

Course Syllabus

MA 225 – Calculus Honors

University of Alabama at Birmingham
Fall 2026

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Office UH 4049
Office Hours Wednesday, 10:00-11:00
Course Site Canvas and Pearson MyLab Math

All dates and deadlines in this syllabus are listed in Central Time.

Course Information

Course MA 225 Honors
Credit Hours 4
Term Fall 2026
Platforms Canvas and Pearson MyLab Math
Required Text *Thomas' Calculus*, 15th Edition, Hass, Heil, Bogacki & Weir
(E-book via UAB First Day Access through Pearson MyLab Math)
Calculator TI-84 Plus / TI-84 Plus CE or similar
(CAS calculators, including TI-Nspire CAS, are **not** permitted on exams)

Course Description

Calculus I provides the foundation for higher-level mathematics as well as the basis for understanding many physical laws of the universe. Calculus is the study of change, allowing us to measure and predict how quantities vary, even on infinitesimal scales.

- **Unit 1:** Review of essential functions and their characteristics; limits; continuity; definition of the derivative; derivative rules.
- **Unit 2:** Applications of derivatives, including curve sketching, optimization problems, analysis of turning points, and antiderivatives.
- **Unit 3:** Substitution, Riemann sums, definite integrals, Fundamental Theorem of Calculus, natural logarithms as accumulated area, inverse functions, and exponential functions.

Prerequisites and Corequisites

Students should have successfully completed college-level Pre-Calculus and Trigonometry before attempting Calculus I.

Course Objectives

Upon successful completion of this course, you will be able to:

- Evaluate limits numerically, graphically, and algebraically.
- Analyze limits to determine appropriate evaluation methods.
- Use limits to determine end behavior.
- Determine intervals of continuity and classify discontinuities.
- Apply the Intermediate Value Theorem.
- Compute average rates of change.
- Compute derivatives using the limit definition.
- Apply the power, product, quotient, and chain rules.
- Differentiate trigonometric functions.
- Apply the Mean Value Theorem.
- Use derivatives to determine increasing/decreasing behavior.
- Apply first and second derivative tests.
- Use concavity to analyze graphs.
- Apply Newton's Method.
- Solve optimization problems.
- Compute antiderivatives using reverse derivative rules.
- Approximate area under a curve with Riemann sums.
- Interpret and evaluate definite integrals.
- Apply the Fundamental Theorem of Calculus.
- Use substitution to evaluate integrals.
- Analyze inverse functions.
- Differentiate logarithmic and exponential functions.

Course Grading and Policies

Grade Breakdown

Assignment / Activity	Value
Weekly Pearson Quizzes	10%
Weekly in class Quizzes	20%
Midterm 1	20%
Midterm 2	20%
Final Exam	30%
Total	100%
Projects (Extra credit)	10%

Grading Scale

Letter Grade	Final Course Percentage
A	90.00% and higher
B	75.00%–89.99%
C	62.00%–74.99%
D	50.00%–61.99%
F	0.00%–49.99%

Student Access to Grades

Grades will be updated throughout the semester and posted in Canvas. Pearson quiz grades are available shortly after submission. Manually graded assignments will typically be available within

one week of the due date.

Late Assignment Policy

Weekly problem sets and weekly Pearson quizzes are due on **Sunday nights at 11:59 p.m. Central Time**. A brief grace period is built in; students may still submit until approximately 1:00 a.m. Monday morning, after which assignments lock. Assignments emailed after the deadline will not be counted.

Assignments and Activities

Weekly in class quizzes 20%

In class quizzes will be two problems for 20 minutes every Wednesday, during the 9:00-9:50 class, unless there is Midterm exam. **There will be absolutely no makeup for the quizzes. However, I will pick only the top ten scores.**

Weekly Pearson Quizzes – 10%

Weekly quizzes are completed in Pearson and graded for correctness. Quizzes occur every week.

- Quizzes are not proctored.
- Three attempts allowed; only the best attempt counts.
- Due Sundays at 11:59 p.m. Central Time.
- **There will be absolutely no makeup for the quizzes. However, I will pick only the top ten scores.**

Midterms - 20% each

There will be two midterm exams, which will be offered on Wednesday for the two hours class time. The specific format will be in two parts - 8:00-8:50 a.m., followed by a break, then the second part 9:00-9:50. **Midterm Exam 1 will be on Wednesday, October 7th**, while the **second midterm will be on Wednesday, November 18th**. Specific topics that will be covered on the exams will be communicated before these dates.

