

Syllabus
Spring Semester, 2006
MATH 3243, Advanced Calculus
MWF, 9:00–9:50 AM
Pafford Building, Room 106

Text: *A Friendly Introduction to Analysis*, Second Edition, by Witold A. J. Kosmala, Prentice-Hall, Inc., 2004.

Instructor: Dr. Mark Faucette

Office: Boyd Building 323

Phone: My office phone number is 678-839-4133. Call and leave a message on my answering machine. I screen my phone calls, so make sure you leave a message.

E-Mail: My e-mail address is mfaucett@westga.edu.

The Web: My web site is at URL <http://www.westga.edu/~mfaucett/>. The full course syllabus is located on my web site and can be downloaded as a pdf file. It is the student's responsibility to download and/or to print the syllabus and to follow it.

Office Hours: My office hours are

- MWF: 10:00–11:30 AM
- TR: 8:00–9:30 AM, 10:45 AM–12:00 PM

I do not hold office hours during final exam week.

Grading Policy

Homework (700 points) Homework will be collected weekly and graded. Homework will count seven hundred points.

Final Examination (200 points) There will be one comprehensive final examination counting two hundred points.

At the end of the semester, the following grading scale will be used:

- 900 points is the total number of points possible.
- A total of 800–900 points earns an A.
- A total of 700–799 points earns a B.
- A total of 600–699 points earns a C.
- A total of 500–599 points earns a D.
- A total below 500 points earns an F.

Attendance and Classroom Decorum: You are expected to attend class every class period. Class time is at a premium, so it is imperative that it be used wisely. You are not allowed to come to class late or to leave early. You may not converse with other students during class time without my permission. If you disrupt the educational atmosphere of the class, I will ask you to leave. If I have to ask you to leave twice, I will withdraw you from the course. If you miss class for any reason, it is your responsibility to get the notes from a classmate, read the text, and do the homework.

Pagers and Cell Phones: Students are not allowed to carry pagers or cell phones in the classroom unless they are set to an inaudible setting.

Office Hour Regulations: In order for me to utilize my time more wisely, I require students to make appointments to see me during office hours. Appointment sheets are posted by my office door and you must sign up for an appointment at least one day in advance. During your appointment you will have my complete and undivided attention.

Course Content: The course will cover the sections of the book listed on the attached lecture schedule.

Reading Assignments: You are responsible for reading and understanding the text before it is covered in class, through lecture. The lectures during class time will supplement, not replace, the reading of the text. Since class time is limited, only a limited number of examples can be given in class. You can find a large number of examples worked completely in the text. If you are diligent, you will find these examples a great help in completing the homework assignments and earning a satisfactory grade at the end of the semester.

Lecture: The primary method of classroom instruction will be by lecture during class time. The class time will be divided between lectures on new material, working problems at the board, and assessment. It is extremely important that you attend class regularly. You are responsible for all the material presented in the lectures, regardless of attendance.

Homework: Homework assignments will be made frequently, and will coincide with the class lecture. The homework problems may be either examples or applications of the theory presented in class, or expansion of that theory. You may complete the homework either individually or in small groups. Working in small groups is encouraged provided that each member of the group actively contributes to a discussion of the material and to solutions of the problems. You are responsible for completing every homework assignment, regardless of class attendance. Because the completion of the homework is a learning experience in and of itself, I will be unavailable to help you with specific homework. I am, however, available to discuss examples not covered in class, the general theory, and logistical questions about the course.

Extra Credit: There is no extra credit for any reason. All points must be earned on the homework and the final examination.

Make-Up Work: There are no make-up work for any reason. All graded assignments are due at the time given on the assignment sheet, regardless of attendance. If you anticipate being absent from class on the date a graded assignment is due, it is the student's responsibility to see that the assignment is turned in on time.

Midterm: THE LAST DAY TO WITHDRAW WITH A W IS THURSDAY, MARCH 2.

Final Examination: There will be a comprehensive final examination administered on Wednesday, May 3, from 8:00 to 10:00 AM in Room 106 in the Pafford Building. You will need a large ($8\frac{1}{2}$ by 11 inches) examination book for the final examination.

