



ADVANCED CALCULUS FOR PHYSICAL SCIENTISTS AND ENGINEERS 1, FALL 2019

Registration Information

Note: There are two different course numbers as indicated below.

Course: MAA4102

Section: 3043

5 Digit: 17789

Meeting time and place: M W F 4 LIT 127

Instructor: Louis Block

Course: MAA5104

Section: 6153

5 Digit: 17235

Meeting time and place: M W F 4 LIT 127

Instructor: Louis Block

Office Hours (in Little 478)

I will have regular office hours Monday periods 6 and 7, and Wednesday period 6. I will sometimes have extra office hours which will be announced in class.

Description and Goals

The primary goal of the course is to obtain a sound understanding of the basic mathematical concepts of calculus. A secondary goal is to improve the ability to reason carefully and creatively when dealing with mathematical material. The emphasis of the course is on theory and proofs.

We will cover the first four chapters of the text and some of chapter 5, as time permits. Topics include functions, sequences, limits, continuity and differentiation.

Text

Witold A. J. Kosmala, **A Friendly Introduction to Analysis**, second edition, Pearson Prentice Hall, Upper Saddle River, NJ 07458.

Course Notes

Advanced Calculus Chapter 1 Notes.

Who should take this course

The fundamental ideas of calculus play an important role in the physical sciences and engineering. For this reason, students in these areas may choose to take this course, even though no particular applications are discussed in the course. Students in mathematics, education, and other areas may also choose to take this course. However, students who intend to pursue graduate study in mathematics should not take this course. These students should take MAA 4211 instead.

Homework Assignments

The assignments will be added here, as the course progresses. These assignments will not be turned in for a grade. Students are expected to do the assignments as part of the preparation for the quizzes and exams. The quizzes will consist entirely on assigned problems.

Section 1.1, page 7, # 1, 2, 4, (all parts of each).

Section 1.2, page 18 – 20, # 3, 11, 13, 19, 20, (all parts of each).

Section 1.3, page 29 – 31, # 2 (parts b,c,d,j,p,s), 4 (parts a,d,f).

Section 1.4, page 35, # 1 (parts a,b,c).

Grades

Grades will be based on three exams and five quizzes given in class during the semester. There will also be an optional cumulative final exam. Each of the three exams during the semester will be worth 50 points. The quizzes will be worth 10 points each. The optional final exam will be worth 50 points, and will replace your lowest exam score or total quiz score. So there are 200 possible points. The optional final exam will be given during the regular final exam period for this section.

Grades will be assigned according to the following:

A: 180-200	A-: 175-179	B+: 170-174	B: 160-169	B-: 155-159
C+: 150-154	C: 140-149	C-: 135-139	D+: 130-134	D: 120-129

Tentative Schedule for exams and quizzes:

August 30 (Friday) : Quiz 1.

September 11 (Wednesday) : Quiz 2.

September 25 (Wednesday) : Exam 1.

October 16 (Wednesday) : Quiz 3.

October 25 (Friday) : Exam 2.

November 6 (Wednesday) : Quiz 4.

November 20 (Monday) : Exam 3.

November 20 (Wednesday) : Exam 3.

December 2 (Monday) : Quiz 5.

Course Policies:

Closed-book policy: No use of calculators, or books will be allowed during any in-class exams.

Policy related to make-up exams: Written medical documentation is required for make-up exams.

Policy on class attendance: Daily attendance is required as consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Additional Information and Links:

Grades: Grading will be in accord with the UF policy stated at

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Honor Code: “UF students are bound by The Honor 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 any questions or concerns, please consult with the instructor in this class.”

Class Attendance: “Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.”

Accommodations 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 procedure as early as possible in the semester.”

Online Evaluations: “Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.ua.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.ua.ufl.edu/public-results/>.”

Contact information for the Counseling and Wellness Center:

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



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