

**REEDLEY COLLEGE**  
**Manufacturing 38A - Production Machining**  
**General Information and Policies**

**INSTRUCTOR:** Mr. Gene Evans  
**PHONE:** 638-0313, 638-3641 (leave message)  
**OFFICE:** IT16  
**OFFICE HOURS:** Tuesday, Wednesday, Thursday 2:00 p.m. - 3:00 p.m.  
**DESCRIPTION:** Production Machine Shop, 5 units, 10 hours weekly. Advanced machining operations, CNC mill programming and machining, multi part and 4th axis programming, high speed machining, angular measurement and machining, precision grinding.

**EXPECTED OUTCOMES:**

1. The student will be able to perform computations, program and machining operations which include multiple part and 4th axis set-ups with the use of subroutines on CNC mills.
2. The student will be able to use trigonometric computations and use these figures to set-up and perform precision angular machining.
3. The student will be able to set-up and perform precision grinding operations on the surface grinder and the tool and cutter grinder.

**REQUIRED BACKGROUND:**

MFG 37A-B or equivalent.

**MINIMUM STUDENT MATERIALS:**

1. The CNC Workbook, Nanfara, Addison-Wesley, 1995.
2. Safety Glasses
3. Recommended - Machinery's Handbook, Starting Machinist Tool Box.

**HOW CLASS WILL BE CONDUCTED:**

1. Lecture
2. Shop Work
3. Field Trips
4. Quizzes

TEXT:

Machining Center Programming and Operation CNC Concepts, 1993.

AGENDA:

<u>Week</u>	<u>Agenda</u>
1-2	Precession Measurement Review, Shop Safety
3-4	Grinding Machines - Operations Tool and Cutter Grinding
5	Review CNC Controls G and M Codes
6	Structure of Part Programs
7	Writing Part Programs
FRIDAY, OCTOBER 16	LAST DAY TO DROP CLASS
8-9	Setting Up Machine Tools
10-11	Part Programming for Milling and Drilling Work
12-13	Part Programming Multiple Parts Subroutines - 4th Axis
14-17	Computer Aided Programming
December 15, 8:00-10:00 a.m.	Programming Exam

GRADING:

Study Activities: 8 assignments, 50 points each	400 pts.
Shop Work: weekly work graded of the time cards collected every two weeks, 10 points each day	360 pts.
Required Project Work	600 pts.
Quizzes and Exams: 4 quizzes, 100 points each	400 pts.
Final Exam, 200 pts.	200 pts.
Attitude: ability to follow instructions, being able to work without constant instruction, ability to work and supervise others.	<u>200 pts.</u>
TOTAL:	1760 pts.

100% to 90% = A  
89% to 80% = B  
79% to 70% = C  
69% to 60% = D

### ATTENDANCE:

Roll will be taken daily. Any student missing more than three days per each 9-week period will be counseled by the instructors. If the student misses one additional day, he/she will be dropped from the class.

You are responsible to find out from the instructor any materials missed during an absence. Tests may be made up only with the instructor's permission.

### GENERAL POLICIES:

You are responsible to bring required materials to class. Textbooks and safety glasses will be required daily.

Lockers will be provided for storage of projects and required materials.

Supplies will be provided by the school for required projects.

School policy prohibits smoking, eating, and drinking in the classroom and the laboratory.

Any conduct that disrupts or distracts the class or is dangerous will not be tolerated.

Willful violation of any safety rule that endangers the health of yourself or others will result in immediate dismissal from the class.

### DROP DATE:

The drop date deadline will be October 16, 1998, the end of the ninth week. This will be the last date that a student will be able to drop a class without receiving the grade he or she has earned. A review of your class progress will be made at the end of the seventh week to assist you in this decision.