MATH 3253 Lecture Schedule

Monday, January 9	Section 1.5
Wednesday, January 11	Section 1.6
Friday, January 13	Section 1.7
Monday, January 16	MLK Holiday
Wednesday, January 18	Section 1.8
Friday, January 20	Section 2.1
Monday, January 23	Section 2.2
Wednesday, January 25	Section 2.3
Friday, January 27	Section 2.4
Monday, January 30	Section 2.5
Wednesday, February 1	Section 2.6
Friday, February 3	Questions & Answers
Monday, February 6	Section 3.1
Wednesday, February 8	Section 3.2
Friday, February 10	Section 3.3
Monday, February 13	Section 4.1
Wednesday, February 15	Section 4.3
Friday, February 17	Section 4.4
Monday, February 20	Questions & Answers
Wednesday, February 22	Section 5.1
Friday, February 24	Section 5.2
Monday, February 27	Section 5.3
Wednesday, March 1	Section 5.4
Friday, March 3	Questions & Answers
Monday, March 6	Section 6.1
Wednesday, March 8	Section 6.2
Friday, March 10	Section 6.3
Monday, March 13	Section 6.4
Wednesday, March 15	Section 6.5
Friday, March 17	Questions & Answers
Monday, March 20	Spring Break
Wednesday, March 22	Spring Break
Friday, March 24	Spring Break
Monday, March 27	Section 7.1

Wednesday, March 29	Sections 7.1 & 7.2
Friday, March 31	Section 7.2
Monday, April 3	Section 7.3
Wednesday, April 5	Sections 7.3 & 7.4
Friday, April 7	Section 7.4
Monday, April 10	Questions & Answers
Wednesday, April 12	Section 8.1
Friday, April 14	Section 8.2
Monday, April 17	Section 8.3
Wednesday, April 19	Sections 8.3 & 8.4
Friday, April 21	Section 8.4
Monday, April 24	Section 8.5
Wednesday, April 26	Sections 8.5 & 8.6
Friday, April 28	Section 8.6
Monday, May 1	Questions & Answers

MATH 3253 Assignment Sheet

HOMEWORK #1: DUE **Wednesday, January 18**

Problems to work but not hand in:

- Section 1.5: #1, 2, 3, 6
- Section 1.6: #3, 7, 8
- Section 1.7: #2, 3, 5, 7, 8, 9, 10, 12

Problems to turn in:

- Section 1.5: #4, 9, 10, 11
- Section 1.6: #1, 2, 4, 5, 6, 9
- Section 1.7: #1, 4, 6, 14

HOMEWORK #2: DUE MONDAY, JANUARY 23

Problems to work but not hand in:

- Section 1.8: #1, 2, 3, 4, 10
- Section 2.1: #1, 2, 3, 10, 11, 12, 18, 19

Problems to turn in:

- Section 1.8: #6, 7, 21
- Section 2.1: #4, 5, 6, 7, 8, 9, 13

HOMEWORK #3: DUE MONDAY, JANUARY 30

Problems to work but not hand in:

- Section 2.2: #11, 13, 14, 15, 16, 18, 19
- Section 2.3: #3 (b)–(d), 4, 5, 11, 17
- Section 2.4: #1, 2, 3

Problems to turn in:

- Section 2.2: #5, 9, 12, 17
- Section 2.3: #1, 3(a), 6, 7, 12, 13
- Section 2.4: #4(d), 5

HOMEWORK #4: DUE MONDAY, FEBRUARY 6

Problems to work but not hand in:

- Section 2.4: #6, 7
- Section 2.5: #2, 3, 7, 8, 15
- Section 2.6: #1, 2, 3, 8

Problems to turn in:

- Section 2.4: #9, 12
- Section 2.5: #1, 4, 6, 9, 11, 16
- Section 2.6: #4, 7

HOMEWORK #5: DUE MONDAY, FEBRUARY 13

Problems to work but not hand in:

- Section 3.1: #1, 5, 7, 8
- Section 3.2: #1 some, 3, 6, 7, 9
- Section 3.3: #1, 4, 5

Problems to turn in:

- Section 3.1: #3, 6, 9
- Section 3.2: #1(c), 2, 4, 5, 10, 13
- Section 3.3: #2, 8

HOMEWORK #6: DUE MONDAY, FEBRUARY 20

Problems to work but not hand in:

