South Central College

CIM 1100 Interpreting Engineering Drawings I - Introduction

Common Course Outline

Course Information

Description  This course provides an overview of basic prints and drawings involved in machining. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic GD&T feature control frames. (Prerequisite: None)

Total Credits  1.00
Total Hours  16.00

Types of Instruction

Instruction Type  Lecture
Credits/Hours  1/16

Pre/Corequisites

Prerequisite  None

Institutional Core Competencies

Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

Critical and creative thinking: Students will develop the disposition and skills to strategize, gather, organize, create, refine, analyze, and evaluate the credibility of relevant information and ideas.

Written and oral communication: Students will communicate effectively in a range of social, academic, and professional contexts using a variety of means, including written, oral, numeric/quantitative, graphic, and visual modes of communication.

Course Competencies

1  Identify basic symbols and notation on blueprints.
   Learning Objectives
   Identify drawing nomenclature.
   Explain different icons used to create title block and other blueprint components.

2  Explain the utilization of tolerances.
   Learning Objectives
   Explain bilateral tolerances.
   Explain unilateral tolerances.
Acknowledge limit tolerances.
Apply Maximum Material Condition (MMC).

3 **Apply classes of fit to create working drawings.**

   **Learning Objectives**
   Define classes of fit.
   Describe applications of classes of fit.
   Determine appropriate class of fit for a given situation.
   Indicate class of fit on blueprint.
   Use Machinery Handbook as required.

4 **Explain Geometric Dimensioning and Tolerancing (GD&T).**

   **Learning Objectives**
   Explain GD&T.
   Identify basic GD&T symbols.
   Interpret basic GD&T feature control frame.
   Describe modifiers.

5 **Interact with engineering drawings.**

   **Learning Objectives**
   Explain key terms.
   Utilize the components of engineering drawings.
   Create title block.
   Describe line types.

6 **Describe Quality Assurance planning.**

   **Learning Objectives**
   Compare inspection and preventative processes.
   Define differences between attributes and variables (surface finish/appearances vs. measurable).

**SCC Accessibility Statement**

If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-389-7222.

Disabilities page [http://southcentral.edu/academic-policies/disability-rights.html](http://southcentral.edu/academic-policies/disability-rights.html)