Math 252: Calculus II

Winter 2024 – Section 101

**CRN:** 68075

**Credit hours**: 4

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

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

**Office hours:** ....

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

**Canvas:** ....

**Textbook**: “*Essential Calculus*”, 2nd Edition by James Stewart. **Prerequisite**: Math 251 with a grade of C- or better.

**Course description:** Integral Calculus including the definite integral, the fundamental theorem of Calculus, area between curves, volumes by slicing, L’Hospital’s Rule, the Calculus of the exponential and logarithmic functions, techniques of integration, improper integrals and arc length.

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

1. Find areas using Riemann Sums;
2. Evaluate definite and indefinite integrals of various functions including exponential, logarithmic, and trigonometric functions using various techniques including, substitution, integration by parts, trig substitution, and partial fraction decomposition;
3. Determine if functions are one-to-one and find their inverse;
4. Demonstrate an understanding of the Fundamental Theorem of Calculus;
5. Accurately apply L’Hospitals Rule;
6. Evaluate volumes of three dimensional objects using various techniques including disks, washers, and shells;
7. Evaluate arc length;
8. Determine the area bounded by two curves;
9. Solve simple differential equations.

**Grading components**:

Homework:

Quizzes:

Labs:

Midterm:

Final exam:

**Means of assessment**:

* **Homework**:
* **Quizzes**:

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* **Labs**: it is not always feasible to sketch graphs or compute integrals by hand. A mathematical software can be very useful in visualizing a function and computing tricky integrals (exactly or approximately). This class will use a powerful mathematical software called Mathematica for computation and visualization purposes. No programming experience is required.
* **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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