

06, 10-MATH 261 - Calculus I

Spring 2020

Syllabus

INSTRUCTOR: DR. Lanzhen Song

OFFICE: Hume 204

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OFFICE HOURS: MW 10 -11am, TTh3:45 - 4:45pm

TEXT/SOFTWARE:

- Calculus Early Transcendentals + MyMathLab by William Briggs & Lyle Cochran; 3rd ed; ISBN: 9780134763644.
- **Mathematica (do not purchase)** – available on the computers in Hume & Weir Hall or install on your computer using the university site license.

LEARNING OUTCOMES:

- This course covers differentiation and its applications. We will cover Chapters 2, 3, and 4. The content includes, but is not limited to, limits and rates of change, continuity, derivatives, derivative rules, higher derivatives, implicit differentiation, and applications of differentiation. Math 261 will prepare students for higher level calculus along with other courses and enhance critical thinking and analytical reasoning abilities.

HOMEWORK

- Homework will be assigned for each section of material covered and will count for a total of 100 points.
- Homework assignments will be done on the computer using the MyMathLab courseware.
- Homework must be submitted by 11:59 p.m. on the due date for full credit.
- Homework assignments may be submitted after the due date for half credit until **Sunday, May. 3th**.
- Homework can be repeated until 100% completion. No homework assignments will be dropped.
- When working an assignment after the due date, only work problems that you have previously gotten wrong OR not attempted. **Working a problem you got correct prior to the due date will actually lower your score.**

TESTS and FINAL EXAM

- There will be four major tests during the semester. Each test will count 100 points (400 points total).
- The lowest test grade will be replaced by the final exam percentage, if it is higher.
- If a test is missed for ANY reason, a grade of 0 will be given. NO make-up tests will be granted.
- Any student who will miss one of the four tests because of an official University function must reschedule and take this test at a time BEFORE the test is scheduled.
- The final exam is comprehensive and will count 200 points.

FINAL GRADE:

- The cumulative total for the course is 700 points. The following point scale will be used to determine your final grade:

Grade	<u>Points Necessary</u>	
A	630 to 700	(90%)
A-	616 to less than 630	(88%)
B+	602 to less than 616	(86%)
B	560 to less than 602	(80%)
B-	546 to less than 560	(78%)
C+	532 to less than 546	(76%)
C	490 to less than 532	(70%)
D	420 to less than 476	(60%)
F	below 420	

Note: A grade of C or better in Math 261 is required in order to take Math 262.

ATTENDANCE POLICY:

Regular class attendance is essential to learning and mastering the material. Attendance in this class will be recorded using the automated attendance scanners located in the classroom, and it will be reported to the University as per policy.

- Students are allowed five (5) absences in a MWF section without penalty.
- Students are allowed three (3) absences in a TTh or MW section without penalty.
- Students who accumulate more absences than are allowed for their specific section will have ten (10) points deducted from their final point total FOR EACH absence above the limit for their respective section.
- Students must take the responsibility of telling the instructor in advance if they must leave early, and must discuss with the instructor **immediately after class** if they entered the classroom after class has begun. It is the student's responsibility to make sure that their attendance record is correct.
- Attendance fraud is a form of academic dishonesty. Students engaging in fraud will fail the class and be reported to the university for further disciplinary action. If a student must leave class after signing in, it is the responsibility of the student to communicate with the instructor before class begins.

NOTE: Students who do not attend class within the first two weeks of the semester will be administratively dropped from the course.

TUTORING:

Free tutoring is available for Math 261. It will take place in J.D. Williams Library Commons (Monday to Thursday: 10 am to 7 pm, Friday: 10 am to 2 pm). **Tutoring will begin on Monday, January 27.** (The lab will not be open during the first week of classes.)

SI is available for Math 261 which provides students a way to get together with classmates and to improve their understanding of course material. The SI sessions will be led by a student who has already mastered the course material and has been trained to organize group sessions where students can meet to compare class notes, review and discuss important concepts, develop appropriate strategies for studying, and prepare for exams. Attendance is free and voluntary. Students may attend as many times as they choose.

CALCULATORS:

- Electronic calculators, cell phones, and iPods are prohibited on tests, quizzes, and the final exam. Use of such electronic equipment while taking a test, quiz, or final exam will be considered academic dishonesty and appropriate action will be taken.

CHEATING:

- The following statement is the policy of the Department of Mathematics regarding cheating:

Offenses: Cheating on any exam, quiz, homework, work to be completed in class; the use of calculators of any kind during tests or quizzes; theft or attempted theft of exam questions; use of prohibited technology; or possession of exam questions prior to the time for examination; shall all be offenses subject to appropriate penalties.

Penalties: The penalty for commission of any offense set out above is failure in the course and, subject to the approval of the Chancellor, dismissal or suspension from the University.

WITHDRAWAL DEADLINE: Monday, Mar. 2th

- After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency, as determined by the academic dean. Withdrawing from a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student has changed his or her major.
- After the course withdrawal deadline, courses dropped will be recorded on University records and the grade of W will be recorded if the student is not failing the course at the time of withdrawal; otherwise, the grade of F will be recorded.

DISABILITY ACCESS AND INCLUSION:

- The University of Mississippi is committed to the creation of inclusive learning environments for all students. If there are aspects of the instruction or design of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement, please contact the course instructor as soon as possible. Barriers may include, but are not necessarily limited to, timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files. If you are approved through SDS, you must log in to your Rebel Access portal at <https://sds.olemiss.edu> to request approved accommodations.

If you are NOT approved through SDS, you must contact Student Disability Services at 662-915-7128 so the office can: 1. determine your eligibility for accommodations, 2. disseminate to your instructors a Faculty Notification Letter, 3. facilitate the removal of barriers, and 4. ensure you have equal access to the same opportunities for success that are available to all students.

Tentative schedule of tests and coverages

Test 1(Thursday, 02/13/20)

Section 2.2: Definitions of Limits

Section 2.3: Techniques for Computing Limits

Section 2.4: Infinite Limits

Section 2.5: Limits at Infinity

Section 2.6: Continuity

Section 3.1: Introducing the Derivative

Section 3.2: The Derivative as a Function

Test 2 (Thursday, 03/05/20)

Section 3.3: Rules of Differentiation

Section 3.4: The Product and Quotient Rules

Section 3.5: Derivatives of Trigonometric Functions

Section 3.6: Derivatives as Rates of Change

Section 3.7: The Chain Rule

Test 3 (Tuesday, 03/31/20)

Section 3.8: Implicit Differentiation

Section 3.9: Derivatives of Logarithmic and Exponential Functions

Section 3.10: Derivatives of Inverse Trigonometric Functions

Section 3.11: Related Rates

Section 4.7: L'Hopital's Rule

Test 4 (Tuesday, 04/21/20. Section 4.2 is not include)

Section 4.1: Maxima and Minima

Section 4.2: Mean Value Theorem

Section 4.3: What Derivatives Tell Us

Section 4.4: Graphing Functions

Section 4.5: Optimization Problems

Final Exam

All Previous Sections

Section 4.6: Linear Approximation

Section 4.9: Antiderivatives

Pearson's Crystal Edwards is our new representative.

Crystal Edwards

Higher Education Sales Consultant

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