MASTER SYLLABUS

MECH 101 – DRAWING FOR ENGINEERS

CIP Code: 15.0805

For assistance determining CIP Code, please refer to this webpage
or reach out to Sarah Todd at todds@canton.edu

Created by: Cullen Haskins
Updated by: N/A
A. TITLE: DRAWING FOR ENGINEERS

B. COURSE NUMBER: MECH 101

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

# Credit Hours: 1
# Lecture Hours ___ per Week
# Lab Hours ___ Week (1x at 2 hours)
Other ___ per Week

Course Length (# of Weeks): 15

D. WRITING INTENSIVE COURSE: No

E. GER CATEGORY:
Does course satisfy more than one GER category? If so, which one?

F. SEMESTER(S) OFFERED: (Fall)

G. COURSE DESCRIPTION:
In this course, students learn basic drawing skills including, sketching, geometric construction, measuring, isometrics, orthographic views, section views, dimensioning, auxiliary views, and sheet layout.

H. PRE-REQUISITES: none
CO-REQUISITES: none

I. STUDENT LEARNING OUTCOMES:

<table>
<thead>
<tr>
<th>Course Student Learning Outcome [SLO]</th>
<th>PSLO</th>
<th>GER</th>
<th>ISLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Communicate engineering ideas clearly through the use of sketching</td>
<td>(ABET – 3)</td>
<td></td>
<td>1, W</td>
</tr>
<tr>
<td>b. Employ industry-accepted drawing and dimensioning practices</td>
<td>(ABET – 1)</td>
<td></td>
<td>5</td>
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<tr>
<td>c. Correctly locate and orient orthographic, section, and auxiliary views on drawing sheets</td>
<td>(ABET – 1)</td>
<td></td>
<td>5</td>
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</table>

KEY | Institutional Student Learning Outcomes [ISLO 1 – 5]
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ISLO # | ISLO & Subsets |
1 | Communication Skills |
<table>
<thead>
<tr>
<th></th>
<th>Oral [O], Written [W]</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Critical Thinking</td>
</tr>
<tr>
<td></td>
<td><em>Critical Analysis [CA]</em>, <em>Inquiry &amp; Analysis [IA]</em>, <em>Problem Solving [PS]</em></td>
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<td>3</td>
<td>Foundational Skills</td>
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<td></td>
<td><em>Information Management [IM]</em>, <em>Quantitative Lit./Reasoning [QTR]</em></td>
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<td>4</td>
<td>Social Responsibility</td>
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<td></td>
<td><em>Ethical Reasoning [ER]</em>, <em>Global Learning [GL]</em>, <em>Intercultural Knowledge [IK]</em>, <em>Teamwork [T]</em></td>
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<tr>
<td>5</td>
<td>Industry, Professional, Discipline Specific Knowledge and Skills</td>
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**J. APPLIED LEARNING COMPONENT:**

Yes___X___ No_______

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

- Classroom/Lab__X__
- Internship___
- Clinical Practicum___
- Practicum___
- Service Learning___
- Community Service___
- Civic Engagement___
- Creative Works/Senior Project___
- Research___
- Entrepreneurship___
  (program, class, project)
K. TEXTS: https://www.g-w.com/exploring-drafting-2018#toc

L. REFERENCES: N/A

M. EQUIPMENT: Room with large, smooth table spaces for drawing. ELMO + projector for demonstrating drawing concepts, or, smart board

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:
   Homework/Labs
   Quizzes
   Exams

P. DETAILED COURSE OUTLINE:
   See Lab Outline

Q. LABORATORY OUTLINE:
   1. Week 1
      a. Why Drafting + Sketching
   2. Week 2
      a. Sketching + Drafting Equipment
   3. Week 3
      a. Drafting Techniques
   4. Week 4
      a. Basic Geometric Construction
   5. Week 5
      a. Lettering
   6. Week 6
      a. Multi-View Drawings
   7. Week 7
      a. Dimensioning
   8. Week 8
      a. Dimensioning & Review
   9. Week 9
      a. Exam 1
  10. Week 10
      a. Section Views
  11. Week 11
      a. Auxiliary Views
  12. Week 12
      a. Pictorials
  13. Week 13
      a. Pattern Development
  14. Week 14
      a. Making Prints & Review
  15. Exam 2