El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Machining Technology**
COURSE RUBRIC AND NUMBER	**MCHN 1438**
COURSE TITLE	**Basic Machine Shop I**
COURSE CREDIT HOURS	**4 3 : 3** **Credits Lec Lab**

I. Catalog Description

Provides an introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools including the lathe, milling machine, drill press, power saw, and bench grinder. Includes machine terminology, theory, math, part layout, and bench work using common measuring tools. Emphasizes shop safety, housekeeping, and preventative maintenance. **(3:3). Lab fee.**

II. Course Objectives

Upon satisfactory completion of this course, the student will be able to:

A. Demonstrate proper handling of files.
B. Utilize hand tools and machinist vise.
C. Operate pedestal grinder and belt sander.
D. Sharpen tool bits and drills.
E. Perform bandsaw operations.
F. Perform drill press operations.
G. Utilize semi-precision tools for layout.
H. Calculate RPM's with machinist ready reference manual
I. Use personal safety attire.
J. Organize work area
K. Perform basic math operations.
L. Evaluate part for accuracy.
M. Convert fractions to decimals.
N. Verify safety of tools and equipment.
O. Establish a sequence of tooling procedures.
P. Construct layout procedures.
Q. Select appropriate materials.
R. Perform regular housekeeping.
S. Convert from English to metric units.
T. Operate hydraulic and arbor presses.
U. Perform preventive maintenance.
V. Fabricate parts of automated equipment

III. THECB Learning Outcomes (WECM)

1. Demonstrate set-up and use of the lathe, milling machine, drill press, power saw, and bench grinder applying good housekeeping, proper safety, and preventative maintenance.
2. Use precision instruments to perform bench work including part layout, drilling, reaming, taping, press fitting, location of hole centers and surfaces.
3. Set up power saws for cutoff operation.
4. Demonstrate tooling maintenance, and hazardous material handling.
5. Perform preventative maintenance.
6. Interpret blueprints.

IV. Evaluation

A. Pre-Assessment
Students may request pre-assessment for the purpose of challenging this course. Any exam given for this purpose will contain a written exam as well as a practical laboratory exam.

B. Challenge Exam
Students who wish to challenge the course should contact the Testing Center and Division Deans. Challenges must be accomplished before the census cut-off date. Students who previously have received a "W" or a letter grade for the course are not eligible to challenge the course. Student must score a minimum of 85% in order to successfully challenge this course.

C. Post-Assessment
1. The instructor will maintain a continuous record of each student's progress on an institutionally approved grade sheet or computerized substitute. All instructors must keep records in such a way that information would be clear to a second party having to check grade computation in special cases. An explanatory legend should be provided on the grade sheet.
2. The final project will count at least 20% (percent) of the course grade. This part of the grade should reflect evaluation of the various machining assignments. It is up to the individual instructor to decide how much he/she will weigh these measuring steps, but under no circumstances should the instructor base the entire grade solely on the completed final product.
3. Assignments, exams, and machining projects will count for 80% (percent) of the course grade.
4. The instructor is required to schedule an appropriate activity for the final exam period. The completed exams and projects should be sufficient to demonstrate mastery of course content. The following are some suggested uses of the final exam period:

    a. Students can take a previous exam and review major sections.
    b. Students can view an appropriate audio-visual presentation.
    c. Students can meet with the instructor to review their course work.

D. Remediation
1. Students needing assistance with assignments should contact the instructor.
2. Make-up work and retakes of quizzes may be provided at the instructor's discretion.

E. Grading Criteria: The following grading criteria will be utilized.

Course Activities	20%
Exam #1	10%
Exam #2	10%
Course Projects	40%
Final Project	20%

F. Grading Scale

90 – 100	=	A
80 – 89	=	B
70 – 79	=	C
60 – 69	=	D
0-59	=	F
Incomplete	=	I
Withdrew or Withdrawn	=	W

V. Disability Statement (Americans with Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.