Math 251DIFFERENTIAL CALCULUSSpring 2019

Instructor: Rosanna Overholser, 178 Boivin Hall, 885-1475, rosanna.overholser@oit.edu

Web Page: http://math.oit.edu/~overholserr Please check this site frequently for updates to course materials and calendars. I will primarily use this site, using Blackboard only for recording grades.

Office Hours: 4-4:50 MWF, 11-11:50 Th. and by appointment.

Text: Calculus: Early Transcendentals, 3nd ed, by Briggs, Cochran and Gillett. **You will also need at least a scientific calculator** (with logarithm and exponential functions). You may use a graphing calculator for homework assignments, but one is not required for the course. If you do not already own a graphing calculator, you can use an online resource such as Desmos (www.desmos.com/calculator.). It is against departmental policy to use a TI-89 or other calculator with a computer algebra system in this course.

Course Goals and Objectives: After completing this course, students will be able to

- 1. Understand limits and continuity from the graph of a function.
- 2. Understand limits from the formula of a function without a graph.
- 3. Understand the concept and mathematical definition of a derivative.
- 4. Use the rules of differentiation to find derivatives explicitly and implicitly.
- 5. Use derivatives to solve applied problems.

Students will also communicate mathematical ideas using correct and appropriate notation.

Grading: Your grade will be based on your scores on exams, quizzes, and homework.

- *Midterm Exams:* There will be three exams given during the term. See the schedule at the end of this syllabus for exam dates. Make-up exams can be given for previously arranged absences if you have a good reason to miss an exam. No formula sheets or calculators are allowed unless permission is explicitly given on the exam.
- *Final Exam:* The final will be given during the time period listed in the schedule below. It will be comprehensive. The final MUST be taken at the designated time, so make all travel arrangements accordingly.
- *Quizzes:* A quiz will be given on weeks without exams (generally on Mondays: see the daily calendar on my website). There will be no make-up for missed quizzes, regardless of the reason. Quizzes will be held during the first 10 minutes of class. No formula sheets or calculators are allowed unless permission is explicitly given on the quiz.
- *Homework:* Exercises from the textbook will be assigned and **collected weekly**, at the start of a quiz or **midterm exam**. See the homework expectations on the next page for additional information on assignments. Late homeworks will not be accepted.

Note: on Wednesday April 10th the first homework assignment is due and the first quiz will be given.

Grades will be computed from the above as follows:

- 50% of your grade will be determined by the average of the three midterm exam scores.
- 20% of your grade will be determined by your final exam score.
- 15% of your grade will be determined by your highest 6 (out of 7) quiz scores.
- 15% of your grade will be determined by your highest 7 (out of 9) homework scores.

Letter grades will be assigned using the scale $90-100\% \Rightarrow A$, $80-89\% \Rightarrow B$, $70-79\% \Rightarrow C$, $60-69\% \Rightarrow D$, and below 60% is an F.

Other Things of Importance:

• Incomplete Grades: An incomplete grade can only be assigned to you under the following circumstances:

1. You have/had a grade of 70% or better (including zeros for any work not done) by the date to withdraw with a W.

2. You have a SERIOUS problem that begins after the withdraw date and prevents you from being able to complete the term.

An incomplete grade will definitely not be assigned in the event that you are not performing well in the course and fear that you may not obtain a passing grade!

• Disabilities: Students with a documented disability who require assistance or academic accommodations should contact the office of Disability Services immediately to discuss eligibility. Disability Services staff are located on both the Klamath Falls and Wilsonville campuses, however arrangements can be made to meet with a student on any campus. Meetings are by appointment only, so please contact the Disability Services office at the campus closest to you: Klamath Falls (541) 885-1790 and Portland-Metro (503) 821-1305. Specific information and Disability Services forms can be found at www.oit.edu, then go to "Academics" and click on "Student Success Center" and then "Disability Services." This link leads to the department's website: http://www.oit.edu/academics/ssc/disability-services

Calendar: Below are some important dates for the term.

April 1st - Classes begin

April 12th - Last day to withdraw without a "W"

April 26th - Exam One

 $\mathit{May}\ 15th$ - $\mathbf{Exam}\ \mathbf{Two}$

May 17th - Last day to withdraw with a "W" from this course

May 27th - Holiday

June 5th - Exam Three and HW 9

Wednesday, June 13th, 10-12pm - Final Exam (in our regular room)

Homework Expectations:

Homework assignments will usually consist of exercises from the textbook. In order to do the exercises you will usually need to read some examples in the book, review your notes from lecture, or recall an in-class activity.

- Assignments will be posted on class web page.
- Assignments are **due weekly**, at the start of class the day of a quiz or midterm exam. If you are not able to attend class, please leave your assignment in my mailbox outside Boivin 170 BEFORE 3pm.
- The exercises will usually be taken from the textbook, so the answers are in the back of the book. You should check every answer and, if it not correct, attempt to find and correct your errors.
- Because you may check your answer to many of the assigned problems in the back of the textbook, the assignment score will be based primarily on completeness, correctness and neatness/organization of your solution. For each exercise, you must communicate not only the answer but also the important steps needed to arrive at the answer. When deciding on the level of detail to show for a particular exercise, consider whether you have included enough information so that if one of your classmates read your solution, they would understand how you arrived at the answer.
- You must write your name, Math 251, and the assignment number on each assignment.
- Axes of graphs should be drawn with a straightedge, and a scale should be indicated on each axis. You must do these things in order to receive full credit.