South Central College

CIM 1107 Internship

Common Course Outline

Course Information

Description
This course is a paid internship designed to facilitate learning in the manufacturing environment. Course competencies are developed and approved as a cooperative learning contract between employer, student and course instructor. Students are required to develop reports and a final presentation to present their individual learning competencies to the rest of their class. Instructors will meet with the student during the internship to assess progress. (Prerequisite: Must successfully pass the tests and receive the following NIMS credentials: Materials, Management, & Safety; Manual Milling; Job Planning, Benchwork, & Layout; Drill Press Skills)

Total Credits 2.00
Total Hours 96.00

Types of Instruction

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<tr>
<th>Instruction Type</th>
<th>Credits/Hours</th>
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<td>Internship</td>
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Pre/Corequisites

Prerequisite
Must successfully pass the tests and receive the following NIMS credentials: Materials, Management, & Safety; Manual Milling; Job Planning, Benchwork, & Layout; Drill Press Skills

Course Competencies

1. **Demonstrate shop safety standards.**
   Learning Objectives
   - Identify shop safety issues.
   - Demonstrate proper mill power-up and power-down procedures.
   - Demonstrate proper lockout/tagout procedures.

2. **Utilize measuring devices.**
   Learning Objectives
   - Apply fractional operations.
   - Use micrometers & calipers as needed.

3. **Use workholding solutions.**
   Learning Objectives
   - Demonstrate various workholding techniques.
Utilize workpiece clamping methods.
Use machine vices.

4 Operate CNC milling equipment to produce products.
   Learning Objectives
   Use vertical and horizontal spindle machines.
   Generate parts as outlined on part print.
   Use manufacturing cell.

5 Inspect parts for quality.
   Learning Objectives
   Apply quality practices.
   Use key measurement terms.
   Adhere to inspection plan.

6 Operate CNC lathe equipment to produce products.
   Learning Objectives
   Identify types of CNC lathes.
   Demonstrate proper machine use.

7 Interact with control system.
   Learning Objectives
   Select parameter settings.
   Define control system operation.
   Utilize machine operator control panel.

8 Describe machine modes.
   Learning Objectives
   Analyze Manual Data Input (MDI).
   Identify the jog feature.
   Demonstrate machine home position sequence.

9 Utilize machine offsets.
   Learning Objectives
   Interpret work offsets.
   Define workshift.
   Discriminate machine origin and workpiece origin.

10 Activate homing procedure.
    Learning Objectives
    Acknowledge machine coordinate move operations.
    Demonstrate machine power-up.
    Activate zero return operation.

11 Acknowledge part drawing.
    Learning Objectives
    Interpret part drawing.
    Review title block.
    Define part complexity.

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