

# Northwest Louisiana Technical College

## Welding

### Program Description & Curriculum

The purpose of the Welding Program is to prepare individuals for employment in the field of welding. Instruction is provided in various welding processes and techniques including oxy-fuel cutting, carbon arc cutting, shielded metal arc welding, gas tungsten arc welding, flux-cored arc welding, gas metal arc welding, pipe-welding, plasma arc cutting, blueprint reading, weld symbols, and joints.

### Degrees/Certificates

Technical Diploma (TD)

Certificate of Technical Studies (CTS)

Technical Competency Area (TCA)

Available degrees and certificates may vary at each campus. Check with your local campus for more information.

**CIP 480508**

Welding CURRICULUM				
Course #	Course Title	Lecture /Lab Hours	Credit Hours	Clock Hours
WELD 1111	Occupational Orientation and Safety	2/0	2	30
<i>WELD 1111 PLUS</i>				
WELD 1141	Electrical Fundamentals	1/1	2	75
<b>TCA - WELDER HELPER</b>			<b>4</b>	<b>105</b>
<i>WELD 1111 PLUS</i>				
WELD 1211	Oxyfuel Systems/ Cutting Processes	1/2	3	115
<b>TCA - THERMAL CUTTER</b>			<b>5</b>	<b>145</b>
<i>WELD 1111 PLUS</i>				
WELD 1141	Electrical Fundamentals	1/1	2	75
WELD 1211	Oxyfuel Systems/ Cutting processes	1/2	3	115
WELD 1131	Welding Inspection & Testing	1/1	2	45
WELD 1413	SMAW Basic Beads	1/1	2	150
WELD 1411	SMAW Fillet Weld	0/3	3	150
<b>CTS - WELDER HELPER II</b>			<b>14</b>	<b>565</b>
<i>CTS Welder Helper II PLUS</i>				
WELD 1122	Basic Blueprint, Metallurgy, and Weld Symbols	2/1	3	60
WELD 1421	SMAW V-Groove Open/BU/GOUGE	1/3	4	120
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
WELD 2211	GTAW Basic Multi-Joint	1/2	3	120
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 1510	SMAW Pipe 2G	1/3	4	165
WELD 1511	SMAW Pipe 5G	0/4	4	165
WELD 1512	SMAW Pipe 6G	0/4	4	165
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>TD - WELDING</b>			<b>45</b>	<b>1690</b>

<i>Additional Exit Points</i>				
WELD 1122	Basic Blueprint, Metallurgy, and Weld Symbols	2/1	3	60
WELD 1131	Welding Inspection & Testing	1/1	2	45
<b>TCA - BASIC BLUEPRINT READING AND WELD TESTING</b>			<b>5</b>	<b>105</b>
WELD 1413	SMAW Basic Beads/ Fillet Weld	1/1	2	150
WELD 1421	SMAW V-Groove BU/Groove V-groove Open	1/3	4	120
<b>TCA - SMAW-ARC WELDER FILLET &amp; V-GROOVE</b>			<b>6</b>	<b>270</b>
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
<b>TCA - FCAW- BASIC WELDS</b>			<b>3</b>	<b>150</b>
WELD 2211	GTAW Basic Multi-Joint	1/2	3	120
WELD 2231	GTAW Aluminum Multi-Joint	1/2	3	120
<b>TCA - GTAW ARC WELDER</b>			<b>6</b>	<b>240</b>
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 1413	SMAW Basic Beads/ Fillet Weld	1/1	2	150
<b>TCA - Basic Welds</b>			<b>6</b>	<b>300</b>
WELD 1510	SMAW Pipe 2G	1/3	4	165
WELD 1511	SMAW Pipe 5G	0/4	4	165
WELD 1512	SMAW Pipe 6G	0/4	4	165
<b>TCA - SMAW PIPE WELDER</b>			<b>12</b>	<b>495</b>
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
<b>TCA - GMAW &amp; FCAW BASIC WELDS</b>			<b>7</b>	<b>300</b>
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
WELD 2991	Special Projects I	0/1	1	30
WELD 2993	Special Projects II	0/2	2	60
WELD 2995	Special Projects III	0/3	3	90
WELD 2996	Special Projects IV	3/0	3	45
WELD 2997	Practicum	0/3	3	135
WELD 2999	Cooperative Education	0/3	3	135