



COURSE SYLLABUS
WELDING TECHNOLOGY I
Fall 2021

PROGRAM TITLE: Welding Technology I

DOE CODE: 5776

RECOMMENDED GRADE LEVELS: 11, 12

PREREQUISITES: None

HIGH SCHOOL CREDITS: 3 per semester (6 total per school year)

ELECTIVE INFORMATION: Counts as a Directed Elective or Elective for all diplomas

HOW WCC CAN HELP MEET GRADUATION PATHWAYS:

Pathway 1 High School Diploma = Directed Electives

Pathway 2 Employability Skills = Work-Based Learning

Pathway 3 Postsecondary Ready = Dual Credit

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PROGRAM DESCRIPTION: Welding Technology I includes classroom and laboratory experiences that develop a variety of skills in oxy-fuel cutting, shielded metal arc welding, and gas metal arc welding. OSHA standards and guidelines endorsed by the American Welding Society (AWS) are used to enforce safety at all times. Instructional activities emphasize properties of metals, safety issues, print reading, electrical principles, welding symbols, and mechanical drawing through projects and exercises that teach students how to weld and be prepared for college and career success.

MAJOR LEARNING OBJECTIVES:

1. Establish appropriate workplace behaviors and characteristics to prepare for completion of further education in welding training programs.
2. Apply and adapt appropriate personal and professional skills to effectively manage welding careers.
3. Integrate proper safety procedures in class activities and projects to meet professional and governmental standards.
4. Interpret technical drawings and documents to perform welding processes to specifications.
5. Create appropriate welds on a variety of industrial metals using flux core welding
6. Create sound manual and automatic oxy fuel cuts on materials to meet industry standards.
7. Execute appropriate shielded metal arc welds on a variety of industrial metal to meet industry standards.
8. Evaluate various weld stages to meet inspection criteria.

REQUIRED TEXT/CURRICULUM MATERIALS:

- Welding Skills; American Technical Publishers
- Welding Skills Workbook; American Technical Publishers

EARLY COLLEGE PROGRAM:

Whitewater Career Center is an Early College Career Center. Welding Technology students may earn the Ivy Tech Structural Welding Certificate by completing all dual credit courses available in Welding Technology I and II.

DUAL CREDITS AVAILABLE:

INDT 114 Introduction to Welding
Ivy Tech 3 credits
Qualifies for THD and Pathway Dual Credits.

WELD 100 Welding Processes
Ivy Tech 3 credits
Qualifies for THD and Pathway Dual Credits.

WELD 108 Shielded Metal Arc Welding I
Ivy Tech 3 credits
Qualifies for THD and Pathway Dual Credits.

WELD 206 Shielded Metal Arc Welding II
Ivy Tech 3 credits
Co-requisite applies. Qualifies for THD and Pathway Dual Credits.

METHODS OF INSTRUCTIONAL DELIVERY:

This course will be delivered using a variety of delivery methods. Lecture, class discussion, lab work, and individual and group exercises and activities will be used to deliver the class material.

EVALUATION METHODS:

- Classroom work
- Lab work
- Dual credit course projects and exams
- Participation and attendance

GRADING SCALE:

| | | | |
|----|---------|----|---------------|
| A+ | 99-100% | C+ | 78-79% |
| A | 92-98% | C | 72-77% |
| A- | 90-91% | C- | 70-71% |
| B+ | 88-89% | D+ | 68-69% |
| B | 82-87% | D | 62-67% |
| B- | 80-81% | D- | 60-61% |
| | | F | 59% and below |

REQUIRED CONSUMABLE MATERIALS AND EQUIPMENT:

- Student kit
- Pocket folder with 3-prong fastener

CLASS POLICIES:

1. Attend each day.
2. Communicate with your teacher when needed.
3. Put forth a good effort each day.
4. Stay on task.
5. Work well in assigned teams.
6. Do the work assigned in a timely manner.