....3
WDT 110	Industrial Blueprint Reading.....3
WDT 119	Gas Metal Arc/Flux Cored Arc Welding Theory .....3
WDT 120	Shielded Metal Arc Welding Groove .....3
WDT 122	SMAW Fillet/OFC Lab.....3
WDT 123	SMAW Fillet/PAC/CAC Lab .....3
WDT 124	Gas Metal Arc/Flux Cored Arc Welding Lab.....3
WDT 125	Shielded Metal Arc Welding Groove Lab .....3
WKO 110	Orientation/NCCER Core .....3
WDT Electives (Choose ONE combination from below) .....	6
	WDT 115/155 GTAW Carbon Pipe/Lab <b>OR</b>
	WDT 217/257 SMAW Carbon Pipe/Lab <b>OR</b>
	WDT 228/268 GAS Tungsten Arc Welding/Lab
<b>Total Credit Hours.....</b>	<b>48</b>

**Basic Welding**

**Short-Term Certificate (STC)**

While pursuing the Welding AOT degree and upon successful completion of the courses identified below, the stackable Basic Welding Short-Term Certificate will be awarded to students.

WDT 108	SMAW Fillet/OFC.....	3
WDT 109	SMAW Fillet/PAC/CAC .....	3
WDT 110	Industrial Blueprint Reading.....	3
WDT 122	SMAW Fillet/OFC Lab.....	3
WDT 123	SMAW Fillet/PAC/CAC Lab .....	3
<b>Total Credit Hours.....</b>		<b>15</b>

**Advanced Welding**

**Short-Term Certificate (STC)**

While pursuing the Welding AOT degree and upon successful completion of the courses identified below, the stackable Basic Welding Short-Term Certificate will be awarded to students.

WDT 119	Gas Metal Arc/Flux Cored Arc Welding Theory .....	3
WDT 120	Shielded Metal Arc Welding Groove .....	3
WDT 124	Gas Metal Arc/Flux Cored Arc Welding Lab.....	3
WDT 125	Shielded Metal Arc Welding Groove Lab .....	3
<b>Total Credit Hours.....</b>		<b>12</b>