MET-111 MANUFACTURING PROCESSES 1

MET 111 Manufacturing Processes 1
Pre-Requisites: MAT 120, Contact Hours: 5,
Credit Hours: 3 Instructor: Zane Decker
Email: zane.decker@cincinnatistate.edu
Instructor mailbox: Room 210 (look for Z. Decker on the right wall) Room: 141 Main Campus Building
Office/shop hours: TBD will be posted on black board
Required Text: Precision Machining Technology, Janes, Hopewell, & Hoffmann

Course Description: An introduction to machining & fabrication. Topics include: measuring techniques, manual & computer numerical controlled metal removal processes, machine operations, & materials considerations.

Course Outcomes:

1) The student will be able to apply knowledge, techniques, skills and modern tools of the discipline to analyze and solve design problems.
2) The student will have the ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems
3) The student will have an ability to function effectively as a team member of a technical team
4) The student has the ability to apply written, oral, and graphical communication in both technical and non-technical environments; an ability to identify and use appropriate technical literature
5) The student will demonstrate a commitment to quality, timeliness, & continuous improvement

Grading scale:	Your grade will be determined by:
A= 90-100 B= 80-89 C= 66-79 F= <65	Homework / labs: 65% Quizzes / Tests: 25% Attendance / Class Participation: 10%

Plagiarism: Using someone else's work as your own is plagiarism and will result in both parties receiving a grade of zero on the assignment. A second offense will result in a grade of "F" for the course for both parties involved.

If you have a disability that may require accommodations, please contact the Cincinnati State Office of Disability Services to have it documented, assessed, and accommodations authorized. If authorized, ODS will provide a Letter(s) of Accommodation for you to give to your instructors. Every semester thereafter you will contact ODS to request your new letters of accommodation. To register or ask questions contact ODS at 513-569-1775 or email disabilities@cincinnatistate.edu

-**The machines used in this class can be deadly.** Treat all equipment with great respect!... If you don't, it may cost you your grade, or your life! Read and know the attached

safety guidelines.

-Safety infractions are noted, and will negatively affect your grade. Excessive dangerous actions will result in a failure of the course and possible banishment from room 141 and or 140.

-ANY damage to tools or equipment will be noted and will **negatively affect your grade.** Accidents do happen, but there is absolutely no excuse for carelessness. (i.e. feeding a tool into a vise.)

-**Always clean up your work and machine**, if a machine or the room is left dirty it will be noted, and will negatively affect your grade.

-Don't miss class! If you must miss class it is the student's responsibility to find out what was missed.

-Make-up exams, quizzes and labs are given at the discretion of the instructor.

-**All projects must be turned in by the last day of class**, any assignments not turned in by the end of the final class period will receive a zero.

Week	Topics
1	Introduction, Safety, Units, Measuring tools
2	Introduction to basic shop tools and simple machine tools. Measurement Lab
3	"Demo Week" Introduction to machine tools, Mill, Lathe, Safety Lab, First Open Lab
4	Material Properties, Machine tools, Lab Demos, Lab Work is Assigned, Open Lab
5	Types of materials and Stress, Machine tools, Lab Demos, Open Lab
6	Chip Formation and Speeds/Feeds, Machine tools, Lab Demos, Open Lab
7	Speeds and Feeds, Set-up of machine tools, Lab Demos, Open Lab
8	Introduction to CNC machine tools, CNC lab Demos, Open Lab
9	Midterm Exam, Open Lab
10	Introduction to CNC programming G-code, Open Lab
11	G-Code Programming, Haas CNC Setup Labs (no open lab)
12	CNC machine tools and programming CNC Lab Demos, Open Lab
13	CNC machine tools, Open Lab
14	CNC machine tools, Open lab
15	Final Exam, Open Lab

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