

# APSM 127: SMQ-27 BASIC AUTOCAD

## Foothill College Course Outline of Record

| Heading                 | Value  |
|-------------------------|--|
| Effective Term:         | Summer 2021  |
| Units:                  | 1.5  |
| Hours:                  | 12 lecture, 28 laboratory per quarter (40 total per quarter)   |
| Prerequisite:           | Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Apprenticeship Program. |
| Degree & Credit Status: | Degree-Applicable Credit Course  |
| Foothill GE:            | Non-GE   |
| Transferable:           | None   |
| Grade Type:             | Letter Grade (Request for Pass/No Pass)  |
| Repeatability:          | Not Repeatable   |

## Student Learning Outcomes

- A successful student will be able to perform essential computer file management operations.
- A successful student will be able to demonstrate basic use of the program by creating and plotting a drawing assignment using template provided and parameters.

## Description

Students learn how to follow the proper protocols for computer lab use and perform essential computer file management operations. Students will navigate through the basic AutoCAD screen and command menus. Students will demonstrate the basic use of the AutoCAD program by creating and plotting a drawing assignment within parameters and given template. Students will be able to demonstrate how AutoCAD is used in the Sheet Metal Industry.

## Course Objectives

The student will be able to:

- Describe how AutoCAD can be used in the Sheet Metal Industry
- Perform essential computer file management operations
- Navigate through the AutoCAD screen and command menus
- Demonstrate basic use of the program by creating and plotting a drawing assignment within parameters and template given

## Course Content

- Describe how AutoCAD can be used in the Sheet Metal Industry
  - Introduction to purpose of AutoCAD
- Perform essential computer file management operations
  - Basic computer skills and opening program
  - Introduction to file management
- Navigate through the AutoCAD screen and command menus
  - Introducing the AutoCAD screen
  - Introduction to commands, menus and templates
- Demonstrate basic use of the program by creating and plotting a drawing assignment within parameters and template given

- Use of basic tools and commands
- 2-D versus 3-D drawings
- Plotting

## Lab Content

- Use of computers with AutoCAD drawing software
- Practice to develop knowledge and techniques employed in AutoCAD drafting

## Special Facilities and/or Equipment

- CAD laboratory with computers, sheet metal software and products
- Personal protective equipment

## Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

- Results of written quizzes and tests
- Shop participation
- Comprehensive written final examination
- Comprehensive final project
- Evaluation of progress by weekly assignments

## Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

- Discussion
- Laboratory
- Demonstration

## Representative Text(s) and Other Materials

Wyss, Paul. *Practical AutoCAD*. 2009.

International Training Institute. *International Training Institute, Detailing Student Workbook (student manual)*. 2007.

These are the standard Sheet Metal textbooks/workbooks used for this course. Although one or more may not be within 5 years of the required published date, they are the most current books used when teaching this course.

## Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- Reading assignment, from textbook: Unit 6, Drawing Commands.
- Writing assignment, from textbook: complete unit review answers for Unit 5, Coordinate Input.

## Discipline(s)

Sheet Metal