South Central College

CIM 2101  Interpreting Engineering Drawings III

Common Course Outline

Course Information

Description
This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued, hands-on interaction with symbols, notations, and GD&T feature control frames. (Prerequisite: CIM 1201 - Interpreting Engineering Drawings II)

Total Credits 3.00
Total Hours 80.00

Types of Instruction

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Pre/Corequisites

Prerequisite     CIM 1201 - Interpreting Engineering Drawings II

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  Analyze multiple symbols and notations on machining prints.
   Learning Objectives
   Explain the use of variant items on engineering drawings.
   Define a wide variety of nomenclature on prints.

2  Appraise usage of tolerances.
   Learning Objectives
   Critique uses of bilateral and unilateral tolerances.
   Explore and evaluate use of Maximum Material Condition (MMC) information.
3 **Modify prints as needed.**

Learning Objectives
Determine effectiveness of prints.
Identify elements to modify on prints.

4 **Gather specifications to apply to prints for an intermediate project.**

Learning Objectives
Determine initial specifications for a given task.
Select additional specifications beneficial to task.

5 **Determine project plan from multiple prints.**

Learning Objectives
Read symbols and notations to create a project plan.
Evaluate project requirements to determine content of prints.

6 **Consider class of fit.**

Learning Objectives
Determine appropriate class of fit for an intermediate project.
Apply class of fit appropriately.

7 **Practice reading multifaceted drawings.**

Learning Objectives
Explain location of print components.
Identify meaning of various elements of blueprints.
Summarize project specifications after consulting drawings.

8 **Apply engineering drawing specifics to projects.**

Learning Objectives
Utilize information to determine steps of project.
Develop a plan based on print components.
Consult drawing to create part.

9 **Create quality assurance planning processes.**

Learning Objectives
Determine accuracy of average and standard deviation.
Check quality through incorporation of multiple types of plans.
Create a continual improvement process for quality assurance.

**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)