Math 111Z: Precalculus I - Functions

Fall 2023 – Section 101

**Course number:** 30889

**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 095 or equivalent.

**Course description:** A course primarily designed for students preparing for trigonometry or calculus. This course focuses on functions and their properties, including polynomial, rational, exponential, logarithmic, piecewise-defined, and inverse functions. 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. Explore the concept of a function numerically, symbolically, verbally, and graphically and identify properties of functions both with and without technology.
2. Analyze polynomial, rational, exponential, and logarithmic functions, as well as piecewisedefined functions, in both algebraic and graphical contexts, and solve equations involving these function types.
3. Demonstrate algebraic and graphical competence in the use and application of functions including notation, evaluation, domain/range, algebraic operations and composition, inverses, transformations, symmetry, rate of change, extrema, intercepts, asymptotes, and other behavior.
4. Use variables and functions to represent unknown quantities, create models, find solutions, and communicate an interpretation of the results.
5. 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**:

* **Homework**:

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* **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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