- Section 4.1: #1, 2, 3, 4, 6(a)–(n), 10, 13
- Section 4.3: #1, 3, 9, 10, 12, 15, 17

Problems to turn in:

- Section 4.1: #5(a)(c), 8, 9
- Section 4.3: #2, 5, 6, 7, 8, 11, 18

HOMEWORK #7: DUE MONDAY, FEBRUARY 27

Problems to work but not hand in:

- Section 4.4: #2, 5
- Section 5.1: #1, 2, 3 some, 5(a), 8
- Section 5.2: #1, 5, 6, 7, 8, 12, 14

Problems to turn in:

- Section 4.4: #2 any three parts, #5 any two parts, #8, 9
- Section 5.1: #3(f) (j), 5(b), 9, 11, 14, 15, 16

HOMEWORK #8: DUE MONDAY, MARCH 6

Problems to work but not hand in:

- Section 5.3: #1, 2, 5, 17, 20, 21, 22, 25, 26
- Section 5.4: #1, 2, 3, 4, 5, 8, 16, 17, 18, 23, 26

Problems to turn in:

- Section 5.2: #2, 3, 4, 10, 11
- Section 5.3: #3, 9, 10, 14
- Section 5.4: #6, 9, 14

HOMEWORK #9: DUE MONDAY, MARCH 13

Problems to work but not hand in:

- Section 6.1: #1, 3, 4, 7
- Section 6.2: #1, 2, 3, 11, 13
- Section 6.3: #1, 3, 6, 7

Problems to turn in:

- Section 6.1: #2, 6, 8
- Section 6.2: #4, 6, 7, 12
- Section 6.3: #2, 4, 5, 9, 10, 13, 14

HOMEWORK #10: DUE **Friday, March 17**

Problems to work but not hand in:

- Section 6.4: #1, 2, 6, 7, 8, 11
- Section 6.5: #9, 10, 17

Problems to turn in:

- Section 6.4: #3, 5, 14, 15, 16
- Section 6.5: #4, 11

HOMEWORK #11: DUE MONDAY, APRIL 3

Problems to work but not hand in:

- Section 7.1: #1, 2, 3, 5, 6, 7, 11, 12, 13
- Section 7.2: #1, 4, 9, 10 (for the number theory crowd)

Problems to turn in:

- Section 7.1: #4, 8, 9(a), 10, 16, 18
- Section 7.2: #2, 3, 5, 13

HOMEWORK #12: DUE MONDAY, APRIL 10

Problems to work but not hand in:

- Section 7.3: #1, 3, 4, 5, 7, 9
- Section 7.4: #2, 5, 6, 12, 13, 15, 17

Problems to turn in:

- Section 7.3: #11, 12, 13, 14
- Section 7.4: #1, 4, 7, 16

HOMEWORK #13: DUE MONDAY, APRIL 17

Problems to work but not hand in:

- Section 8.1: #1, 2
- Section 8.2: #1

Problems to turn in:

- Section 8.1: #3, 6
- Section 8.2: #2, 3, 4, 6

HOMEWORK #14: DUE MONDAY, APRIL 24

Problems to work but not hand in:

- Section 8.3: #3, 5
- Section 8.4: #1, 2

Problems to turn in:

- Section 8.3: #1, 2, 4, 6, 11
- Section 8.4: #3, 4, 7, 10, 19, 20

HOMEWORK #15: DUE MONDAY, MAY 1

Problems to work but not hand in:

- Section 8.5: #3, 7, 11, 12, 13, 14
- Section 8.6: #1, 2, 3, 4, 6, 7

Problems to turn in:

- Section 8.5: #4, 5, 6, 8, 17
- Section 8.6: #10, 11

Academic Honesty Prohibited Conduct¹

General standard of conduct. No student shall knowingly perform, attempt to perform, or assist another in performing any act of dishonesty on academic work to be submitted for academic credit or advancement. The term “knowingly,” as used in the preceding sentence, means that the student knows that the academic work involved will be submitted for academic advancement. “Knowingly” does not mean that the student must have known that the particular act was a violation of the University’s academic honesty policy. A student does not have to intend to violate the honesty policy to be found in violation. For example, plagiarism, intended or unintended, is a violation of this policy.

