



MAA4211 syllabus

Advanced Calculus I

Section 3045 Fall 2019

Instructor

Scott McCullough

Course Content and Objectives

A rigorous treatment of the foundations of Calculus including the real numbers; metric spaces; continuity, differentiation; and sequences and series of functions. In addition to mastery of the course content, course objectives include reading, writing, and discovering proofs and constructing proofs and counterexamples in analysis.

Suggested Problems

Selected problems from the text will be assigned on a daily basis.

Homework and Quizzes

Nine or 10 homework problems will be assigned, collected, and graded. Late homework will not be accepted. There will also be two or three announced quizzes. There will be no make-up quizzes. Each homework and quiz will be worth 10 points. The best 10 of the homework and quizzes will be counted towards a homework score.

Exams

There will be three exams each worth 100 points based upon the Suggested Problems and Homework. The

There will be three exams each worth 100 points based upon the suggested questions and homework. The final exam will serve as a make-up.

Exam 1. Friday 20 September.

Exam 2. Wednesday 23 October.

Exam 3. Monday 25 November.

Make-up exams. Thursday 12 December, 10-11 am.

Grading

A course total will be computed by adding the exam and homework scores. Grades will then be assigned according to a straight scale:

90 – 100 A; 87 – 89 A-; 84-86 B+; 80-83 B; 77-79 B-; etc.

See [the current UF policy on assigning grade points](#).

Attendance

Attendance is recommended.

Additional Information:

Grades. Grading will be in accord with the UF policy stated at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. Also see [the current UF policy on assigning grade points](#).

Academic Honesty. The course will be conducted in accordance with the University honor code and academic honesty policy

*UF students are bound by The Honor Code Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code.” On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: **“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”** **The Honor Code** specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have questions or concerns please consult with the instructor.*

Accommodation for students with disabilities. Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this

presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Online Evaluations. “Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.”

Additional Information- Health and Wellness:

U Matter, We Care:

If you or a friend is in distress, please contact ummatter@ufl.edu or 352-392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center:

<https://www.counseling.ufl.edu>; 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS):

Student Health Care Center, 392-1161.

University Police Department:

392-1111 or 9-1-1 for emergencies, <http://www.police.ufl.edu/>

Additional Information- Academic Resources:

E-learning technical support

352-392-4357 (option 2)

Learningsupport@ufl.edu

Career Connections Center:

Reitz Union, 392-1601.

Career assistance and counseling, <https://career.ufl.edu>

Library Support:

<http://cms.uflib.ufl.edu/ask>

Tentative weekly schedule

Week 1, Review of sets, set operations and functions (2 homework problems).

Week 2, The real numbers and the least upper bound property (2 homework problems).

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Weeks 3-5, Metric space preliminaries. Exam I Review. (1 homework problem).
Weeks 6-8 Sequences. (5 homework problems).
Week 9. Cauchy Sequences.
Weeks 10-12. Compact Sets, Exam II Review, Exam II. (1 homework problem).
Week 13. Connected Sets. (1 homework problem).
Week 14-15 Continuous Functions, Review, Exam III.



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