El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Machining Technology**
COURSE RUBRIC AND NUMBER	**MCHN 1308**
COURSE TITLE	**Basic Lathe**
COURSE CREDIT HOURS	**3 2 : 4** **Credits Lec Lab**

I. Catalog Description

Introduces the common types of lathes. Emphasizes basic parts, nomenclature, lathe operations, safety, machine mathematics, blueprint reading, and theory. **(2:4). Lab Fee.**

II. Course Objectives

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

A. Identify parts and functions of Engine Lathe.
B. Perform machine setups.
C. Indicate part with 3-Jaw, 4-Jaw chuck.
D. Cut material.
E. Utilize lathe accessories.
F. Calculate rpm's and feeds and speeds.
G. Perform cutting operations (facing, turn down, drill, tap, and knurl).
H. Perform finishing operations (filing, polishing, and grinding).
I. Perform O.D. and I.D. threading operations.
J. Write a sequence of operations.
K. Evaluate part for accuracy.
L. Utilize machinist ready reference manual.
M. Organize work area..
N. Use personal safety attire.
O. Practice safety with hand tools.
P. Perform regular housekeeping.
Q. Utilize terminology of trade.
R. Inspect part with micrometers.
S. Convert fractions to decimals.
T. Sharpen tool bits using pedestal grinder. (Tool geometry)
U. Perform preventive maintenance.
V. Set up taper attachment.
W. Utilize digital readout
X. Calibrate measuring instruments.
Y. Maintain measuring instruments.

III. THECB Learning Outcomes (WECM)

1. Identify engine lathe components.
2. Match cutting speeds and feeds to materials.
3. List safety procedures.

Revised by Discipline: Fall 2015 (next revision in 3 years)

4. Identify machine accessories.
5. Identify types of lathes.
6. Use formulas to calculate speeds and feeds.
7. Set up basic lathe operations.
8. Perform metal removing operations such as turning, facing, drilling, grooving, turning between centers, and threading.
9. Perform basic machine maintenance.

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 lathe 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 lathe 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%

E. 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 (American 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.