Examples of Academic Dishonesty. The following acts by a student are examples of academically dishonest behavior:

- (a) Plagiarism - Submission for academic advancement the words, ideas, opinions or theories of another that are not common knowledge, without appropriate attribution to that other person. Plagiarism includes, but is not limited to, the following acts when performed without appropriate attribution:
 - (i) Directly quoting all or part of another person’s written or spoken words without quotation marks, as appropriate to the discipline;
 - (ii) Paraphrasing all or part of another person’s written or spoken words without notes or documentation within the body of the work;
 - (iii) Presenting an idea, theory or formula originated by another person as the original work of the person submitting that work;
 - (iv) Repeating information, such as statistics or demographics, which is not common knowledge and which was originally compiled by another person;
 - (v) Purchasing (or receiving in any other manner) a term paper or other assignment that is the work of another person and submitting that term paper or other assignment as the student’s own work.

- (b) Unauthorized assistance - Giving or receiving assistance in connection with any examination or other academic work that has not been authorized by a faculty member. During examinations, quizzes, lab work, and similar activity, students are to assume that any assistance (such as books, notes, calculators, and conversations with others) is unauthorized unless it has been specifically authorized by a faculty member. Examples of prohibited behavior include, but are not limited to, the following when not authorized:
 - (i) Copying, or allowing another to copy, answers to an examination;
 - (ii) Transmitting or receiving, during an examination, information that is within the scope of the material to be covered by that examination (including transmission orally, in writing, by sign, electronic signal, or other manner);

¹The content of this page is taken from the document *Academic Honesty Policy (A Culture of Honesty)*, Section 5, The University of Georgia

- (iii) Giving or receiving answers to an examination scheduled for a later time;
 - (iv) Completing for another, or allowing another to complete for you, all or part of an assignment (such as a paper, exercise, homework assignment, presentation, report, computer application, laboratory experiment, or computation);
 - (v) Submitting a group assignment, or allowing that assignment to be submitted, representing that the project is the work of all of the members of the group when less than all of the group members assisted substantially in its preparation;
 - (vi) Unauthorized use of a programmable calculator or other electronic device.
- (c) Lying/Tampering/Bribery - Bribery or giving any false information in connection with the performance of any academic work or in connection with any proceeding under this policy. This includes, but is not limited to:
- (i) Giving false reasons (in advance or after the fact) for failure to complete academic work. This includes, for example, giving false excuses to the Faculty Member or to any University official for failure to attend an exam or to complete academic work;
 - (ii) Falsifying the results of any laboratory or experimental work or fabricating any data or information;
 - (iii) Altering any academic work after it has been submitted, unless such alterations are part of an assignment (such as a request of an instructor to revise the academic work);
 - (iv) Altering grade, lab, or attendance records. This includes, for example, the forgery of University forms for registration in or withdrawal from a course;
 - (v) Damaging computer equipment (including disks) or laboratory equipment in order to alter or prevent the evaluation of academic work, unauthorized use of another's computer password, disrupting the content or accessibility of an Internet site, or impersonating another to obtain computer resources;
 - (vi) Giving false information or testimony in connection with any investigation or hearing under this policy;
 - (vii) Submitting for academic advancement an item of academic work that has previously been submitted (even when submitted previously by that student) for academic advancement, unless done pursuant to authorization from the Faculty Member supervising the work or containing fair attribution to the original work.
- (d) Theft - Stealing, taking or procuring in any other unauthorized manner (such as by physical removal from a professor's office or unauthorized inspection of computerized material) information related to any academic work (such as exams, grade records, forms used in grading, books, papers, computer equipment and data, and laboratory materials and data).
- (e) Other - Failure by a student to comply with a duty imposed under this policy. However, no penalty is imposed under this policy for failure to report an act of academic dishonesty by another or failure to testify in an academic honesty proceeding concerning another. Any behavior that constitutes academic dishonesty is prohibited even if it is not specifically listed in the above list of examples.

Information Sheet

(Please Print)

Name: _____ Student ID#: _____

Local mailing address: _____ E-mail: _____

Phone: _____ Year at UWG: _____

Math Background (List all mathematics courses you have taken *after* the calculus sequence.)

What are you taking this semester?

When is your birthday?

Where are you from?