Final exam - 30%

Final exam will be 150 minutes in duration and cumulative. **The exam will be on Wednesday, December 9th, 1:30-4:00, room TBD.**

Projects (for extra credit) - 10 %

Students will be given opportunity to work in groups (2-3 students) on projects related to aspects of calculus. These will be chosen well in advance, by end of October, in consultation with me. I will have some specific projects to offer, but students are encouraged to find their own (with my approval), related to their own interest and expertise. The final week of classes, right after Thanksgiving will be devoted to project presentations.

Make-Up Exam Policy

Make-up exams are not automatic. Valid reasons may include significant illness, hospitalization, family emergency, military or jury duty, a university-sanctioned activity, etc. Email me as soon as possible. Documentation may be required. Undocumented missed exams receive a score of 0.

Academic Integrity and Use of Resources

Students are expected to complete their own work. Submitting work that is not your own on any assessment is a violation of course policy and the UAB Academic Integrity Code.

Artificial Intelligence Use

Generative AI tools are **not permitted** for in class quizzes, exams, or any assessment where students are being evaluated on their own mathematical reasoning. For the Pearson quizzes, outside resources may be used for studying concepts.

Course Materials and Intellectual Property

Lectures and course materials (videos, notes, quizzes, exams, outlines, etc.) are protected by copyright. You may take notes and make copies for personal use. You may not reproduce or distribute course materials publicly without the instructor's expressed written consent.

Prepare for Success

Calculus is difficult to learn in large bursts immediately before an exam.

Recommended Weekly Routine:

1. Attempt the weekly problem material **before** starting the Pearson quiz.
2. Use office hours and the Math Learning Lab when you get stuck.
3. Complete the Pearson quiz before Sunday night so you have time for multiple attempts.

UAB Policies and Resources

Add/Drop and Course Withdrawal

Deadlines for adding, dropping, or withdrawing from a course are published in the UAB Academic Calendar. Students may drop and add courses online through BlazerNET until the drop/add deadline. To avoid academic penalty, a student must withdraw by the withdrawal deadline to receive a grade of W. Failure to attend class does not constitute a formal withdrawal.

Academic Integrity Code

All students are expected to pursue all academic endeavors with integrity, honor, and professionalism. Submitting work that is not your own may result in an Academic Integrity Code violation.

Student Conduct Code

The student conduct process upholds individual and community standards, fosters personal accountability, promotes personal growth, and cares for the well-being of all UAB community members.

DSS Accessibility Statement

Students with disabilities that qualify under the ADA and/or Section 504 should contact **Disability Support Services** at (205) 934-4205. If registered with DSS, please contact the instructor to discuss any necessary accommodations.

Title IX Statement

UAB does not discriminate on the basis of sex and prohibits sex discrimination in any program or activity as by Title IX. Inquiries may be directed to UAB's AVP & Sr. Title IX Coordinator, Dr. Andrea McDew, AB1030-0110, 1720 2nd Avenue South, Birmingham, AL 35294.

Divisive Concepts

This class may present difficult, objectionable, or controversial topics through an objective, scholarly lens designed to encourage critical thinking. No student will be required to assent to any concept considered "divisive" under Alabama law, nor penalized for refusing to do so.

Violence Prevention and Response Policy

Violence and threatened violence are prohibited by UAB. Each member of the UAB community has the responsibility to understand, prevent, and respond appropriately to campus/workplace violence.

Technology

Students are responsible for maintaining access to Canvas, Pearson MyLab Math. Access technical support through UAB Learning Technologies.

Canvas Alerts

The instructor may send Canvas alerts based on grades, assignment due dates, or scores. Alerts are sent to the student's UAB email address.

Student Academic and Support Services

- **One Stop Student Services:** academic records, financial aid, registration, student accounting.
- **Student Assistance and Support:** individualized assistance for safety, well-being, and self-advocacy.
- **Disability Support Services:** accommodations for equal access to programs and activities.
- **Vulcan Materials Academic Success Center:** tutoring, supplemental instruction, academic success services.
- **University Writing Center:** free writing assistance at any stage of the writing process.
- **UAB Student Health Services:** comprehensive, confidential primary healthcare.
- **Student Counseling Services:** a safe place to resolve issues interfering with personal and academic goals.
- **UAB Blazer Kitchen:** food and basic supplies for UAB students in need.
- **Office of Learning Technologies:** academic technologies and learning resources.
- **UAB Emergency Management:** official source of UAB information during emergencies or severe weather.

This syllabus is the official course guide, but dates and details may change if needed. Any changes will be communicated through Canvas. Students are responsible for reading Canvas announcements and checking UAB email regularly.