



## WELDING TECHNOLOGY

### Intended Learning Outcomes

- Demonstrate by performing all safety procedures in the set-up and use of common welding equipment, cutting equipment, and other tools.
- Understand American Welding Society (AWS) welding procedure specifications by displaying confidence and ability in passing job entry proficiency tests in (Shielded Metal Arc Welding) SMAW,(Gas Metal Arc Welding) GMAW,(Gas Tungsten Arc Welding) GTAW, and(Flux Cored Arc Welding) FCAW processes.
- Interpret drawings, sketches, orthographic prints and AWS weld symbols.
- Utilize mathematical skills by measuring, calculating material usage, and laying out projects to be manufactured.
- Effectively communicate welding and cutting processes and procedures.
- Understand, demonstrate, and value attributes of professionalism.

### Welding Technology

Associate of Applied Science Degree

69 Credits

#### Semester 1

COM 101	Fundamentals of Speech	3
MAT 104	Welding Mathematics	3
MTD 101	Industrial Safety and Report Writing	3
WLD 117	Welding Theory and Metallurgy	4
WLD 118	Arc Welding	4 OR
WLD 120	Basic Arc Welding I	2 AND
WLD 121	Basic Arc Welding II	2

#### Semester 2

CIS 101	Computer Information Systems	3
WLD 107	Blueprint Reading, Layout, and Field Drawing	4
WLD 108	Low Hydrogen Welding	4
WLD 119	Gas Metal Arc Welding & Flux Cored Arc Welding	5 OR
WLD 123	Metallic Inert Gas Welding I	2 AND
WLD 124	Metallic Inert Gas Welding II	2 AND
WLD 125	Flux Cored Arc Welding	1

#### Summer Term

PSY 101	Introduction to Psychology	3 OR
SOC 101	Introduction to Sociology	3
	General Education Elective	3

#### Semester 3

MAT 123	Math in Modern Society	4 AND
---------	------------------------	-------

MAT 123L	Math in Modern Society Lab	0 OR
MAT 143	College Algebra	4
WLD 104	Oxy-Acetylene Cutting and Welding	2
WLD 202	Pipe Welding	4
WLD 206	Non-Destructive Evaluation	1
WLD 201	Tungsten Inert Gas Welding	4 OR
WLD 220	Tungsten Inert Gas Welding I	2 AND
WLD 221	Tungsten Inert Gas Welding II	2

#### Semester 4

ASE 102	Workplace Technical Skills	3
ENG 101	English composition	3
WLD 112	Carbon Air and Plasma Arc Cutting	1
WLD 204	Testing and Qualifications	4
WLD 205	Applied Work Experience	4

### Welding Technology

Advanced Technical Certificate

53 Credits

#### Semester 1

MTD 101	Industrial Safety and Report Writing	3
MAT 104	Welding Mathematics	3
WLD 117	Welding Theory and Metallurgy	4
WLD 118	Arc Welding	4 OR
WLD 120	Basic Arc Welding I	2 AND
WLD 121	Basic Arc Welding II	2

#### Semester 2

WLD 107	Blueprint Reading, Layout, and Field Drawing	4
WLD 108	Low Hydrogen Welding	4
WLD 119	Gas Metal Arc Welding & Flux Cored Arc	5 OR
WLD 123	Metallic Inert Gas Welding I	2 AND
WLD 124	Metallic Inert Gas Welding II	2 AND
WLD 125	Flux Cored Arc Welding	1

#### Semester 3

CIS 101	Computer Information Systems	3
WLD 104	Oxy-Acetylene Cutting/Welding	2
WLD 202	Pipe Welding	4
WLD 206	Non-Destructive Evaluation	1
WLD 201	Tungsten Inert Gas Welding	4 OR
WLD 220	Tungsten Inert Gas Welding I	2 AND
WLD 221	Tungsten Inert Gas Welding II	2

#### Semester 4

ASE 102	Workplace Technical Skills	3
WLD 112	Carbon Air and Plasma Arc Cutting	1
WLD 204	Testing and Qualifications	4
WLD 205	Applied Work Experience	4

### Welding Technology

Technical Certificate

33 Credits

#### Semester 1

MAT 104	Welding Mathematics	3
MTD 101	Industrial Safety and Report Writing	3
WLD 104	Oxy-Acetylene Cutting and Welding	2
WLD 118	Arc Welding	4
WLD 120	Basic Arc Welding I	2 AND
WLD 121	Basic Arc Welding II	2
WLD 117	Welding Theory and Metallurgy	4

#### Semester 2

ASE 102	Workplace Technical Skills	3
WLD 107	Blueprint Reading, Layout, and Field Drawing	4
WLD 108	Low Hydrogen Welding	4
WLD 112	Carbon Air and Plasma Arc Cutting	1
WLD 119	Gas Metal Arc Welding & Flux Cored Arc	5 OR
WLD 123	Metallic Inert Gas Welding I	2 AND
WLD 124	Metallic Inert Gas Welding II	2 AND
WLD 125	Flux Cored Arc Welding	1