

EASTERN WYOMING COLLEGE
Mathematics Department
Course Outline
Spring, 2013

Mathematics 1405-40/90: Pre-Calculus Trigonometry

Credit Hours: 3 semester hours
Time & Location: Internet

Instructor Information:

Instructor:	Cheryl Raboin	Bob Creagar
Office Location:	Faculty Office Link, Room 208	Faculty Office Link, Room 108
Office Phone:	1-800-658-3195 ext. 8295 532-8295	1-800-658-3195 ext. 8298 532-8298
E-Mail:	cheryl.raboin@ewc.wy.edu	bob.creagar@ewc.wy.edu

Catalog Description:

Topics include circular and trigonometric functions and their inverses, identities, and equations, complex numbers, and vectors and applications of these.

PREREQUISITE: MATH 1400 with a grade of C or better, or appropriate score on mathematics placement exam.

Rationale:

This course is offered to meet requirements for several programs at Eastern Wyoming College; it also fulfills a QA requirement at the University of Wyoming.

Resources:

Before purchasing your textbook, please read the following purchasing options.

1. *Trigonometry by Ratti & McWaters*, bundled with MYMathLab Student Access Kit
Authors: Ratti & McWaters, Publisher: Addison Wesley, 2010 ISBN with MyMath Lab Student Access Kit: 0321614704
2. MathLab only (Can be purchased either through the EWC bookstore or online.) ISBN: 032119991X

Course Objectives:

At the conclusion of this course the student should be able to:

1. graph trigonometric functions.
2. verify identities.
3. solve trigonometric equations.
4. solve word problems involving trigonometry.

Course Content:

Chapter 1: Trigonometric Functions

- 1.1 Angles
- 1.2 Triangles
- 1.3 Trigonometric Functions
- 1.4 Reference Angles
- 1.5 Fundamental Trigonometric Identities

Chapter 2: Right Triangle Trigonometry

- 2.1 Trigonometric Functions of an Acute Angle
- 2.2 Solving Right Triangles
- 2.3 Additional Applications of Right Triangles

Chapter 3: Radian Measure and circular Functions

- 3.1 Radian Measure
- 3.2 Applications of Radian Measure
- 3.3 The Unit Circle and Circular Functions
- 3.4 Angular and Linear Speed

Chapter 4: Graphs of the circular Functions

- 4.1 Graphs of Circular Functions
- 4.2 Amplitude and Period
- 4.3 Translations of the Graphs of Circular Functions

Chapter 5: Trigonometric Identities

- 5.1 Verifying Identities
- 5.2 Sum and Difference Identities
- 5.3 Double-Angle and Half-Angle Identities
- 5.4 Product-to-Sum Identities

Chapter 6: Inverse Functions and Trigonometric Equations

- 6.1 Inverse Trigonometric Functions
- 6.2 Trigonometric Equations I
- 6.3 Trigonometric Equations II

Chapter 7: Applications of Trigonometric Functions

- 7.1 The Law of Sines
- 7.2 The Law of Sines: Ambiguous Case
- 7.3 The Law of Cosines
- 7.4 Area of a Triangle

Tentative Test Dates:

Chapter 1 & 2 Test	Friday, February 8
Chapter 3 Test	Friday, February 22
Chapter 4 Test	Friday, March 8
Chapter 5 Test	Friday, April 5
Chapter 6 Test	Friday, April 19
Chapter 7 Test	Friday, May 3

The final must be completed by Wednesday, May 8.

Attendance:

A student at Eastern Wyoming College is expected to attend all sessions of each course in which he/she is enrolled. Active participation in all scheduled learning activities is essential for the student to satisfactorily achieve the educational objectives of any course. An instructor is authorized to withdraw a student from a course whenever:

- a) the student's absences in the course exceed 20% (twenty percent) of the scheduled sessions for the semester, or
- b) the student has been absent 6 (six) consecutive class hours in the course, or
- c) the student has not completed 20% (twenty percent) of the assigned learning activities.

A student who is withdrawn from a course on or before the school's official last day to drop classes will receive a grade of W (Withdrawal) for the course. A student who is withdrawn after the official last day to drop classes will receive either a grade of F (Failure), a grade of IW (Institutional Withdrawal), or a grade of W (Withdrawal) for the course. (Eastern Wyoming College Catalog, page 44)

STUDENTS WILL NOT BE WITHDRAWN FROM CLASS BY THE INSTRUCTOR AFTER THE DROP DEADLINE.

