# Advanced Calculus 1, Fall 2016

# Advanced Calculus for Engineers and Physical Scientists 1,

## Time, Location, and Section Number

MWF PERIOD 4. LITTLE 127. Sections 6153 of MAA 5104 and Section 3043 of MAA 4102

## Office Hours (in Little 478).

will be added here

### **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.

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

#### 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.

#### Text

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

### **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 exams. Here are the assignments for Chapter 1.

- Section 1.1, page 7, # 1, 2, 4, 5 (all parts of each).
- Section 1.2, page 18 20, #3, 11, 13, 18, 19, 20, 21, 23, 24 (all parts of each).
- Section 1.3, page 29 31, # 2 (parts b,c,d,s), 4 (parts a,d,f), 6 (parts a,c), 7 (parts a,b,g).
- Section 1.4, page 35, #1 (parts a,b,c).
- Section 1.5, page 38 39, # 1, 2, 3, 4, 8, 15 (all parts of each).
- Section 1.7, page 47 48, # 5, 11.
- Section 1.8, page 52 54, # 5, 15, 18, 19, 20, 22 (all parts of each).
- Section 1.9 page 55 -56, #1, 2, 3, 22, 23, 24, 25, 26, 27, 30, 45, 46.

# Sample Exams

will be added late

## Grades

Grades will be based on three exams given in class during the semester, and a cumulative final exam. Each of the three exams during the semester will be worth 48 points. The final exam will be given during the regular final exam period for this

# Exam Dates:

will be added later

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

## **Course Policies**

- <u>Closed-book policy:</u> 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 makeup exams.
- <u>Policy on class attendance</u>: 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.
- <u>University's honesty policy</u>: 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 (http://www.dso.ufl.edu/sccr/process/student-conduct-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.
- For students with disabilities; Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.
- Students' evaluations of the course; Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online 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 and Links:

 $\textbf{Gradies:} \ \ \text{Grading will be in accord with the UF policy stated at https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.$ 

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 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/"

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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