

MET-3830: SMART MANUFACTURING INTERNSHIP I

Cuyahoga Community College

Viewing: MET-3830 : Smart Manufacturing Internship I

Board of Trustees:

January 2024

Academic Term:

Fall 2024

Subject Code

MET - Mech Eng/Manuf Ind Eng Tech

Course Number:

3830

Title:

Smart Manufacturing Internship I

Catalog Description:

Provides student with supervised, paid professional experience in a modern manufacturing setting with an approved employer. Student will apply knowledge and skills learned in the classroom through practical, hands-on job training in smart manufacturing. 180 hours of approved work is required.

Credit Hour(s):

1

Lecture Hour(s):

0

Lab Hour(s):

0

Other Hour(s):

180

Other Hour Details:

12 hours per week of internship (total of 180 hours)

Requisites

Prerequisite and Corequisite

Department approval: Satisfactory completion of MET-2460 Applied Programmable Logic Controllers and Mechatronic Systems, and approval of internship position and location.

Outcomes

Course Outcome(s):

Apply college classroom learning in an actual manufacturing environment.

Objective(s):

1. Discuss the role of the professional in the field of manufacturing.
2. Maintain and submit a descriptive narrative report of the internship experience.

Course Outcome(s):

Develop competencies needed for future employment in the smart manufacturing field.

Objective(s):

1. Recognize the importance of punctuality.
2. Adhere to safety requirements of the manufacturing facility.

3. Develop teamwork and communication skills.
4. Understand role in manufacturing continuous process quality improvement.
5. Demonstrate ability to adapt and excel technically and professionally in a manufacturing setting.

Methods of Evaluation:

1. Written evaluation completed by work site supervisor.
2. Work records maintained by student.
3. Communications between the instructor and work site supervisor.
4. Student narrative of internship experience.
5. Other assignments as directed by instructor.

Course Content Outline:

Supervised field experience at a manufacturing facility. 180 clock hours per semester spent gaining practical, hands-on, professional work experience as a manufacturing engineer trainee. The Program Manager and/or Manufacturing CoE Instructor must approve student internship sites. The instructor will meet with the student at their work site to evaluate the student according to prescribed objectives of the course.

1. Preparation for Working in Manufacturing
 - a. Manufacturing Organization
 - b. Terminology
2. Workplace Skills
 - a. Dress
 - b. Attendance and Punctuality
 - c. Professionalism
 - d. Industrial Safety Practices
 - e. Ethics
 - f. Teamwork
 - g. Effective Communication
 - h. Time Management
 - i. Recordkeeping
 - j. Identifying Role in Manufacturing
 - k. Applying Classroom Theory to the Manufacturing Plant

Resources

Sides, Charles H. and Ann Mrvica. *Internships: Theory and Practice*. 1st ed. Routledge, 2017.

Sweitzer, H. Frederick and Mary A. King. *The Successful Internship*. 5th ed. Cengage Learning, 2018.

Tri-C Cooperative Education Student Handbook. <https://www.tri-c.edu/career-services/student-career-services/documents/tric-coop-studentbook-lowres.pdf>
