

UNIVERSITY OF ALABAMA AT BIRMINGHAM

COURSE SYLLABUS FOR MA125-CT; 31916

Spring 2021

Primary Instructor: Professor Lex G. Oversteegen

Contact information:

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Preferred Methods of Contact

Email is the preferred method of contact if you have questions. Please expect a response within 24 hours on weekdays; Emails received on Friday will be returned by Monday morning). Include MA125-CT in the subject line of your email for a faster response. I am available to meet with you virtually via Zoom by appointment during my virtual office hours (see below for my scheduled virtual office hours); the details concerning Zoom will be conveyed to you by email after you contact me.

Virtual Office Hours

Tuesday, Thursday 9–10 AM (or by appointment)

Instructional Method

Remote: The class will meet online using Zoom. This course is delivered via the Canvas Learning Management System, where you will interact with your classmates and your instructor. You can access the course through canvas; the Zoom ID is 923 5078 0046 and the password is 122333. Attendance on zoom FOR EVERY class is required! You will have to login and attendance will be monitored.

Teaching Time Zone

Central Time U.S.

UAB Policies and Resources:

Add/Drop and Course Withdrawal

- Drop/Add: **Deadlines for adding, dropping, or withdrawing from a course and for paying tuition are published in the Academic Calendar available online. Review the Institutional Refund Policy for information on refunds for dropped courses.**
- Withdrawal: **To avoid academic penalty, a student must withdraw from a course by the withdrawal deadline shown in the academic calendar and receive a grade of W (withdrawn). Failure to attend class does not constitute a formal drop or withdrawal.**

UAB United: Safe Entry to Campus

Please go to the UAB United website for guidance and resources related to our safe entry to campus in Fall 2020, including information on:

- Testing
- Academic resources and in-depth information
- Student Affairs resources to support all students (housing, dining, extracurricular activities, parking, etc.)
- Health and safety resources and recommendations for on and off-campus
- Information for graduate students, School of Medicine students, Post-Docs and International Students

All students should use the Student COVID-19 Entry Checklist to see what they have to do in order to enter the campus safely. Non-compliance with the required items will result in students not being able to remain on campus or participate in any in-person classes, meetings, jobs, extracurricular activities, and events.

Misconduct

- Academic Honor Code
<https://www.uab.edu/students/one-stop/policies/academic-honor-code>
- Non-Academic Student Code of Conduct
<https://www.uab.edu/students/conduct/>

DSS Accessibility Statement

Accessible Learning: UAB is committed to providing an accessible learning experience for all students. If you are a student with a disability that qualifies under Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, and you require accommodations, please contact Disability Support Services for information on accommodations, registration and procedures. Requests for reasonable accommodations involve an interactive process and consist of a collaborative effort among the student, DSS, faculty and staff.

If you are registered with Disability Support Services, please contact DSS to discuss accommodations that may be necessary in this course. If you have a disability but have not contacted Disability Support Services, please call (205) 934-4205, visit their website or their office located in Hill Student Center Suite 409. You can also contact them by email at dss@uab.edu,

COVID-19 Adjustments for Students: Attendance on Zoom is part of your grade in this course. Students concerned about their attendance as a result of COVID-19 should register with Disability Support Services.

UAB Disability Support Services (DSS) has established a process for UAB students to request temporary adjustments based on the impact of COVID-19. The process is similar to the traditional DSS registration procedures for accommodations based on disability. However, these requests will be referred to as "COVID-19 Related Temporary Adjustments". On the DSS website, there is a section (next to the traditional DSS application process) titled "Request COVID-19 Temporary Adjustments" where students can read the process and click to complete an application.

On the application, the student must complete an attestation and identify which of the following category(s) applies to their situation. Students will be allowed to submit documentation to support their requests.

- I am 65 or older
- My medical provider has determined that I am an individual who is considered high risk according to Centers for Disease Control and Prevention
- I care for or reside with an individual who has been determined to be high risk according to Centers for Disease Control and Prevention
- I have tested positive for COVID-19
- I am requesting adjustments for another reason

Any questions regarding this process should be referred directly to dss@uab.edu. For qualifying students, DSS staff will create a Notification of Temporary Adjustment Letter (PDF format) which will be provided to students. Students will share this letter, as needed, with instructors to request adjustments.

