



South Central College

## CMAE 1510 Print Reading

### Common Course Outline

#### Course Information

<b>Description</b>	This course will give students an understanding of basic mechanical drawing principles. Topics include the alphabet of lines, arrangement of views, orthographic projections, scaling, dimensioning, tolerancing, and symbols. Students will read and interpret mechanical drawings. (Prerequisites: None)
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<b>Total Credits</b>	2
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<b>Total Hours</b>	32
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#### Types of Instruction

Instruction Type	Credits/Hours
Lec	2/32

#### Pre/Corequisites

None

#### Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

#### Course Outcomes

##### 1. Interpret line conventions and lettering

###### Learning Objectives

Describe the size, construction, and application of the various lines used in making drawings  
Identify the type and style of lettering for use on drawings

##### 2. Evaluate drawings based on information in the title block, parts list and notes

###### Learning Objectives

Describe drawing specifications based on title block information  
Describe revisions to drawing  
Identify bill of material

### **3. Interpret multi-view drawings**

#### **Learning Objectives**

Explain location of print components  
Identify meaning of various elements of blueprints  
Explain view orientation of part component  
Explain 1st angle projection

### **4. Determine tolerances and limits on drawing dimensions**

#### **Learning Objectives**

Explain bilateral tolerances  
Explain unilateral tolerances  
Acknowledge limit tolerances  
Define tolerances

### **5. Interpret assembly drawings**

#### **Learning Objectives**

Interpret basic Geometric Dimensioning & Tolerancing (GD&T) symbols  
Identify weld symbols

### **6. Correlate drawing types to manufacturing processes**

#### **Learning Objectives**

Demonstrate process planning  
Interpret section views

### **SCC Accessibility Statement**

Disability Services provides accommodations and other supports to students with permanent and temporary disabilities that affect their SCC experience. Disabilities may include mental health (anxiety, depression, PTSD), ADHD, learning disabilities, chronic health conditions (migraine, fibromyalgia), sensory disabilities, and temporary disabilities (broken arm, surgery). Common accommodations are extended test time, private room for testing, audiobooks, and sign language interpreter.

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