Math 172 Section 005C – Calculus II (4 credits)

Spring 2020   M 9:10 AM-10:10AM & TTh 9:40 AM-11:10 AM   C-246

Instructor: Yanting Liang   **E-mail:** liangy@uwosh.edu
Office Hours: M 10:15 AM-12:15 PM, TuTh 8:30 AM-9:30 AM or by appointment
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Course Description:
Techniques of integration, improper integrals, elementary differential equations and mathematical modeling, sequences and series, Taylor series, and parametric equations. Prerequisite: Math 171 with a grade of C or better.

Required Materials:
Calculus: Early Transcendentals by James Stewart. This book is also online and is included with Webassign.
Class Key: uwc 4034 5080.

Topics:
Chapter 7 – Techniques of Integration
Chapter 8 – Further Applications of Integration
Chapter 9 – Differential Equations
Chapter 10 – Parametric Equations and Polar Coordinates
Chapter 11 – Infinite Sequence and Series

Learning Outcomes:
Upon successful completion of the course, students are expected, but are not limited, to have the ability to do the following.

- Communicate problem solutions, interpretations, and ideas and techniques of this course in clear and well-organized written form, including the proper use of notation.
- Evaluate indefinite, definite and improper integrals using various techniques of integration.
- Set up and solve mathematical models involving ordinary differential equations.
- Understand the definitions of sequences, series and alternating series.
- Compute limits of sequences.
- Test series for convergence using integral and comparison tests.
- Determine absolute convergence using ratio and root tests.
- Understand the definition of power series and find the radius and interval of their convergence.
- Represent functions as power series including Taylor and Maclaurin's series.
- Understand the calculus of polar and parametric curves.

Calculator:
The TI-83 and TI-84 calculators are required. No calculator with computer algebra systems (CAS) should be used. No cell phone or other electronic device will be allowed.

Homework:
Homework will be assigned every Tuesday and Thursday. You have 100 attempts on each online homework question. Written homework will be assigned for specific topics. Tuesday homework will be due at the beginning of Thursday class, and Thursday homework will be due at the beginning of Monday class. Late homework will NOT be accepted. Your three lowest homework scores will be dropped.

Quizzes and Exams:
Under normal circumstances, there will be a weekly 15-minute quiz on every Thursday. There will be NO make-up for missed quizzes. However, the worst two will be dropped.

There will be three exams. The following is a tentative schedule for exams (subject to change):
Exam 1: 5th week
Exam 2: 10th week
Final exam: 14th week

Exams will be closed notes/closed book. If you CANNOT come to the exam, please let me know BEFORE the exam, or within 24 hours after the exam in case of emergency. A comprehensive makeup exam will be given only for those students who missed exams with an acceptable reason and my permission.

Participation:
You are also graded on participation. If you cannot make it to class or you have to leave early, you should let me know before class and get the notes from your classmates after class. What is participation?
-Getting to class on time
-Taking notes
-Paying attention in class
-Asking or answering questions

Activities such as disrupting class, sleeping in class, using laptop, etc. will result in a zero for the day.

Attendance will be taken daily. Each student is given 1 grace absence. After that, each absence will result in the loss of 20% of the participation grade. Therefore, if you miss six or more classes, you will receive 0% on participation. Students will be given credit for attendance when they have excused absences. An excused absence MUST be asked for, in writing (e-mail is acceptable), BEFORE the class or within 24 hours after the class in case of emergency, and supporting material must be submitted. Two unexcused tardies equals one unexcused absence.

Grading:

A: 93% to 100%   B+: 86% to 90%   C+: 74% to 78%   D+: 64% to 67%

A-: 90% to 93%   B: 82% to 86%   C: 70% to 74%   D: 60% to 64%

                               B-: 78% to 82%   C-: 67% to 70%   F: <60%

Homework	15%
Quizzes	15%
Participation	5%
Midterm Exams	40%
Final Exam	25%

Special Accommodations:

If you need special accommodations, please contact me and provide me with a proper documentation early in the semester.