Title IX Statement

The University of Alabama at Birmingham is committed to providing an environment that is free from sexual misconduct, which includes gender-based assault, harassment, exploitation, dating and domestic violence, stalking, as well as discrimination based on sex, sexual orientation, gender identity, and gender expression. If you have experienced any of the aforementioned conduct we encourage you to report the incident. UAB provides several avenues for reporting. For more information about Title IX, policy, reporting, protections, resources and supports, please visit UAB Title IX webpage for UAB's Title IX, UAB's Equal Opportunity, Anti-Harassment, Duty to Report, and Non-Retaliation policies.

Mandatory Masks and Social Distancing Requirements

In accordance with CDC guidelines and for the health and wellbeing of all faculty, staff and students. Students, faculty and staff are required to wear cloth face coverings or face masks at all times and maintain social distancing (6 feet between individuals in traditional classrooms, or, in instructional laboratories and similar settings) while on the UAB campus. Instructors have the right to ask those who are not complying with these requirements to leave class in the interest of everyone's health and safety. In the event that a student refuses to comply with these requirements, the instructor has the right to cancel class.

Additionally, following other simple practices will promote good health in and out of the classroom, such as frequent and thorough hand washing, wiping down desks and seats with disinfectant wipes whenever possible, not sharing personal items such as pens and cell phones, and avoiding crowded areas and other enclosed spaces.

The UAB Blazer community views the adoption of these mandatory guidelines as a mark of good citizenship and respectful care of fellow classmates, faculty, and staff. Please visit the UAB United website for further information.

Food may not be consumed during class times in classrooms, but bottled water is permissible.

GuideSafe Event Passport Class Requirement

Faculty are required to verify all students who are present for in-person instruction have a current Event Passport.

The COVID-19 pandemic is an extraordinary situation requiring significant measures to create a safe educational community. UAB is using GuideSafeTM Event Passport to facilitate access to classrooms, meetings, events, or facilities having ten or more people. Attendees, including faculty, staff, and students, will complete UAB Healthcheck, a COVID-19 assessment tool, prior to entering their event. An Event Passport is issued based factors from your daily risk level as assigned by the UAB Healthcheck. After you have completed Healthcheck, press the "Passport" button to get your passport. This passport is good for 24 hours. Remember your passport number to access your passport later in the day. Each user is assigned a unique passport number indicating their status for the upcoming event that will show a "Clear" (Green) screen or "Not Clear" (Red) screen. After the 24-hour passport has expired, you will need to complete Healthcheck again. Each passport will have a time and date to ensure validity. Learn more at UAB GuideSafe Event Passport.

Course Information

Course number and title: Calculus I, MA125-CT; 31916, Spring 2021

Meeting times: MTWTh, 8–8:50 AM

Zoom ID: 923 5078 0046; password: 122333

Prerequisite: Grade of C or better in MA 106, MA 107 or equivalent. *Any student who has not fulfilled the prerequisite will be dropped from the class.*

Credits: 4 semester hours

Textbook: *Essential Calculus — second edition* by James Stewart, Thomson-Brooks/Cole, 2013, 2007; ISBN-13: 978-1-133-11229-7. Topics to be covered: Chapters 1 — 5.3.

Zoom office hours: By appointment

Important dates

First day of classes: January 19, 2021

Last day to drop without paying full tuition: January 26, 2021

Last day for fullterm withdrawal and 75% refund: February 1, 2021

Last day for fullterm withdrawal and 50% refund: February 15, 2021

Welness Day: March 16, 2021

Welness Day: April 14, 2021

Last day of class: April 23, 2021

Major exams (tests): Test I: near Monday, February 8; Sec. 1.1–1.6, 2.1–2.4;
 Test II: near Tuesday, March 2; Sec. 2.5, 2.8, 3.1–3.5;
 Test III: near Wednesday, March 24; Sec. 3.7, 4.1–4.5;
 Test IV: near Thursday, April 15, Sec. 3.6, 5.1–5.3.

(These dates are approximate and may be slightly shifted due to unforeseen circumstances.)

