

Technical and Vocational Programs

D 50 42 0	Welding Technology – Diploma
C 50 42 0 I	Welding Technology Basic Certificate
C 50 42 0 II	Welding Technology Advanced Certificate

(Offered at COA-Elizabeth City and COA-Dare)
(Class offerings may vary by semester at each location.)

CONCENTRATION OVERVIEW

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 the industry-standard skills developed through classroom training and practical application.

Upon completion of this concentration, graduates will be able to qualify for employment 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.



Student Learning Outcomes – Upon completion of the program, students will:

1. Weld industrial alloys related to industry standards.
2. Research, interpret and apply codes and welding procedure specifications.
3. Generate sketches and interpret conventional and CAD-generated prints.
4. Demonstrate knowledge of welding inspection methods and testing of weldments with non-destructive and destructive methods.
5. Demonstrate the ability to set up, program, operate and troubleshoot automated equipment related to the welding industry.
6. Demonstrate the ability to set up, program, operate and troubleshoot **SMAW** welding equipment related to the industry and complete test coupons.

Partnership: N/A

D 50 42 0 Welding Technology – Diploma

First Year Fall Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
WLD 110 Cutting Processes	Pre-Requisites: None	1	3		4	2
WLD 115 SMAW (Stick) Plate	Pre-Requisites: None	2	9		11	5
WLD 121 GMAW (MIG) FCAW/Plate	Pre-Requisites: None	2	6		8	4
BPR 111 Print Reading	Pre-Requisites: None	1	2		3	2
COM 101 Workplace Communication		3			3	3
WLD 112 Basic Welding Processes	Pre-Requisites: None	1	3		4	2
TOTAL SEMESTER HOURS		10	23		33	18
First Year Spring Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
WLD 116 SMAW (Stick) Plate/Pipe	Pre-Requisites: WLD 115	1	9		10	4
WLD 122 GMAW (MIG) Plate/Pipe	Pre-Requisites: WLD 121	1	6		7	3
WLD 131 GTAW (TIG) Plate	Pre-Requisites: None	2	6		8	4
MAT 110 Math Measurement & Literacy	Pre-Requisites: MAT 003 Tier 1	2	2		4	3
WBL 110 World of Work or WBL 111 Work-Based Learning I or WBL 112 Work- Based Learning I		0-1		0-20	1-20	1-2
TOTAL SEMESTER HOURS		6-7	23	0-20	30-49	15-16
First Year Summer Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
WLD 141 Symbols & Specifications	Pre-Requisites: None	2	2		4	3
WLD 132 GTAW (TIG) Plate/Pipe	Pre-Requisites: WLD 131	1	6		7	3
TOTAL SEMESTER HOURS		3	8		11	6
TOTAL SEMESTER HOURS REQUIRED FOR DIPLOMA						39-40