



WELDING TECHNOLOGY (48.0508)

DIVISION: Technical Studies
DEPARTMENT: Welding

DIPLOMA/CERTIFICATE OPTIONS

TCA – WELDER HELPER
 TCA – THERMAL CUTTER
 TCA – ARC CUTTER
 TCA – ARC WELDER SKILLS UPGRADE
 TCA – TACK WELDER/FITTER HELPER
 TCA – PRODUCTION LINE WELDER
 CTS – PRODUCTION LINE WELDER II
 CTS – ARC WELDER-GTAW
 CTS – ARC WELDER-GMAW
 CTS – ARC WELDER-FCAW
 CTS – ARC WELDER-SMAW
 TD – WELDING

CURRICULUM

Course No.	Course Title	Lecture	Lab	Total Credit Hrs.	Total Clock Hrs.
WELD 1110	Occupational Orientation & Safety	2	1	3	60
WELD 1120	Basic Blueprint, Metallurgy & Weld Symbols	2	1	3	75
WELD 1130	Welding Inspection & Testing	1	1	2	60
WELD 1140	Electrical Fundamentals	1	1	2	45
WELD 1210	Oxyfuel Systems	1	1	2	60
WELD 1310	Cutting Processes – CAC/PAC	1	1	2	45
WELD 1410	SMAW Basic Beads	1	1	2	60
WELD 1411	SMAW Fillet Weld	0	3	3	105
WELD 1412	SMAW V-Groove BU/Gouge	0	3	3	105
WELD 2110	FCAW Basic Fillet Welds	1	2	3	105
WELD 2111	FCAW Groove Welds	0	3	3	105
WELD 2210	GTAW Basic Multi-Joint	1	2	3	105
WELD 2230	GTAW Aluminum Multi-Joint	1	2	3	105
WELD 2310	GMAW Basic Fillet Weld	1	2	3	105
WELD 2311	GMAW Groove Weld	0	3	3	105
CPTR 1000	Introduction to Computers	1	1	2	45
JOBS 2450	Job Seeking Skills	2	0	2	30
	PROGRAM CORE TOTALS			44	1320
WELD XXXX	Required Electives (minimum credits)			16	480
	TD – WELDING			60	1800
	Required Elective Options:				
WELD 1420	SMAW V-Groove Open	1	3	4	120
WELD 1510	SMAW Pipe 2G	1	3	4	120
WELD 1511	SMAW Pipe 5G	0	4	4	120

WELD 1512	SMAW Pipe 6G	0	4	4	120
WELD 1610	SMAW Stainless Steel (SMAW-SS) Multi-Joint	1	3	4	120
WELD 1620	SMAW Stainless Steel (SMAW-SS) 5G Pipe	1	3	4	120
WELD 1621	SMAW Stainless Steel (SMAW-SS) 2G Pipe	0	4	4	120
WELD 1622	SMAW Stainless Steel (SMAW-SS) 6G Pipe	0	4	4	120
WELD 2112	FCAW Pipe 5G	1	3	4	120
WELD 2113	FCAW Pipe 2G	0	4	4	120
WELD 2114	FCAW Pipe 6G	0	4	4	120
WELD 2220	GTAW Pipe 5G	1	3	4	120
WELD 2221	GTAW Pipe 2G	0	4	4	120
WELD 2222	GTAW Pipe 6G	0	4	4	120
WELD 2240	GTAW Low Alloy (STAW-LA) 5G Pipe	1	3	4	120
WELD 2241	GTAW Low Alloy (STAW-LA) 2G Pipe	0	4	4	120
WELD 2242	GTAW Low Alloy (STAW-LA) 6G Pipe	0	4	4	120
WELD 2250	GTAW Stainless Steel (GTAW-SS) 5G Pipe	1	3	4	120
WELD 2251	GTAW Stainless Steel (GTAW-SS) 2G Pipe	0	4	4	120
WELD 2252	GTAW Stainless Steel (GTAW-SS) 6G Pipe	0	4	4	120
WELD 2260	GTAW Aluminum (GTAW-AL) 5G Pipe	1	3	4	120
WELD 2261	GTAW Aluminum (GTAW-AL) 2G Pipe	0	4	4	120
WELD 2262	GTAW Aluminum (GTAW-AL) 6G Pipe	0	4	4	120
WELD 2320	GMAW Pipe 2G	1	3	4	120
WELD 2321	GMAW Pipe 5G	0	4	4	120
WELD 2322	GMAW Pipe 6G	0	4	4	120
WELD 2330	GMAW Aluminum Multi-Joint	1	3	4	120
WELD 2340	GMAW Aluminum (GMAW-AL) 5G Pipe	1	3	4	120
WELD 2341	GMAW Aluminum (GMAW-AL) 2G Pipe	0	4	4	120
WELD 2342	GMAW Aluminum (GMAW-AL) 6G Pipe	0	4	4	120