Final exam: Wednesday, April 28, 1:30–4:30 PM (ZOOM)

NOTE DATE AND TIME OF FINAL EXAM!!

Course policies

- Please make sure that you are able to receive e-mail through your Blazer-ID account. Official course announcements may be sent to that address.
- If your are contacted by the Early Alert Program, you should consider taking advantage of the services it offers. Various services to assist you are also listed in the *Student Resources* section of the *Blazernet* web site.
- If a test is missed due to a serious verifiable circumstance or official university business, the test grade will be replaced with the final exam score. Otherwise, if you miss an exam you will receive a zero score for this exam. In the unlikely event when two or more midterm tests are missed due to a serious verifiable circumstance or official university business, the matter will be resolved on the case by case basis in cooperation between the student, the instructor, and the coordinator of Calculus I

classes. In any case you **must** inform your instructor of such circumstances **before** the exam takes place.

- Calculators (without internet access) will be allowed during any of the tests or quizzes. In addition, students can bring one quick reference card to tests, including the final exam (i.e., a standard size 5" × 8"-index card; both sides can be used).

Methods of teaching and learning:

The men who try to do something and fail are infinitely better than those who try to do nothing and succeed. - Martin Lloyd Jones

- A large fraction (20%) of your grade will be determined by presentations and attendance (to understand what this means you must read the part of this syllabus entitled "How this class works").
- Class meetings of 50 minutes consisting of student presentations, lectures and discussions of examples and homework problems. Time also includes quizzes, and four in-class tests.
- Students are expected to undertake at least 10 hours of private study and homework per week.
- The online homework system WebAssign will **not** be used.

Assessment procedures:

- Student achievement will be assessed by the following measures:
 - **Regular online homework and quizzes. On line homework will be due on most Mondays.** Problems on tests are modeled after homework problems. Staying on top of homework is therefore extremely important. Quiz problems are similar to the homework problem sets. This allows students to gauge whether they are ready to work problems in a test situation. Homework and quizzes together count for 5% of the course average.
 - **Four in class tests** including short questions (Part I) as well as problems requiring in depth understanding (including word-problems). Partial credit is awarded where appropriate. Each test contributes 11% to the course average.
 - **Students' presentations** count for 15% of the grade. Normally, a student will present at most twice a week, and not more than three times a week (see the part of this document entitled "How this class works" for additional explanation).
 - **A 150-minute comprehensive final examination** including Part I and Part II type problems. The final contributes 31% to the course average.
 - **Attendance** in the course is crucial for your success and counts for 5% of the grade. You must login on Zoom for every class. If you are unable to attend class, you must email me **BEFORE** that class take place and bring/Email me a verifiable excuse later.
- Your course performance is your course average (including the final exam score). This is a number between 0 and 100.

- Your final grade is determined according to the following table:

Course performance:	88-100	75-87	62-74	50-61	below 50
Final Grade:	A	B	C	D	F

- In addition your grade maybe raised by a strong performance on the final exam (normally at most one letter grade).
- **MA125 CLASSES ARE NOT ELIGIBLE FOR PASS/FAIL GRADING.**

Tips:

- Past tests are available at www.math.uab.edu under Student Resources/Calculus Testbank.
- Help is available in the Math Learning Lab (HH 202); M–Th 9–8, F 9–5.
- By working steadily and regularly, you will increase your chances to succeed in this course.
- Remember, being a full-time student is a full-time job.

Sections to be covered:

Essential Calculus, second edition by James Stewart, Thomson-Brooks/Cole, 2013, 2007, ISBN-13: 978-1-133-11229-7.

- Chapter 1: 1.1 – 1.6.
- Chapter 2: 2.1 – 2.5 and 2.8.
- Chapter 3: 3.1 –3.7.
- Chapter 4: 4.1 – 4.5.
- Chapter 5: 5.1–5.3.

HOW THIS CLASS WORKS ¹

This class will be taught in a way that is likely to be different from mathematics classes you have encountered in the past. Much of the class will be devoted to students presenting solutions to homework problems and much of your grade will be determined by the amount of mathematics that you produce in this class.

I use the word produce because the best way to learn mathematics is by doing mathematics. Therefore, just as I learned to ride a bike by getting on and falling off, I expect that you will learn mathematics by attempting it and occasionally falling off!

