University of South Carolina Fall 2008

## MATH 142 $(\S502)$ – Calculus II

Instructor	Professor Doug	g Meade
	Office Hours:	MTW 10:00–11:00, and by <i>prior</i> appointment
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	Office Hours:	M 3:30-4:30 and TTh 4:30-5:30	
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- WWW URL http://www.math.sc.edu/~meade/math142-F08/
- Meeting Times M 11:15AM-12:05PM, LC 401 Maple Lab TTh 11:00AM-12:30PM, LC 121 W 11:15AM-12:05PM, LC 115

## Text Anton, Bivens, and Davis, *Calculus*, Eighth Edition, Wiley, 2005.

**Prerequisite** Completion of Math 141 with a grade of C or better *or* qualification through placement.

Course Content This is a continuation of Math 141 — Calculus I. A working understanding of all the major topics from Math 141: limits, differentiation, integration, extrema, Fundamental Theorem of Calculus, etc. is essential for success in this course. The major themes of Calculus II are

- applications of integration (Chapter 7),
- techniques of integration (Chapter 8),
- sequences and series (Chapter 10), and
- polar coordinates (Chapter 11).

This course emphasizes both learning and mastering specific methods and techniques and understanding the logical development of these ideas from previous results.

Learning Outcomes Successful students in Calculus II will

- learn key theories, concepts, and methods of inquiry in Calculus II, including: techniques and applications of integration, sequences and infinite series, approximations, and polar coordinates.
- learn how to solve problems in Calculus II by completing weekly homework assignments in problem solving. Students will be able to solve problems using appropriate technology, translating problems from one form to another, and using various problem-solving strategies.
- learn to think critically about Calculus II by applying theories, concepts, and methods of inquiry in Calculus II to novel problems, to other disciplines, and to situations that require understanding rather than rote memory.
- have mastered and, where appropriate, memorized material from PreCalculus and Calculus I.

Study Hints Grading	Reading the material <b>in advance</b> of the lecture is strongly encouraged. Benefits of this preparation include obtaining a familiarity with the terminology and concepts that will be encountered (so you can distinguish major points from side issues), being able to formulate questions about the parts of the presentation that you do not understand, and having a chance to review the skills and techniques that will be needed to apply the new concepts. For additional assistance, do not forget about the Math Tutoring Center, in LC 103 and the ACE offices in the residence halls. For updated hours and locations, visit the Math Tutoring Center homepage at http://www.math.sc. edu/mathlab.html. Your grade in this course will be based on your performance on homework, four			
C C	(4) mid-term exams, and a final exam. The weights assigned to each of these components will be:			
	Mid-term exams (3) $45\%$ Final exam $20\%$ Homework $10\%$ Quizzes $10\%$ Computer Lab $15\%$			
	Course grades will be determined according to the following scale:			
	A 90–100			
	$\mathrm{B}$ 80 $-$ 89			
	$egin{array}{ccc} { m C} & 70-79 \ { m D} & 60-69 \end{array}$			
	$egin{array}{cccc} { m D} & 60-69 \ { m F} & 0-59 \end{array}$			
	The deadline to drop this course with a grade of W is Wednesday, October 2, 2008.			
Exams	The lowest of your four (4) mid-semester exam scores will <i>not</i> be used in deter- mining your overall grade. <i>Tentative</i> dates for these exams are:			
	Thursday, September 11Wednesday, October 8Thursday, November 6Tuesday, November 25			
	Make-up exams will be given only for documented reasons of illness, family emergency or participation in a University sponsored event. Excuses such as oversleeping, forgetting the time or location of the exam, and lack of studying are explicitly noted as unacceptable grounds for the administration of a make-up exam. A comprehensive final will be given at <u>9:00A.M.</u> on Wednesday, December 10, 2008.			
Homework	Problems will be assigned on a regular basis. You are expected to work all of these problems. We will go over some, but not all, of these problems in class. Some homework problems will be collected and others will be graded using WileyPlus.			
Quizzes	There will be a quiz each Wednesday of the semester, except for weeks when there is an exam. Each quiz will consist of one or two problems similar in nature to the homework problems. Your quiz grade will be computed by your ten (10) highest quiz scores. No make-up quizzes will be permitted.			
Calculators	Calculators cannot be used on any in-class quiz or exam.			
Attendance	Attendance at every class meeting is important – and expected. Students missing more than 10% of the class meetings (4 days) can have their grade lowered.			
Academic Honesty Cheating and plagiarism will not be tolerated. You may discuss homework problems with others, but do not copy work from another student or from a book.				
	Violations of this policy will be dealt with according to University guidelines.			