South Central College

CIM 2202 CNC Programming IV

Common Course Outline

Course Information

Description
This course provides students with continuing opportunities to work with CNC programming, building on what was learned in the previous programming course. Additional material includes alternative work holding and advanced tooling set-up and operation for production of an advanced project. (Prerequisite: CIM 2102 - CNC Programming III).

Total Credits 3.00
Total Hours 80.00

Types of Instruction

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Credits/Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>1/16</td>
</tr>
<tr>
<td>Lab</td>
<td>2/64</td>
</tr>
</tbody>
</table>

Pre/Corequisites

Prerequisite CIM 2102 - CNC Programming III

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.

Foundations and skills for lifelong learning: Students will display an understanding of learning as a lifelong process through demonstration of a desire to learn, the willingness to apply learning to other areas of their lives, the ability to think and act independently, be willing to take the initiative to get projects done, and demonstrate the ability to reflect upon what has occurred and how it impacts the student and others.

Teamwork and problem-solving: Students will demonstrate the ability to work together cohesively with diverse groups of persons, including working as a group to resolve any issues that arise.

Course Competencies

1. Execute spindle orientation.
   Learning Objectives
   Describe spindle orientation.
   Identify code for spindle orientation.

2. Initiate machine maintenance.
Learning Objectives
Illustrate checking oil level.
Illustrate checking air pressure.

3 Discuss program stop.
Learning Objectives
Use slide hold.
Use emergency stop.

4 Describe program override.
Learning Objectives
Use spindle override.
Use feedrate override.

5 Describe fourth axis.
Learning Objectives
Use fourth axis.
Illustrate indicating fourth axis.

6 Develop indicating part practice.
Learning Objectives
Illustrate indicating part for flatness.
Illustrate indicating a diameter.

7 Demonstrate proper tool holder use.
Learning Objectives
Explain tool holder taper.
Explain cleaning tool holder taper.

8 Identify cutters.
Learning Objectives
Use carbide endmills.
Use roughing endmills.

9 Utilize mid program start.
Learning Objectives
Describe mid program start.
Discuss mid program CNC start.

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