You will be expected to work assigned problems from the book and present some of them to the class through Zoom. I urge you to seriously consider the value of becoming an independent thinker who tackles doing mathematics, and everything else in life, on your own rather than waiting for someone else to show you how to do things.

¹We are indebted to Professor Ted Mahavier, a pioneer of the problem-based approach to learning calculus, for the description of how this class works (for additional information go to www.jiblm.org).

A COMMON PITFALL

There are two ways in which students can approach this class. The first is to say, I will wait and see how this works and then see if I like it and put some problems up later in the semester after I catch on.

Think of the course as a forty-yard dash. Do you really want to wait and see how fast the other runners are? If you try every night to do the problems then you may get a problem (Yay!) and be able to present it to the class with pride and satisfaction. Alternatively, you will struggle with the problem, learn a lot in your struggle, and then watch someone else put it on the board. When this person puts it up you will be able to ask questions and help yourself and others understand it. And then you can say to yourself, “Ahhhh, now I see where I went wrong and now I can do this one and a few more for next class.”

If you do not try problems each night, then you will watch another student present problems. Most likely you will not quite catch all the details. Then, when you study for the tests or try the next problems, you will have only a loose idea of how to tackle such problems. Basically, you have seen it only once in this case. The first student saw it once when s/he tackled it on her/his own, again when either s/he put it on the board or another student presented it, and then a third time when s/he studies for the next test or quiz.

Hence the difference between these two approaches is the difference between participating and watching a movie. I hope you all will choose to participate and, as a consequence, will benefit the most from the class!

PRESENTING PROBLEMS

Let us put your mind at ease regarding this part of the class. First, by attending class everyday you will earn 5% of your course grade! Every problem you present pushes your grade higher. Here are some rules and guidelines associated with the board work.

- I will call for volunteers every day and will pick the person with the least presentations to present a given problem. You may inform me that you prepared a problem in advance (which I appreciate), but the problem still goes to the person with the least presentations on the day I call for a solution. **Note that I will only select students for presentations from those who have uploaded solutions on canvas for the relevant section.**
- Ties are broken randomly before the first test. Once the first test has been returned, ties are broken by giving precedence to the student with the lower last test score. A student who has not gone to the board on a given day will be given precedence over a student who has gone to the board that day.
- To present a problem on Zoom means to have written the problem statement up and to have uploaded a correct solution which uses complete mathematical sentences, and to have answered all students questions regarding the problem.
- Since you will be communicating with other students on a regular basis, here are several guidelines that will help you.
 - Most importantly, remember that the whole class is on your side and wants to see you succeed, so questions are intended to help everyone, not to criticize you.
 - When you speak, do not use the words obvious, stupid, or trivial.

- Do not attack anyone personally or try to intimidate anyone. Do not get mad or upset at anyone. If you do, try to get over it quickly.
 - Do not be upset when you make a mistake - brush it off and learn from it. Do not let anything go on the board that you do not fully understand. Do not say to yourself, I will figure this out at home.
 - Do not work together without acknowledging it at the board.
 - Do be polite and respectful.
 - Do let people answer when they are asked a question.
 - Do not use concepts we have not defined. Do not use or get examples or solutions from other books.
 - Do not try to put up a problem you have not written up. Do prepare arguments in advance.
 - Do learn from your mistakes.
 - Do refer to earlier results and definitions by number when possible.
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HOW TO STUDY EACH DAY

1. Read over your notes from class that day and the relevant section(s) of the textbook.
 2. Make a list of questions to ask me at the beginning of the next class. (I love these!)
 3. Review the recent problems.
 4. Work on several new problems and read the appropriate new section of the textbook.
 5. Write up as many solutions as you can and upload them on canvas so that you can copy these to the screen when you are presenting the solution to a problem.
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COMMON COURTESIES FOR ANY CLASS:

- Putting your head on your desk resting or sleeping during class is rude. If you need sleep, please go to your room or home - not to class.
 - If you need to leave class early, it is polite to tell the instructor before the class starts. Class attendance is expected.
 - Please login for class a few minutes early so that class can begin without interruption (and I know you are able to present a solution). If there is a problem, let the instructor know.
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