COURSE INFORMATION FORM

DISCIPLINE CIMM
COURSE TITLE Basic Lathe Operation
CR.HR 1 LECT HR .5 LAB HR 1 CLIN/INTERN HR. _______ CLOCK HR. _______

CATALOG DESCRIPTION
This course covers the safe use and proper operation of a manual lathe. This course is designed for students in engineering disciplines. It serves as a prerequisite for supervised use of the Engineering Student Machine Shop and serves as a prerequisite for all UMKC Engineering Lab courses.

PREREQUISITES
CIMM 101 or concurrent enrollment

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:

1. Setup and safely operate a manual lathe.
2. Calculate lathe speeds and feeds for lathe operation.
3. Identify the main parts of a lathe and describe how a lathe operates.
4. Demonstrate basic lathe care and maintenance.
5. Understand the terminology used in a manufacturing environment in order to communicate effectively.
6. Acquire personal experience operating machine shop lathe equipment and gain knowledge of basic lathe operations.
7. Understand the capabilities of lathes commonly used in prototype fabrication.
GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Outcomes ESO

PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will demonstrate the ability to apply foundational skills in an industrial setting, safely and to industry guidelines.
2. Students will think critically and apply problem-solving skills.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Written and Application Exams (1-7)
2. Assignments/Lab projects (1-7)
CATALOG NO.  CIMM 102

DISCIPLINE  CIMM

COURSE TITLE: Basic Lathe Operation

Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An asterisk can be used to mark an item as optional.

I. Nomenclature of machine
II. Various controls of lathes
III. Turning, facing, drilling, and tapping
IV. Use of three-jaw and 4-jaw chucks
V. Turning between centers
VI. Indicating workpieces in chucks