



## CATALOG YEAR: 2023-2024 TECHNICAL DIPLOMA IN WELDING

Students are encouraged to utilize Degree Works (accessible via LoLA) to track their academic progress. All courses must be passed with a "C" or better.

### FIRST SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS	Industry-Based Credentials
Occupational Orientation & Welding Safety	WELD	1005	3	NCCER Core, NCCER Welding Safety
Introduction to Welding Fundamentals	WELD	1125	3	NCCER Base Metal Preparation, NCCER Joint Fit Up & Alignment, NCCER Detailed Drawings, NCCER Welding Symbols
SMAW Beads & Fillet Welds	WELD	1415	3	NCCER SMAW Beads & Fillet Welds
Introduction to Cutting Processes	WELD	1200	2	NCCER Oxyfuel Cutting, Plasma Arc Cutting, Air Carbon Cutting and Gouging
SMAW Open V Groove Welds	WELD	1425	3	NCCER SMAW Open Groove Welds
Shielded Metal Arc Electrodes, SMAW Equipment and Set Up	WELD	1405	1	NCCER Shielded Metal Arc Electrodes, SMAW Equipment and Set Up
<b>SEMESTER CREDIT HOURS</b>			<b>15</b>	

### SECOND SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS	Industry-Based Credentials
Physical Characteristics of Metals, Pre-Heating & Post Heating of Metals	WELD	1161	1	NCCER Physical Characteristics of Metals, Pre-Heating and Post-Heating of Metals
Welding Inspection and Weld Quality	WELD	1130	2	NCCER Weld Quality
SMAW Pipe 2G	WELD	1430	3	SMAW Open Root Pipe Welds
SMAW Pipe 5G	WELD	1440	3	
SMAW Pipe 6G	WELD	1450	3	
Applied Math	WELD	1000	2	
<b>SEMESTER CREDIT HOURS</b>			<b>14</b>	

**Upon completion of the courses above, students are eligible to earn the CTS- Entry Welder (29 credit hours) and the NCCER Level I Certification.**

### THIRD SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS	Industry-Based Credentials
GMAW and FCAW Plate	WELD	2155	3	NCCER GMAW Plate, NCCER FCAW Plate, NCCER GMAW Equipment and Filler Metals, FCAW Equipment and Filler Metals
GMAW and FCAW Pipe 2G	WELD	2160	3	NCCER GMAW Pipe, NCCER FCAW Pipe
GMAW and FCAW Pipe 5G	WELD	2170	3	
GMAW and FCAW Pipe 6G	WELD	2180	3	
<b>SEMESTER CREDIT HOURS</b>			<b>12</b>	



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### FOURTH SEMESTER

COURSE NAME	COURSE PREFIX	COURSE NUMBER	CREDIT HOURS	Industry-Based Credentials
GTAW Basic Multi-Join	WELD	2210	3	NCCER GTAW Equipment and Filler Metals, NCCER GTAW Basic Multi-Joins
GTAW Carbon Steel Pipe 2G	WELD	2250	3	NCCER GTAW Carbon Steel Pipe
GTAW Carbon Steel Pipe 5G	WELD	2260	3	
GTAW Carbon Steel Pipe 6G	WELD	2270	3	
GTAW Low Alloy & Stainless Steel Pipe	WELD	2280	3	NCCER GTAW Low Alloy and Stainless Steel Pipe
<b>SEMESTER CREDIT HOURS</b>			<b>15</b>	
<b>Technical Diploma - Welding = 56 credit hours</b>				
<b>Students will also earn the NCCER Level II Certification upon completion of the Technical Diploma</b>				