Course Expectations

Evaluation Criteria

All written homework, CourseCompass homework, and tests may be taken earlier than the due date. Homework will be graded and returned as it is received. However, tests will not be graded and returned until after all tests have been received.

Weekly Discussion (70 points total)

Each student is required to make a non-trivial posting (at least once a week beginning September 3) such as a question from the homework, a solution to a classmates inquiry, or a math related topic. This will be worth 5 points per week.

Be sure to read the Online Etiquette section in the "Get Started" materials. The instructors reserve the right to delete posts which they believe are inappropriate.

CourseCompass Homework (153 total points)

CourseCompass can be accessed through the installation of the MyMathLab Student Access Kit. The electronic homework assignments on CourseCompass will provide practice problems to help you understand the major concepts for the course. Each problem is worth ½ point. Check the calendar for due dates.

Written Homework (266 total points)

There will be ten (10) homework assignments. Due dates are posted on LancerNet under the calendar file which provides a suggested pace for the course. Homework assignments must be submitted on or before the due date. Homework will not be accepted late. Each problem is worth 1 point.

FORMAT FOR WRITTEN HOMEWORK:

1. Use Homework Coversheet.
2. Copy the problem (except for story problems), then work it step by step. Work must be done in a neat and orderly manner with the answer "boxed in."
3. Work problems in a vertical manner.
4. Graphs must be done on graph paper. (Graph paper may be downloaded from LancerNet under Shared Files.)
5. Homework may be submitted in one of the following ways: fax, U.S. mail, hand deliver, or scan and send as an e-mail attachment or submit on the assignment page. (If you are submitting your assignments electronically, please use pdf formatting. This is the easiest way to grade and return homework.)

Tests (750 total points)

There will be 6 chapter tests each worth 100 points and a final worth 150 points. Test must be administered by an approved proctor. The tests must be completed on or before the dates listed below. These dates can also be found on LancerNet under assignments and on the calendar.

Standards for Course Work

Participation A meaningful learning experience requires each person to have respect and consideration for others. It is not possible to provide an inclusive list of all disrespectful, disruptive behaviors. The mature college student will recognize the following as being unacceptable:

negatively challenging an instructor online (make an appointment to discuss conflicts privately or through e-mail)

use of disrespectful language in online discussions or e-mail

There will be 1250 total possible points for the course.

Work	Points available
6 Chapter Tests (each worth 100 points)	600
CourseCompass Homework	153
Written Homework (including Assignment 0)	277
Weekly Discussions	70
Final Exam	150
TOTAL	1250

Grades will be calculated based on the following percentages:

Letter Grade	Points
A	1125 < A < 1250
B	1000 < B < 1124
C	875 < C < 999
D	750 < D < 874
F	below 750

Communication Skills: Graduates will be able to understand and communicate ideas and information in written and spoken English that reveals a mastery of terminology appropriate to their disciplines.

Analytical and Quantitative Reasoning: Graduates will be able to solve problems through critical thinking involving analytical and quantitative reasoning at a level appropriate to their disciplines.

Technology Skills: Graduates will be able to demonstrate competence using technology appropriate to their disciplines.

Social Awareness: Graduates will be able to demonstrate an awareness of the relationship between the individual and the world.

Information Literacy: Graduates will be able to locate, evaluate, and use information effectively.

Safety:

If you have a personal health problem or limitation of which I should be aware, please advise me of this personally, as soon as possible after the first class meeting.

In the case of severe winter weather, classes may be dismissed. An announcement will be made throughout the campus (if classes are in session) or the message will be broadcast over the radio stations KGOS and KERM in Torrington during early morning hours. Off-campus students should use sound judgment before attempting to reach campus during severe weather.

Please note the evacuation plan posted in this college classroom in the event of fire, tornado or other disaster. In the event of an accident, an accident report form must be completed.

American with Disabilities:

Eastern Wyoming College is committed to providing reasonable accommodations for “qualified individuals with disabilities.” If you are a person with a disability that qualifies under the Americans with Disabilities Act (ADA), please notify your instructor or Mr. Tom McDowell in the President’s Office complex as soon as possible so that arrangements for accommodations may be made.

Disclaimer:

Information contained in this syllabus was to the best knowledge of the instructor, considered correct and complete when distributed for use at the beginning of the class. However, this syllabus should not be considered a contract between Eastern Wyoming College and the student. The instructor reserves the right, acting within the policies and procedures of E.W.C., to make changes in course content or instructional techniques without notice or obligation.