MATH 142 University of South Carolina
D. Meade Fall 1995

MATH 142 (Sections 1&2) – Calculus II

Instructor

Professor Doug Meade

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TA

Mark Whisler

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WWW URL `http://www.math.scarolina.edu/~meade/math142/`

Meeting Times

Lectures (Sections 1&2): MWF 8:00AM– 8:50AM, LC 412
Recitations (Section 1): TTh 8:00AM– 8:50AM, LC 210A
Recitations (Section 2): TTh 9:30AM–10:20AM, LC 115

Text Varberg and Purcell, *Calculus with Analytic Geometry.*

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. Most of the material from Chapters 7–12 of the text will be covered. 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.

Some of the specific topics that will be covered include:

Chapter 7 Transcendental Functions

- logarithms
- inverse functions

Chapter 8 Techniques of Integration

- substitution
- integration by parts
- partial fractions

Chapter 9 Indeterminate Forms and Improper Integrals

- l'Hôpital's Rule
- integration when the Fundamental Theorem does not apply

Chapter 10 Numerical Methods and Approximations

- approximation of functions
- numerical integration

Chapter 11 Sequences and Series

- convergence tests
- power series

Chapter 12 Polar Coordinates

- graphing
- area

Study Hints Reading the material **in advance** 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 Lab located in LeConte College 101. Assistance for all 100- and 200-level courses is available on from 1:00–8:00 MTWTh and from 1:00–3:00 on F.

Finally, as previously mentioned, you are assumed to have a mastery of the topics in Math 141. If you are not comfortable with your basic Calculus skills, please discuss your concerns with me before they become a problem.

Grading Your grade in this course will be based on your performance on quizzes, four (4) mid-term exams, and a final exam. The weights assigned to each of these components will be:

Quizzes	10%
Mid-term exams (3)	60%
Final exam	30%

Course grades will be determined according to the following scale:

A	90 –100
B	80 – 89
C	70 – 79
D	60 – 69
F	0 – 59

Note that the deadline to drop this course without a grade of WF is Thursday, October 5, 1995.

Exams The four (4) mid-term exams will be given in lecture. Your lowest exam score will not be used in determining your overall grade. *Tentative* dates for these exams are:

Wednesday, September 13	Chapter 7
Wednesday, October 4	Chapter 8 (and part of 9)
Wednesday, November 1	Chapters 9, 10 (and part of 11)
Friday, December 1	Chapters 11 and 12

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 9:00A.M. on Friday, December 15, 1995.
(Do not trust exam schedules published by unofficial sources, e.g. the Mortar Board.)

Homework Problems will be assigned on a regular basis. You are expected to work all of these problems. We will go over some of these problems in class, in particular during recitations. Your solutions will not be collected.

Quizzes There will be a quiz in each recitation (except for days immediately preceding 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 twenty (20) highest quiz scores. *No make-up quizzes will be permitted.*

Academic Honesty Cheating and plagiarism will not be tolerated in this course. You may discuss homework problems with others, but do not copy solutions from another student or from a book. Violations of this policy will be dealt with in a matter consistent with University guidelines.