South Central College

CIM 1205  Surface Grinding II

Common Course Outline

Course Information

Description
Grinding II is a further application of surface grinding covered in Grinding I that includes more advanced set-ups and fixturing. (Prerequisites: CIM 1105 - Surface Grinding I)

Total Credits 2.00
Total Hours 64.00

Types of Instruction

Instruction Type Credits/Hours
Lab 2/64

Pre/Corequisites

Prerequisite CIM 1105 - Surface Grinding I

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.

Course Competencies

1  Grind parts within a tolerance of +/- .0002".

   Learning Objectives
   Execute spark-out pass.
   Inspect part with precision gaging.

2  Use a Spindex to grind parts.

   Learning Objectives
   Position spindex properly on surface grinder mag chuck.
   Load round stock into spandex.

3  Use a precision vise to grind parts.

   Learning Objectives
   Identify proper squaring method.
   Identify causes for measures out of tolerance.
4 **Use a sine plate to grind parts.**
Learning Objectives
- Calculate gage block stack height.
- Set sine plate for compound angle.

5 **Dress mag chuck.**
Learning Objectives
- Prepare mag chuck for dressing process.
- Dress mag chuck fence.

6 **Use an angle plate to grind parts.**
Learning Objectives
- Indicate part on angle plate.
- Identify advantages of using an angle plate to grind parts.

7 **Grind non-ferrous materials.**
Learning Objectives
- Compare the grinding process of non-ferrous to ferrous materials.
- Contrast the grinding process of non-ferrous to ferrous materials.

8 **Use shim stock.**
Learning Objectives
- Identify situations for shim stock use.
- Describe the different uses of shim stock.

**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)