

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
WELD 202 – Code and Inspection**

Created by: Christopher Mayville

Updated by:

Canino School of Engineering Technology

Department: Mechanical & Energy Technology

Semester/Year: Spring 2021

A. **TITLE:** Code and Inspection

B. **COURSE NUMBER:** WELD 202

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 2

Lecture Hours: 2 per week

Lab Hours: per week

Other: per week

Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** Yes No

E. **GER CATEGORY:** None: Yes: GER
If course satisfies more than one: GER

F. **SEMESTER(S) OFFERED:** Fall Spring Fall & Spring

G. **COURSE DESCRIPTION:**

Welding codes and inspection processes are covered.

H. **PRE-REQUISITES:** None Yes If yes, list below:

WELD 112

CO-REQUISITES: None Yes If yes, list below:

KEY	Institutional Student Learning Outcomes [ISLO 1 – 5]
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

*Include program objectives if applicable. Please consult with Program Coordinator

J. **APPLIED LEARNING COMPONENT:** Yes No

If YES, select one or more of the following categories:

- Classroom/Lab
- Internship
- Clinical Placement
- Practicum
- Service Learning
- Community Service

- Civic Engagement
- Creative Works/Senior Project
- Research
- Entrepreneurship
(program, class, project)

K. TEXTS:

Jeffus, Larry. (2017). Welding: Principles and Applications, 8th Edition. Boston, MA: Cengage Learning.

L. REFERENCES:

None

M. EQUIPMENT: None Needed:

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:

Homework, quizzes, and tests

P. DETAILED COURSE OUTLINE:

1. Codes, Standards, Procedures, and Specifications

American Petroleum Institute (API)

American Society of Mechanical Engineers (ASME)

American Welding Society (AWS)

AWS SENSE (Schools Excelling through National Skills Education)

2. Welding Procedure Qualification

Welding Procedure Specification (WPS)

Procedure Qualification Record (PQR)

Qualifying and Certifying

3. Quality Control Procedures

4. Weld Defects

5. Destructive Testing

Tensile

Fatigue

Shearing

Nick-Break

Guided-Bend

Free-Bend

Alternate Bend

Etching

Impact

6. Nondestructive Testing

Visual

Penetrant

Magnetizing Particle

Radiographic

Ultrasonic

Eddy Current

7. Leak Checking

8. Hardness Testing

Q. LABORATORY OUTLINE: None Yes