Math 2313: Calculus I
Course Syllabus

Disclaimer: This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor.

Instructor: Dr. Dennis Hall
Office: MCS 220H
E-mail: dennis.hall@angelo.edu
Phone: 325-486-5426

Office Hours: M 9:50–12:00
T 10:45–12:30
W 9:50–12:00
Th 10:45–12:30
F 9:50–11:00 & 12:00–1:00

Course Description: Differential calculus for functions of one variable including a study of limits, continuity, derivatives of different classes of functions, maxima and minima, concavity, related rates, and optimization problems.


Evaluation: Your grade for this course will be determined by your performance on tests, quizzes, and a final exam. Final grades will be based on a standard 10-point grading scale.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Three Tests</td>
<td>60%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>30%</td>
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Exams: There will be 3 in-class tests during the semester and a comprehensive final exam. Each test will count 20% of your final grade, and the final exam will count 30%. There are no make-ups for tests. If you miss up to one test for any reason, that test grade will be replaced by your final exam grade. You will receive a grade of zero for any test missed after the first.

Homework: Homework will be assigned periodically throughout the semester. Grades received on homework will count toward bonus points on the tests. It is encouraged that homework be worked on together in groups, or with tutors.

Quizzes: Quizzes will be given regularly throughout the semester, and usually worked in class. You will be notified of all quizzes by at least the class period before the quiz is to take place. Any quizzes assigned for work in class are to be completed individually.
Course Content: The following chapters and content will be covered.

1. **Functions and Limits:** Functions and Their Representations, A Catalog of Essential Functions, The Limit of a Function, Calculating Limits, Continuity, Limits Involving Infinity.


3. **Inverse Functions:** Derivative of Logarithmic and Exponential Functions, Indeterminate Forms and l'Hospital's Rule.

4. **Applications of Differentiation:** Maximum and Minimum Values, the Mean Value Theorem, Derivatives and Shapes of Graphs, Curve Sketching, Optimization Problems, Antiderivatives.

   **Optional Topics:** Exponential Functions (3.1), Inverse Functions and Logarithms (3.2), Exponential Growth and Decay (3.4), Inverse Trigonometric Functions (3.5), Hyperbolic Functions (3.6),

**Student Disability Services:**

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu

**Plagiarism:**

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](http://www.angelo.edu/opmanual/ – OP 10.19) in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

**Student Absence for Observance of Religious Holy Days:**

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence.
Incomplete Grade Policy:

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Academic Integrity:

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.
The College of Science and Engineering adheres to the Statement of Academic Integrity.

Copyright Policy:

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

Title IX:

Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

Michelle Boone
Director of Title IX Compliance
325-486-6357
michelle.boone@angelo.edu

General Policies Related to this Course:

All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog
Course Schedule: What follows is a tentative schedule, and is likely to change throughout the semester.

- Week 1: Essential Functions and their Representations
- Week 2: Limits of Functions and Limits Calculations
- Week 3: Limits and Continuity
- Week 4: Limits Involving Infinity and Review for Test 1
- Week 5: Test 1 and Rates of Change
- Week 6: Derivatives and Differentiation Formulas
- Week 7: Product, Quotient, and Chain Rules
- Week 8: Implicit Differentiation and Related Rates
- Week 9: Spring Break
- Week 10: Linear Approximations, Differentials, and Review for Test 2
- Week 11: Test 2 and L'Hospital's Rule
- Week 12: Mean Value Theorem and Shapes of Graphs
- Week 13: Curve Sketching and Optimization Problems
- Week 14: Comparison test, other convergence tests, power series, and review.
- Week 15: Review and Test 3.
- Week 16: Antiderivatives and Review for Final Exam.
- Week 17: Final Exam.