

## Welding Technology: Flux Cored Arc Welding(FCAW)

#REF!



**CIP CODE 48.0508**

Students will learn theory and principles of the Flux Cored Arc Welding (FCAW) process. Students will learn FCAW operations with gas-shielded wires (dual shield) and self-shielded wires, and will be prepared to take industry welding tests per AWS D1.1 Structural Steel for FCAW Welder Qualification.

OUTCOMES	Delivery Method	OE/OE (min 10 - max 28)
MATC Program Certificate: Flux Cored Arc Welding	Enrollment Availability	Adults Only
AWSD1.1 3G Structural Certificate - FCAW	Financial Aid Available	No
	VA Qualified	Yes

### PREREQUISITES

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All students must meet with Welding Instructor

SECTION	LOCATION	ROOM	START DATE	END DATE	START TIME	END TIME	DAYS	INSTRUCTOR	NOTES
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	7:30 AM	10:30	M-F	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	7:30 AM	10:30	M.W.F	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	7:30 AM	10:30	T.TH	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	11:30 AM	2:30 PM	M-F	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	11:30 AM	2:30 PM	M.W.F	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	11:30 AM	2:30 PM	T.TH	Josh McCrary	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	2:45 PM	5:45 PM	M-F	Josh McCrary, Reed Esplin	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	2:45 PM	5:45 PM	M.W.F	Josh McCrary, Reed Esplin	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	2:45 PM	5:45 PM	T.TH	Josh McCrary, Reed Esplin	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	6:00 PM	9:00 PM	M-TH	Josh McCrary, Jared Massic, Reed Esplin, Dustin Taylor	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	6:00 PM	9:00 PM	M.W	Josh McCrary, Jared Massic, Reed Esplin, Dustin Taylor	
Open Entry/ Open Exit	Orem	108	Open Entry	Open Exit	6:00 PM	9:00 PM	T.TH	Josh McCrary, Jared Massic, Reed Esplin, Dustin Taylor	
<b>*Summer Schedule</b>	Orem	108	6/1/2016	8/8/2016	All Sections		M-TH		

TUITION /FEES	COST	NOTES
Registration Fee	#REF!	#REF!
Facilities Fee	#REF!	
Program Fees	\$250.00	#REF!
Tuition	#REF!	
<b>Total Tuition and Fees</b>	<b>#REF!</b>	<b>#REF!</b>

REQUIRED PROGRAM MATERIALS	COST	NOTES
Textbooks & Resources	\$40.00	Student Binder & Hobart Institute of Welding Technology – Welding Guide
AWS Online Course Subscription	\$163.00	
Welding Equipment	\$42.00	
Welding Helmet	\$116.00	
Protective Clothing	\$46.00	
Exam Materials for Industry Certifications	\$20.00	
Steel Toed Boots	\$30.00	

<b>Total</b>	<b>\$457.00</b>					
<b>OPTIONAL PROGRAM MATERIALS</b>	<b>COST</b>	<b>NOTES</b>				
Additional Test Coupons	\$10.00	3/8" Plate Coupons. per each set				
Additional Test Coupons	\$20.00	1" Plate Coupons, per each set				
<b>Total</b>	<b>\$30.00</b>					
<b>PROGRAM COMPONENTS</b>		<b>LAB</b>	<b>LECTURE</b>	<b>HYBRID</b>	<b>TOTAL</b>	<b>NOTES</b>
<b>FCAW I Flux Cored Arc Welding:</b>						
Perform safety inspections of FCAW		0	0	3	3	
Makes minor external repairs to FCAW equipment and accessories		1	0	2	3	
Sets up for FCAW-G/GM operations on carbon steel		1	0	2	3	
Operate FCAW-G/GM (4)		2	0	1	3	
Dual shield 1F, 2F, 3F & 4F Tee Joints 1/4" PI .045		11	0	1	12	
Dual shield 1F, 2F, 3F & 4F Lap Joints 1/4" PI .045		11	0	1	12	
Dual shield 1G & 2G Butt Joints 1/4" PI .045		5	0	1	6	
Dual shield 3G & 4G Butt Joints 1/4" PI .045		8	0	1	9	
Dual shield 1F, 3F & 4F Tee Joints .062 3/8" PI.		8	0	1	9	
Dual shield 2F Tee Joint 18" multipass- no restarts .062 1/2" PI		5	0	1	6	
Dual shield 1F, 2F 3F & 4F Lap Joints .062 3/8" PI.		11	0	1	12	
Dual shield 2G & 3G Butt Joints .062 3/8" PI.		5	0	1	6	
Dual shield 1G Vee Butt Joint 18" .062 1/2" PI		8	0	1	9	
Dual shield 4G Bevel Butt Joint .062 3/8" PI		8	0	1	9	
Innershield 1F Tee & 4F Lap Joints 1/4" pl. .045		5	0	1	6	
Innershield 3G Butt Joint 1/4" pl. .045		2	0	1	3	
Innershield 3F Tee & 1F Lap Joints 3/8" to 1/2" pl. .045		5	0	1	6	
Innershield 3G Bevel Butt Joint 3/8" to 1/2" pl. .045		2	0	1	3	
Passes FCAW welder performance qualification test on carbon steel per drawing AWS EDU-1		10	0	5	15	
Passes practical knowledge written exam for the FCAW process		0	0	6	6	
Pass welder performance qualification test (3G limited thickness test plates) on carbon steel		10	0	4	14	
<b>Total</b>		<b>118</b>	<b>0</b>	<b>37</b>	<b>155</b>	Average 2.6 months or 52 days excluding wknds and holidays
<b>***** Additional Information *****</b>						
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*Summer Schedule: Classes will be held at normal times. During the summer they will be M-TH. There will be NO class on Fridays						