Math 112Z: Precalculus II - Trigonometry

Spring 2024 – Section 101

**CRN:** 61291

**Credit hours**: 4

**Instructor:**...., email: ....

**Office:** ...., telephone: ....

**Office hours:** ....

**Time and place:** ....

**Canvas:** ....

**Textbook**: “*PreCalculus*” by Stitz and Zeager, available for free at

<https://stitz-zeager.com/szprecalculus07042013.pdf>

**Prerequisite**: Math 111Z or equivalent.

**Course description:** A course primarily designed for students preparing for calculus and related disciplines. This course explores trigonometric functions and their applications as well as the language and measurement of angles, triangles, circles, and vectors. These topics will be explored symbolically, numerically, and graphically in real life applications and interpreted in context. This course emphasizes skill building, problem solving, modeling, reasoning, communication, connections with other disciplines, and the appropriate use of present-day technology.

**Learning Outcomes**: At the end of this course, students will be able to:

1. Translate among various systems of measure for angles including radians, degrees, and revolutions.
2. Represent, manipulate, and evaluate trigonometric expressions in terms of sides of a right triangle and in terms of the coordinates of a unit circle.
3. Graph, transform, and analyze trigonometric functions using amplitude, shifts, symmetry, and periodicity.
4. Manipulate trigonometric expressions and prove trigonometric identities.
5. Solve trigonometric equations using inverses, periodicity, and identities.
6. Define, represent, and operate with vectors both geometrically and algebraically.
7. Apply the law of sines and the law of cosines to determine lengths and angles.
8. Use variables, trigonometric functions, and vectors to represent quantities, create models, find solutions, and communicate an interpretation of the results.
9. Determine the reasonableness and implications of mathematical methods, solutions, and approximations in context.

**Grading components**:

Homework:

Quizzes:

Class participation:

Midterm:

Final exam:

**Means of assessment**:

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* **Homework**:
* **Quizzes**:
* **Class participation**:
* **Midterm Exam:**
* **Final exam:**

**Grade lines:** the course grade lines will not be harder than the standard grade lines: A 10093%, A- 92.99-90%, B+ 89.99-87%, B 86.99-83%, B- 82.99-80%, C+ 79.99 - 77%, C 76.99-73%, C- 72.99-70%, D+ 69.99-67%, D 66.99-63%, D- 62.99 - 60% and F *<* 60%.

**Other Learning Resources:**

* The Learning Center at Loso Hall 234 offers free tutoring service, both physical and virtual. Visit <https://www.eou.edu/lcenter/> for appointment.
* The Writing Center at Loso Hall 234 provides a place, both physical and virtual, where every EOU writer can find an interested, responsive reader. Go to eou.mywconline.com/ to schedule an appointment with the Writing Center.
* EOU’s Library has many good books and ebooks to check out: [https://library.eou. edu/](https://library.eou.edu/)

**Academic Misconduct Policy:**

Eastern Oregon University places a high value upon the integrity of its student scholars. Any student found responsible for an act of academic misconduct (including but not limited to cheating, unauthorized collaboration, fabrication, facilitation, plagiarism or tampering) 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 a combination of these.

**Students with Disabilities policy:**

Any student who feels he or she may need an accommodation for any type of disability must contact the Disability Services Office in Loso Hall, Room 234. Phone 541-962-3081.

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