Eastern Oregon University
College of Arts and Sciences
Course Syllabus, Spring 2013-2014

Number of Course: Math 112 **Title of Course**: PreCalculus

Catalog Description: In this course students experience a detailed treatment of trigonometric and inverse trigonometric functions designed to prepare them for calculus.

Credit Hours: Four

Instructor: Peter Chadwick
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Text: Precalculus, Mathematics for Calculus, 6e, by Stewart, Redlin, and Watson

Expanded Outline
This course will be an introduction to the family of trigonometric functions generally studied in calculus and other mathematical applications. Time permitting, we will also review exponential and logarithmic functions, which were studied in Math 111. The overall goal will be familiarity and comfort with the studied classes of functions, and the ability to recognize the essential features that make them so useful in mathematics.

Learning Outcomes: By the end of the term, the successful student will be able to:

1. Interpret the wrapping function and its relations to trigonometry
2. Evaluate the six fundamental circular functions at any elementary input
3. interpret trigonometric functions and recognize functions from the graphs
4. Use trigonometric functions to solve right triangles
5. Sketch graphs of variations of trigonometric functions and recognize functions from the graphs
6. Do the same for inverse trigonometric functions
7. Apply basic trigonometric identities to solve equations
8. Use elementary vector arithmetic with two- and three-dimensional vectors
9. Use and understand polar coordinates
10. Investigate arithmetic equivalent of the complex numbers and the complex plane
11. Translate between polar and rectangular coordinates in the complex plane
12. Find n^{th} roots of unity in the complex plane via De Moivre's formula

Course Requirements:
In order to receive a grade, the student must complete all exams. In addition the student is expected to attend class regularly, participate in discussion, and complete all quizzes and assignments. A portion of the work in this course may consist of small group projects and activities.

Calculator Policy:
As this course has an emphasis on reading, understanding, and translating the symbolic language of algebra, graphing calculators are not permitted on exams. Scientific calculators such as the TI-30series, or the Casio FX-300, etc, are permitted.

Exam Schedule:
Exam 1: Tuesday, April 15, 2014
Exam 2: Tuesday, May 6, 2014
Exam 3: Tuesday, May 28, 2014
Final Exam: Wednesday, June 11, 2014

Grading: Course grades will be determined by your total number of points based on the following distribution:

3 one-hour exams	300 points (100 points each)
8-10 quizzes/assignments	100 points
Final exam	120 points
Total	520 points

Academic Integrity: Eastern Oregon University places a high value upon the integrity of its student scholars. Any student found guilty of an act of academic misconduct (including, but not limited to, cheating, plagiarism, or theft of an examination or supplies) may be subject to having his or her grade reduced in the course in question, being placed on probation or suspended from the university, or being expelled from the university, or a combination of these. (Please see the Academic Honesty Code and the Student Conduct Policy in the online Student Handbook, chapter on Campus Citizenship, http://www.eou.edu/saffairs/handbook/honest.html, http://www.eou.edu/saffairs/handbook/condct.htm)

Postscript. The instructor reserves the right to deviate from any particular of this syllabus, within the constraints of EOU policy. In particular, class schedule, exam dates, and assignments may be altered during the course of the term.