

# APPLIED ENGINEERING & TECHNOLOGIES

## WELDING TECHNOLOGY

### Welding Technology Degree - A50420

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

### Welding Technology Diploma - D50420

Successful graduates of the Welding Technology diploma curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

### Welding Technology Certificate - C50420B

Instruction includes an introduction to consumable and non-consumable electrode welding and cutting processes. Additional courses in blueprint reading, metallurgy, and destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology certificate curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, and welding-related self-employment.

### Fabrication Design Certificate - C50420C

Instruction includes an introduction to fabrication design as it applies to welding technology.

### Computer Controlled Welding Certificate - C50420D

Instruction includes an introduction to computer controlled welding.

### Program Sequence

#### First Semester

WLD 110	Cutting Processes .....	2
WLD 115	SMAW (Stick) Plate.....	5
WLD 141	Symbols and Specifications .....	3
ELC 127	Software for Technicians.....	2
ENG 110	Freshman Composition .....	3

#### Second Semester

WLD 116	SMAW (Stick) Plate/Pipe.....	4
WLD 131	GTAW (TIG) Plate.....	4
COM 110	Intro to Communication .....	3
MAT 110	Math Measurement and Literacy.....	3

#### Third Semester

WLD 132	GTAW (TIG) Plate/Pipe.....	3
WLD 261	Certification Practices.....	2
WLD 262	Inspection and Testing .....	3
Elective List I	.....	1

#### Fourth Semester

WLD 121	GMAW (MIG) FCAW/Plate.....	4
MEC 161	Manufacturing Processes I.....	3
PSY 118	Interpersonal Psychology .....	3
Elective List II	.....	3

Complete Welding Technology Certificate (C50420B): WLD 110, WLD 115, WLD 121, WLD 141

Complete Computer Controlled Welding Certificate (C50420D): WLD 110, WLD 115, WLD 121, WLD 131, WLD 141

#### Fifth Semester

WLD 151	Fabrication I .....	4
WLD 122	GMAW (MIG) Plate.....	3
HUM 110	Technology and Society .....	3
ISC 112	Industrial Safety .....	2
Elective List II	.....	2

Elective 1 Track 1: Complete Fabrication Design Certificate (C50420C): Choose DFT 151 + WLD 121, WLD 141, WLD 151

Complete Welding Technology Diploma (D50420): ENG 110, MAT 110, WLD 110, WLD 115, WLD 116, WLD 121, WLD 122, WLD 131, WLD 132, WLD 141, WLD 151, WLD 261, WLD 262

#### Elective List I.. (Select 1 hour from the following courses):

ACA 220	Professional Transition .....	1
WLD 112	Basic Welding Processes .....	2

#### Elective List II (Select 5 hours from the following courses):

BUS 110	Introduction to Business .....	3
DFT 151	CAD I .....	3
DFT 152	CAD II .....	3
DFT 170	Engineering Graphics .....	3
MEC 180	Engineering Materials .....	3
PHY 121	Applied Physics I .....	4
WBL 111	Work-Based Learning I .....	1

Graduation Requirements ..... 65 Credit Hours