



Course Outcome Summary

General Education Satisfier Course

MDTC 160 Mechanical Drafting and CAD I

Course Information

Division	Applied Science and Engineering Technology
Contact Hours	30
Lab Hours	60
Total Credits	4

Prerequisites RDG 090 or qualifying scores on ACT or COMPASS tests

Course Description

This course is a first exposure to the drafting and design field. Orthographic projection, dimensioning, sectioning, tolerancing, threads and fasteners, and assembly drawings will be taught using both sketching techniques and Computer Aided Drafting (CAD) software. A major emphasis will be placed on current drafting standards and procedures.

This course is approved as a General Education competency satisfier.

General Education Goal: Communication

Competency: Understand and apply current and appropriate technology tools and resources

Learning Outcome: Students will use computer technology to retrieve and communicate information.

General Education Learning Objectives

- A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
- B. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
- C. Demonstrate the ability to use document processing software.
- D. Demonstrate the ability to use presentation software to communicate information and ideas.
- E. Demonstrate the ability to appropriately and responsibly utilize current communication technology methods.

Course Outcomes

In order to evidence success in this course, the students will be able to:

1. Navigate through and create drawings in AutoCAD's 2D drawing workspace
Applies to General Education Objectives
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - B. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas.
 - E. Demonstrate the ability to appropriately and responsibly utilize current communication technology methods.



2. Demonstrate how to create an orthographic projection
Applies to General Education Objective
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas.

3. Demonstrate how to dimension an orthographic projection using proper dimensioning techniques
Applies to General Education Objective
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas.

4. Demonstrate how to create various sectional views
Applies to General Education Objective
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas

5. Demonstrate knowledge of tolerancing and how important this technique is to mass production
Applies to General Education Objective
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - B. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas.
 - E. Demonstrate the ability to appropriately and responsibly utilize current communication technology methods.

6. Demonstrate knowledge of thread notations and fasteners
Applies to General Education Objectives
 - A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
 - B. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
 - C. Demonstrate the ability to use document processing software.
 - D. Demonstrate the ability to use presentation software to communicate information and ideas.



MONROE COUNTY
COMMUNITY COLLEGE

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7. Demonstrate how to create an assembly drawing

Applies to General Education Objective

- A. Demonstrate an understanding of the functionality and terminology associated with current information technology tools and resources.
- B. Demonstrate the ability to conduct online research to locate and retrieve relevant information from credible sources.
- C. Demonstrate the ability to use document processing software.
- D. Demonstrate the ability to use presentation software to communicate information and ideas.
- E. Demonstrate the ability to appropriately and responsibly utilize current communication technology methods.