

OAN Number:
OAN Date:

Board of Trustees Date: 06/19/14
Effective Date: 08/25/14

CUYAHOGA COMMUNITY COLLEGE
OFFICIAL COURSE OUTLINE
Mapped

SUBJECT AREA TITLE

Mechanical Engineering Technology/Manufacturing Industrial Engineering Technology

COURSE TITLE

Additive Manufacturing Internship

SUBJECT AREA CODE-COURSE NUMBER

MET - 2940

COURSE CREDIT HOURS

1.00

I. DESCRIPTION OF COURSE:

A. CATALOG DESCRIPTION: Engage in actual hands-on, on-the-job training using Additive Manufacturing technology in Additive Manufacturing with 50% field experience and 50% seminar.

B. LECTURE HOURS: 0.50

C. LAB HOURS: None

D. OTHER REQUIRED HOURS: 00

Field Experience: 7 hours per week for 15 weeks.

E. PREREQUISITE(S):

MET-1230 Drawing & AutoCAD, and , MET-1240 Machine Tools and Manufacturing Processes, and , MET-1250 Introduction To Additive Manufacturing, and , MET-1260 Product Ideation and Design; or departmental approval

II. GENERAL EDUCATION OUTCOMES:

Upon satisfactory completion of MET 2940 - Additive Manufacturing Internship , the student should be able to perform the following outcomes and supporting objectives:

A. Outcome: Critical Thinking: Analyze and synthesize ideas to make evidence-based decisions and find rational solutions to problems.

Supporting Outcomes:

1. Practice the craft of Additive Manufacturing.
2. Recognize the associated responsibilities of a position in an Additive Manufacturing environment.

B. Outcome: Information Literacy: Determine where and how to acquire, evaluate, and ethically use information from multiple sources for academic success and lifelong learning.

Supporting Outcomes:

1. Recognize the associated responsibilities of a position in an Additive Manufacturing environment.
2. Demonstrate AM skills obtained in the field by writing a technical report.

C. Outcome: Oral Communication: Produce verbal and non-verbal communication for an intended audience that is clear and concise, uses standard rules for spoken language, and effectively organizes language, images and other symbols.

Supporting Outcomes:

1. Practice the craft of Additive Manufacturing.
2. Recognize the associated responsibilities of a position in an Additive Manufacturing environment.
3. Demonstrate AM skills obtained in the field by writing a technical report.

D. Outcome: Written Communication: Produce writing for an intended audience that is clear and concise, uses standard rules for written language, and effectively organizes language, images and other symbols.

Supporting Outcomes:

1. Demonstrate AM skills obtained in the field by writing a technical report.

III. OUTCOMES/OBJECTIVES:

Upon satisfactory completion of MET 2940 - Additive Manufacturing Internship , the student should be able to perform the following outcomes and supporting objectives:

A. Outcome: Practice the craft of Additive Manufacturing.

Supporting Objectives:

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

B. Outcome: Recognize the associated responsibilities of a position in an Additive Manufacturing environment.

Supporting Objectives:

1. Recognize the importance of punctuality.
2. Adhere to proper dress code in the manufacturing facility.

C. Outcome: Demonstrate AM skills obtained in the field by writing a technical report.

Supporting Objectives:

1. Describe skill(s) obtained during internship other than what was obtained at school.

IV. COURSE CONTENT:

A. Job preparation

1. Locate site of internship.
2. Demonstrate preparedness to engage in productive participation in manufacturing operations.
3. Dress appropriately
4. Acknowledge the use of job-specific terminology

B. Performance

1. Behave in a professional manner
2. Introduce yourself in a professional manner.
3. Demonstrate professionalism during your work experience.
4. Maintain time-keeping work records.

V. METHODS OF STUDENT EVALUATION MAY INCLUDE ANY OF THE FOLLOWING:

1. Proper documentation of internship work time.
2. Written narrative report summarizing the internship experience, which will include daily entries relating to new terminology encountered, new experiences, and activities/processes observed, roles, and responsibilities of the position.
3. All forms completed and submitted as required.
4. Research on relevant topics
5. Oral presentation
6. Assignments

VI. RESOURCES MAY INCLUDE ANY OF THE FOLLOWING:

- A. Gibson, Rosen, Stucker. *Additive Manufacturing Technologies, Rapid Prototyping to Direct Digital Manufacturing*. 1st Springer Science + Business Media, LLC , 2010.

**VII. ADDITIONAL RESOURCES:
RESOURCES MAY INCLUDE ANY OF THE FOLLOWING:**

- Anderson, Lydia; Bolt, Sandra. *Professionalism: Skills for Workplace Success*. 2nd Upper Saddle River, NJ:Prentice Hall, 2010.
- Powers, Paul. *Winning*. 1st Franklin Lakes, NJ:Career Press, 2009.
- Wallace, Richard. *The Only Resume and Cover Letter Book You'll Ever Need: 600 Resumes for All Industries 600 Cover Letters for Every Situation 150 Positions from Entry Level to CEO*. 1st Avon, MA:Adams Media, 2008.