

COURSE DESCRIPTION
CALCULUS I
MA 125–OA
SUMMER 2020

DEPARTMENT OF MATHEMATICS
UNIVERSITY OF ALABAMA AT BIRMINGHAM

Course Instructor: Professor Nikita Selinger
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Office Hours: After class, or email for appointment.
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Meeting times: MTWR , 8:00–9:30 AM

Meeting location: Zoom

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. Cengage Learning The Enhanced WebAssign Access code gives access to the e-book as well as to the online homework problems.

Important dates:

First day of classes: June 8, 2020

Last day to add: June 15, 2020

Last Date to Withdraw/Last Day of Classes: Friday, August 7, 2020

Major exams (tests): Test I: near Thursday, June 25 (1.1-1.6, 2.1-2.5);
Test II: near Thursday, July 16 (2.8, 3.1-3.7);
Test III: near Tuesday, Aug 04 (4.1-4.5, 5.1-5.3)

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

Final exam: Wednesday, August 12, 4:15 to 6:45 PM **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 you 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 you wish to request a disability accommodation please contact DSS at 934-4205 or at *dss@uab.edu*.
- 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:

- There will be 9 fast-paced weeks of section previews, classwork, assigned section readings, videos to be viewed, and homework in various forms. Time for three midterm tests is included. The final exam is in Week 10.
- Students are expected to be up-to date on the prerequisite precalculus material and devote enough time to the course to keep up the pace. Students are expected to undertake at least 10 hours of private study and homework per week.
- Students are expected to join Zoom sessions during the assigned class hours.
- The online homework system WebAssign will be used (more information below).

Assessment procedures:

- Student achievement will be assessed by the following measures:
 - **Regular online homework.** The online homework is administered through the Enhanced WebAssign System. Feedback is provided when wrong answers are given. Students are encouraged to retake the homework problems (with randomly changed parameters) until they obtain correct answers. A limited number (at most 3) of takes is allowed during the week in which the set is available. Staying on top of homework is extremely important as problems on tests and quizzes are modeled after homework problems. This allows students to gauge whether they are ready to work problems. Homework counts for 5% of the course average.

- **Quizzes and Written Homework Assignments.** The assignments will allow students to practice and gauge how well they understand the material and whether they are ready to work problems on a test. Quizzes and written homework assignments contribute 19% to the course average.
- **Three in-class tests** including short questions testing basic skills as well as problems requiring in depth understanding (including word-problems). Partial credit is awarded where appropriate. Each test contributes 17% to the course average.
- **A 150-minute comprehensive final examination** including Part I and Part II type problems. The final contributes 25% 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

- In addition your grade maybe raised by a strong performance on the final exam (normally at most one letter grade).

Tips:

- Past tests are available at <http://www.uab.edu/cas/mathematics/calculus-testbank>.
- Help will be available through the Mathematics Learning Lab through Zoom sessions with tutors as well as from the instructor and course assistant.
- Technical support is available at <https://www.uab.edu/elearning/help>.
- 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.

How to get started on Enhanced WebAssign:

- (1) Go to www.webassign.net and click on *I HAVE A CLASS KEY*.
- (2) Enter the following course key:

uab 0708 6138

- and proceed. (If prompted for your institution, enter *uab*)
- (3) When prompted to purchase an access code, select “... **trial period**” (Do not purchase an access code at this time. However, you must purchase an 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.)
 - (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.

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.

SUGGESTED PRACTICE PROBLEMS

- Section 1.1:** p. 8, Problems 1, 2, 4, 14, 22, 25, 48, 52
Section 1.2: p. 21, Problems 2, 14, 38, 48, 58
Section 1.3: p. 33, Problems 2, 4, 8, 12, 16
Section 1.4: p. 43, Problems 2, 10, 14, 22, 38, 50, 56
Section 1.5: p. 54, Problems 2, 4, 10, 20, 34, 38, 40, 44
Section 1.6: p. 67, Problems 2, 10, 14, 20, 32, 36, 42
Section 2.1: p. 80, Problems 4, 9, 16, 20, 28, 36
Section 2.2: p. 92, Problems 2, 6, 10, 14, 20, 34
Section 2.3: p. 105, Problems 2, 8, 10, 16, 22, 39
Section 2.4: p. 112, Problems 2, 4, 10, 14, 16, 42, 48, 57
Section 2.5: p. 120, Problems 2, 6, 12, 20, 22, 56, 58, 70
Section 2.8: p. 138, Problems 2, 6, 12
Section 3.1: p. 150, Problems 2, 4, 30, 36, 42, 50
Section 3.2: p. 157, Problems 2, 8, 14, 16, 18, 24
Section 3.3: p. 164, Problems 2, 6, 12, 22, 28
Section 3.4: p. 172, Problems 2, 8, 14, 22, 26, 34
Section 3.5: p. 180, Problems 2, 6, 8, 10, 12, 16, 27
Section 3.6: p. 187, Problems 1, 7, 9, 14
Section 3.7: p. 194, Problems 2, 10, 13, 16, 25
Section 4.1: p. 208, Problems 2, 6, 11, 13
Section 4.2: p. 221, Problems 2, 4, 12, 30
Section 4.3: p. 231, Problems 2, 8, 14, 24, 28
Section 4.4: p. 240, Problems 2, 6, 16, 22
Section 4.5: p. 247, Problems 8, 12, 14, 34, 46
Section 5.1: p. 259, Problems 3, 13, 17, 33, 35, 37, 41
Section 5.2: p. 268, Problems 1, 3, 13, 15, 23, 51, 59, 61
Section 5.3: p. 274, Problems 3, 7, 9, 23, 27, 45, 49