



WELDING PROGRAM GUIDE

FIRST SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
Occupational Orientation & Welding Safety (includes NCCER Core)	WELD	1005	5
Applied Math	WELD	1000	2
Base Metal Preparation, Joint Fit Up & Alignment	WELD	1401	1
Detailed Drawings, Welding Symbols	WELD	1121	1
Oxyfuel Cutting	WELD	1211	1
Shielded Metal Arc Electrodes, SMAW Equipment & Set Up	WELD	1405	1
SMAW Beads & Fillet Welds	WELD	1415	5
SEMESTER CREDIT HOURS			TD 16

SECOND SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
Plasma Arc Cutting and Air Carbon Arc Cutting & Gouging	WELD	1321	1
SMAW Open V Groove Welds	WELD	1425	5
Welding Inspection and Weld Quality	WELD	1130	2
Physical Char of Metals, Pre-Heating & Post Heating of Metals	WELD	1161	1
SMAW Open Root Pipe Welds	WELD	1512	4
SEMESTER CREDIT HOURS			TD 13
CTS- Entry Welder (SMAW) (29)			

THIRD SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
GMAW and FCAW Equipment and Filler Metals	WELD	1171	1
GMAW & FCAW Plate	WELD	2155	4
GMAW Pipe	WELD	2374	4
FCAW Pipe	WELD	2154	4
SEMESTER CREDIT HOURS			TD 13

FOURTH SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
GTAW Equipment and Filler Metals & GTAW Plate	WELD	2104	4
GTAW Carbon Steel Pipe	WELD	2255	5
GTAW Low Alloy & Stainless Steel Pipe	WELD	2264	4
SEMESTER CREDIT HOURS			TD 13
CTS- GMAW, FCAW & GTAW, Welding Process (26)			
CTS – Entry Welder, SMAW			29
CTS – GMAW, FCAW, GTAW, Welding Process			26
TD – Welding			55



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CTS WELDING CERTIFICATION PATHWAYS

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
Occupational Orientation & Welding Safety (includes NCCER Core)	WELD	1005	5
Applied Math	WELD	1000	2
Base Metal Preparation, Joint Fit Up & Alignment	WELD	1401	1
Detailed Drawings, Welding Symbols	WELD	1121	1
Oxyfuel Cutting	WELD	1211	1
Shielded Metal Arc Electrodes, SMAW Equipment & Set Up	WELD	1405	1
SMAW Beads & Fillet Welds	WELD	1415	5
Plasma Arc Cutting and Air Carbon Arc Cutting & Gouging	WELD	1321	1
SMAW Open V Groove Welds	WELD	1425	5
Welding Inspection and Weld Quality	WELD	1130	2
Physical Char of Metals, Pre-Heating & Post Heating of Metals	WELD	1161	1
SMAW Open Root Pipe Welds	WELD	1512	4
CTS – Entry Welder, SMAW (29)			

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS
GMAW and FCAW Equipment and Filler Metals	WELD	1171	1
GMAW & FCAW Plate	WELD	2155	4
GMAW Pipe	WELD	2374	4
FCAW Pipe	WELD	2154	4
GTAW Equipment and Filler Metals & GTAW Plate	WELD	2104	4
GTAW Carbon Steel Pipe	WELD	2255	5
GTAW Low Alloy & Stainless Steel Pipe	WELD	2264	4
CTS – GMAW, FCAW, GTAW, Welding Process (26)			