



Wayne  
County  
Community  
College  
District

# Welding Technology

## PAY

The median annual wage for welders was \$42,490 in May 2019.

## JOB OUTLOOK

Employment of welders is projected to grow 3 percent from 2018 to 2028, slower than average for all occupations. Skilled welders with up-to-date training should have good job opportunities.

*Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, April 2020 Welders, Cutters, Solderers, and Brazers, on the Internet at <http://www.bls.gov/ooh/production/welders-cutters-solderers-and-brazers.htm>*

## ABOUT THE PROGRAM

The Welding Technology Associate of Applied Science degree and College Certificate allow an individual to become entrepreneurial while adding diversity to their experience base. This program offers many opportunities for persons to make a sustainable living wage doing something that they enjoy. Consider a career in welding and start your training with us at WCCCD!

## WHAT DO WELDERS DO?

Welding is the most common way of permanently joining metal parts. In this process, heat is applied to metal pieces, melting and fusing them to form a permanent bond. Because of its strength, welding is used in shipbuilding, automobile manufacturing and repair, aerospace applications, and thousands of other manufacturing activities. Welding also is used to join beams in the construction of buildings, bridges, and other structures and to join pipes in pipelines, power plants, and refineries.

## WHERE DO THEY WORK?

Welders work in a wide variety of industries and settings, from car racing to manufacturing. The work that welders do and the equipment they use vary, depending on the industry. The most common and simplest type of welding today, arc welding, uses electrical currents to create heat and bond metals together—but there are more than 100 different processes that a welder can use. The type of weld is normally determined by the types of metals being joined and the conditions under which the welding is to take place.



## Recommended Sequence of Courses

### WLT: General Welding – Level 1 (WLTGW-CERT):

#### College Certificate

CR. No.	COURSE TITLE	CREDITS
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#### SEMESTER 1

FM 106	Safety and Support Service . . . . .	3
WLT 101	Arc/Oxygen – Acetylene Welding . . . . .	5
WLT 103	Gas Tungsten Arc Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>13</b>

#### SEMESTER 2

ENG 119	English I . . . . .	3
MAT 121	Technical Mathematics I . . . . .	3
DRT 101	Blueprint Reading . . . . .	3
<b>SEMESTER TOTAL . . . . .</b>		<b>9</b>

#### SEMESTER 3

WLT 104	Tungsten Inert Gas Welding . . . . .	5
WLT 105	MIG/Flux-Core/Plasma Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>10</b>

#### WLT: GENERAL WELDING

**CERTIFICATE TOTAL . . . . .32**

*Note: Certificate total hours may not include prerequisites.*

### WLT: Advanced Welding – Level 2 (WLTAW-CERT):

#### College Certificate

CR. No.	COURSE TITLE	CREDITS
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#### SEMESTER 1

MAT 122	Technical Mathematics II . . . . .	3
WLT 102	Arc Welding . . . . .	5
WLT 106	Welding Fabrication . . . . .	3
<b>SEMESTER TOTAL . . . . .</b>		<b>11</b>

#### SEMESTER 2

MAN 120	Survey of Material Science . . . . .	3
ENG 134	Technical Communications . . . . .	3
Elective:	Welding . . . . .	3
WLT 107	Welding Fabrication II . . . . .	3
<b>SEMESTER TOTAL . . . . .</b>		<b>12</b>

#### SEMESTER 3

Elective:	Welding . . . . .	3
WLT 112	Troubleshooting and Repair . . . . .	3
<b>SEMESTER TOTAL . . . . .</b>		<b>6</b>

#### WLT: ADVANCED WELDING

**CERTIFICATE TOTAL . . . . .29**

*Note: Certificate total hours may not include prerequisites.*

### WLT: Specialized Welding – Level 3 (WLTSW-CERT):

#### College Certificate

CR. No.	COURSE TITLE	CREDITS
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#### SEMESTER 1

MAN 110	Manufacturing Processes I . . . . .	3
WLT 201	Specialized Welding Process . . . . .	3
WLT 208	Pipe Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>11</b>

#### SEMESTER 2

PHY 115	Fundamentals of Physics . . . . .	4
WLT 209	Advanced Pipe Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>9</b>

#### SEMESTER 3

WLT 202	Quality Testing - Welding . . . . .	3
WLT 210	Weld Certification . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>8</b>

#### WLT: SPECIALIZED WELDING

**CERTIFICATE TOTAL . . . . .28**

*Note: Certificate total hours may not include prerequisites.*

### Welding Technology: (WELT-AAS)

#### Associate of Applied Science

CR. No.	COURSE TITLE	CREDITS
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#### SEMESTER 1

DRT 101	Blueprint Reading . . . . .	3
WLT 101	Arc/Oxygen – Acetylene Welding . . . . .	5
WLT 103	Gas Tungsten Arc Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>13</b>

#### SEMESTER 2

FM 106	Safety and Support Service . . . . .	3
WLT 104	Tungsten Inert Gas Welding . . . . .	5
WLT 105	MIG/Flux-Core/Plasma Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>13</b>

#### SEMESTER 3

ENG 119	English I . . . . .	3
MAT 121	Technical Mathematics I . . . . .	3
PS 101	American Government . . . . .	3
WLT 102	Arc Welding . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>14</b>

#### SEMESTER 4

ENG 134	Technical Communications . . . . .	3
Elective:	Humanities . . . . .	3
MAT 122	Technical Mathematics II . . . . .	3
WLT 106	Welding Fabrication . . . . .	3
<b>SEMESTER TOTAL . . . . .</b>		<b>12</b>

#### SEMESTER 5

Elective:	Natural Science w/ Lab . . . . .	4
Elective:	Social Science . . . . .	3
WLT 210	Weld Certification . . . . .	5
<b>SEMESTER TOTAL . . . . .</b>		<b>12</b>

**WELDING AAS: PROGRAM TOTAL . . . . .64**

*Note: Program total hours may not include prerequisites.*

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