CERTIFICATE EXIT POINTS:

Course No.	Course Title	Total Credit Hrs.
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
	TCA – WELDER HELPER	5
WELD 1110	Occupational Orientation & Safety	3
WELD 1210	Oxyfuel Systems	2
	TCA – THERMAL CUTTER	5
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1310	Cutting Processes – CAC/PAC	2
	TCA – ARC CUTTER	7
WELD 1110	Occupational Orientation & Safety	3
WELD 2883	Basic Skills Evaluation	1
	OR	
WELD 2885	Advanced Skills Evaluation	1
	Minimum of 4 credits from Required Electives	4
	TCA – ARC WELDER SKILLS UPGRADE	8
WELD 1110	Occupational Orientation & Safety	3
WELD 1210	Oxyfuel Systems	2

WELD 1120	Basic Blueprint, Metallurgy & Weld Symbols	3
WELD 1410	SMAW Basic Beads	2
	TCA – TACK WELDER/FITTER HELPER	10
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1410	SMAW Basic Beads	2
	PLUS ONE OF THE FOLLOWING COURSES:	
WELD 1411	SMAW Fillet Weld	3
WELD 2110	FCAW Basic Fillet Welds	3
WELD 2210	GTAW Basic Multi-Joint	3
WELD 2310	GMAW Basic Fillet Weld	3
	TCA – PRODUCTION LINE WELDER	12
Course No.	Course Title	Total Credit Hrs.
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1410	SMAW Basic Beads	2
WELD 1310	Cutting Processes – CAC/PAC	2
	Elective	2
	PLUS 4 COURSES FROM THE FOLLOWING:	12
WELD 1411	SMAW Fillet Weld	3
WELD 1412	SMAW V-Groove BU/Gouge	3
WELD 2110	FCAW Basic Fillet Welds	3
WELD 2111	FCAW Groove Welds	3
WELD 2210	GTAW Basic Multi-Joint	3
WELD 2230	GTAW Aluminum Multi-Joint	3
WELD 2310	GMAW Basic Fillet Weld	3
WELD 2311	GMAW Groove Weld	3
	CTS – PRODUCTION LINE WELDER II	25
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1310	Cutting Processes – CAC/PAC	2
WELD 2210	GTAW Basic Multi-Joint	3
	PLUS 3 COURSES FROM REQUIRED GTAW ELECTIVES	12
	CTS – ARC WELDER-GTAW	24
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1310	Cutting Processes – CAC/PAC	2
WELD 2310	GMAW Basic Fillet Weld	3
WELD 2311	GMAW Groove Weld	3
	PLUS 3 COURSES FROM REQUIRED GMAW ELECTIVES	12
	CTS – ARC WELDER-GMAW	27
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1310	Cutting Processes – CAC/PAC	2

WELD 2110	FCAW Basic Fillet Welds	3
WELD 2111	FCAW Groove Welds	3
	PLUS 3 COURSES FROM REQUIRED FCAW ELECTIVES	12
	CTS – ARC WELDER-FCAW	27
WELD 1110	Occupational Orientation & Safety	3
WELD 1140	Electrical Fundamentals	2
WELD 1210	Oxyfuel Systems	2
WELD 1310	Cutting Processes – CAC/PAC	2
WELD 1410	SMAW Basic Beads	2
WELD 1411	SMAW Fillet Weld	3
WELD 1412	SMAW V-Groove BU/Gouge	3
WELD 1420	SMAW V-Groove Open	4
	PLUS 3 COURSES FROM REQUIRED SMAW ELECTIVES	12
	CTS – ARC WELDER-SMAW	33