El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA   **Mathematics**

COURSE RUBRIC AND NUMBER   **MATH 1332**

COURSE TITLE   **College Mathematics**

COURSE CREDIT HOURS   <u> 3   3 :   0 </u>
                                                Credits   Lec   Lab

I.   Catalog Description

Provides college-level competence in the origination and valuing of mathematical systems such as number, set, propositional logic, and graph theory. Develops essential competence in their use as powerful aids to thought and communication (both quantitative and qualitative), problem statement and resolution (including estimating techniques when appropriate) in both "real world" and "abstract world" domains. **Prerequisite: MATH 0301 or NCBM 0101 with a "C"** better or **ME01 or by placement exam. (3:0).**

II.   Course Objectives

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

A.   Unit I - Sets and Critical Thinking:
1. Conduct deductive reasoning, inductive reasoning, and estimating.
2. Master natural numbers, set concepts, subsets, Venn diagrams and set operations, De Morgan's Laws, and application of sets.

B.   Unit II – Logic:
1. Translate logical statements and Logical Connectives from language to math symbols.
2. Use truth tables for negation, conjunction, and disjunction, conditional and biconditional situations.
3. Use truth tables for equivalent statements, symbolic arguments, Euler diagrams and syllogistic arguments.

C.   Unit III – Numeration and Number System:
1. Learn Early numeration systems, place-value systems, an different base systems of numbers.
2. Learn about prime numbers and divisibility.
3. Additional Topics from number theory – perfect numbers, Mersenne numbers, etc..

D.   Unit IV – Geometry and Graph Theory
1. Learn the concepts of points, lines, planes, and angles.
2. Compute perimeters, areas and volumes.
3. Learn basic graph theory – Euler and Hamiltonian circuits
4. Learn about map coloring and how maps become graphs.

III.   Evaluations

There is a challenge exam available. If the student is interested, a $20.00 fee must be paid at the Cashier's Office of any campus. The test must be taken before the 12th. day of class.

It is suggested that four (4) unit tests be given. A comprehensive final exam will also be given. Homework quizzes, or other assignments may count toward the final grade at the instructor's discretion. Refer to instructors course requirements for specific details grades will be assigned according to the following.

A	90-100
B	80-89
C	70-75
D	60-69
F	below 60 or for cheating

The final grade would then be computed by averaging the 5 tests (4 unit tests and the final), and the grade for homework and quizzes. (Suggestion: Use the final grade to replace the lowest test grade, Not to drop the lowest test grade.)

I and W Grades: The student is responsible for completing the necessary forms for I or W (except as noted below). I and W grades may be assigned whenever appropriate deadlines are met. To be eligible for an I, the student must complete 80% of the course with at least a 75% average.. The proper forms must also be signed by both the student, and the instructor before being submitted to the registrar.

IV.   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).

V.   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.