MA126-6D COURSE SYLLABUS

Term: Spring 2021

Instructor Information:

Course Instructor: Dr. Henghui ZOU

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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 and a slower response on weekends. Include " insert prefix, course number, and section code " in the subject line of your email for a faster response.

Office hours:: Monday and Wednesday: 1:00pm-2:00pm; you can also email for a private Zoom session.

Instructional Method:

Hybrid: This class will be a mixture of in-person and on-campus instruction and remote learning components. Students should be available on the days and hours listed in the Class Schedule. Students will be assigned which days to attend class in person. There will be a significant amount of out-of-classroom learning activities that replace scheduled class meeting time. This course is delivered both in person and via the Canvas Learning Management System, where you will interact with your classmates and your instructor.

Teaching Time Zone: Central Time

Course Information:

Course Number and Title: MA 126-6D, Calculus II

Meeting times: MW 2:30–4:20pm.

Meeting location: Hybrid/UH 1005

Prerequisite: Grade of C or better in MA 125 or equivalent.

Credits: 4 semester hours.

Textbook: *Essential Calculus, Second Edition* by James Stewart, Thomson-Brooks/Cole, 2013, Chapters 4–8,10.

Homework and Test Files: For each written homework assignment and test (including the final) you are required to submit a **single pdf file** in Canvas on or before the due time. A tablet computer is useful, but certainly not mandatory. Homework/test printouts and worksheets can be scanned to single pdf file using a mobile scanning app such as Adobe Scan.

Important dates:

First day of classes: Tuesday January 19, 2021.

Last day to drop/add classes: Monday January 26, 2021.

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Last day to withdraw with a "W": Friday April 23, 2021.

Last day of classes: Friday April 23, 2021.

Major exams (tests):
Test I: near Wednesday, February 10;
Sections: 4.4-4.5, 5.1 – 5.3, 5.6, 5.8, 6.1 – 6.3;
Test II: near Wednesday, March 3;
Sections: 6.5-6.6, 7.1–7.3, 7.6;
Test III: near Wednesday, March 24;
Sections: 8.1 – 8.7;
Test IV: near Monday, April 19;
Sections: 10.1–10.5, 10.7 – 10.8

The above dates and sections are tentative; precise dates and test section numbers will be announced in class a week or so before a test.

Final exam: 1:30–4:00pm Wednesday April 28, 2021.

UAB policies and Resources:

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 you are contacted by the Early Alert Program, consider taking advantage of their services; see *Student Resources* on the Blazernet website.
- The lowest weekly homework grade will be dropped to account for any missed assignments due to illness or any other circumstance.
- If a test is missed due to a serious verifiable circumstance or official university business, the test grade will be replaced with the properly rescaled final exam score. You must advise the instructor of such circumstances at the earliest possibility **before** the exam takes place.
- While calculators that do not have access to the internet are permitted, no books or notes will be allowed during the tests, except that one $8.5'' \times 11''$ sheet of your own construction may be used in each test/final.

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.

COVID-19 Adjustments for Students. 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 Birminghamis committed to providingan 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 reportthe incident.UAB provides several avenues for reporting.For more information about Title IX, policy, reporting, protections, resources and supports, please visit UAB Title IX webpagefor UABs Title IX, UABs 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 GuideSafe Event Passport to facilitate access to classrooms, meetings, events, or facilities having ten or more people. Attendees, including faculty, staff,and students, will completeUAB 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 eventthatwill 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 content guide:

Methods of teaching and learning.

- 110-minute class meetings consisting of lectures and discussions of examples and homework problems. Time for four tests is included.
- Students are expected to undertake at least 10 hours of private study and homework per week during the term.
- Time for a weekly tutorial designed is included to provide you with assistance with the homework assignment for the week. Late submissions will be graded for correctness, but will not count toward the course score.
- The online homework system Webassign will be used (look for more information below).

Aims of the course.
Upon successful completion of the course a student

- understands the concept of definite integral;
- is able to apply the definite integral to find volumes, work, and arc length;
- knows the basic techniques of integration;
- is able to apply Calculus concepts to problems in Physics and Engineering;
- understands the concept of a vector, can perform basic vector calculations, and is able to use vectors to describe lines and planes in space;
- understands the concept of vector-valued functions, and is able to use vector functions to describe parametric curves, tangent vectors and velocity;
- is able to determine the convergence/divergence of improper integrals, sequences, and infinite series; and
- can find power series representations of functions and use them for approximation, evaluation of integrals, and limits.

The understanding of a concept is demonstrated by an ability to solve pertinent problems related to that concept.

Course content.

- Basic techniques of integration including substitution, integration by parts, partial fractions and the use of tables.
- Applications of integration (area, volume, work).
- Vectors in three dimensions, their geometric and algebraic representation, dot product and cross product.
- Equations of lines and planes.
- Vector functions and parametric curves, tangent vectors, arc length, velocity and speed.
- Sequences and series, power series.

Assessment procedures:

- Student achievement will be assessed by the following measures:
  - **Online Homework.** Both online and written homework will be regularly assigned. Feedback is provided online when wrong answers are given. Students are encouraged to retake the homework problems (with randomly changed parameters) until they obtain correct answers. Online homework contributes 5% to the course average.
  - **Written Homework.** In addition to the online homework, regular written homework will also be assigned to be turned in for grading by the course assistant/instructor. Written homework 20% to the course average.
    Keep in mind that problems on tests are usually modeled after homework problems. Staying on top of homework is therefore extremely important.
  - **Class Attendance** The roll will be taken at the beginning of each class meeting. If you are unable to attend class, you must email me **before** that class takes place and bring **a verifiable excuse** later.
  - **Four tests** including short questions with no or limited partial credit (Part I) as well as problems requiring in depth understanding (including word-problems) for which partial credit is awarded where appropriate. Each test contributes 10% to the course average.
  - **A 150-minute comprehensive final examination** including Part I and Part II type problems. The final contributes 35% to the course average.
- 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

How to get started on Enhanced WebAssign:

(1) Go to *www.webassign.net* and click on *I HAVE A CLASS KEY* in the *sign in* link.

(2) Enter the following course key for MA 126-6D, 2:30pm–4:20pm:

uab 0561 4566

and proceed. (If prompted for your institution, enter *uab*)

(3) When prompted to purchase an access code, select "**...trial period**." (However, you must enter a 'permanent' access code within two weeks for you to continue using the system beyond the two-week trial period. The system will prompt you to enter your access code when the deadline approaches. Your book may have an access code bundled with it. You must use it.) **If you already have an active WebAssign account associated with this edition of the textbook, you may simply add this course to your account by using the above Course Key.**

(4) After your first registration, you can sign in as returning user.

(5) Should you run into technical problems Enhanced WebAssign provides technical support online and/or by phone.

https://webassign.com/support/student-support/

1-800-955-8275, option 1

Tips.

- Help is available in the Math Learning Lab, if you can't find me.
- Working steadily, regularly attending class, and asking lots of questions when you are stuck (a practice I strongly encourage !), all increase your chances of success.
- Ultimately, you are in charge of your mathematics education, but I am more than willing to help you chart a effective path through the Calculus wilderness.