

# DD 101 - PRINT READING AND SKETCHING

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## Learning How to Learn:

- Give feedback related to their use of print and sketching techniques in order to increase their consistency and quality.

## Course Description

Students will learn to read engineering drawings of products and tooling used in today's manufacturing. Basic drawing format and layout are presented using product, tooling assembly, and tooling detail drawings. Students learn methods of three dimensional shape description, dimensioning and tolerancing. Types of fasteners along with related terminology and manufacturing processes, material specifications, and welding symbols are presented. Students learn the presentation skills of orthographic projection, isometric and oblique pictorial drawings using straight line and free hand sketches. Group 2 course.

## Credit Hours

3

## Contact Hours

4

## Lecture Hours

2

## Lab Hours

2

## General Education Outcomes supported by this course

Critical Thinking - Direct

## Course Learning Outcomes

### Knowledge:

- Describe the function of drawings used in manufacturing and mechanical engineering.
- Define terminology related to engineering and manufacturing technology.
- Identify methods of three-dimensional shape description, dimensioning and tolerancing.

### Application:

- Interpret a variety of drawings used in manufacturing and mechanical engineering.
- Describe the process related to engineering and manufacturing technology.

### Integration:

- Demonstrate the use of Geometric dimensioning and tolerancing systems for computer-generated three-dimensional solid models.
- Present skills of orthographic projection.
- Know the relationship of accurate print reading and sketching with other processes in manufacturing materials and processes.

### Human Dimension:

- Apply sketching techniques to quickly and effectively communicate ideas to other professionals.

### Caring - Civic Learning:

- Recognize the importance of accuracy in their drawings.