MA 126-107 **Calculus II** Fall 2010

Instructor: Yorck Sommerhäuser

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Office hours: Monday, Tuesday, Wednesday, Thursday 10:00 am–11:00 am

Prerequisites: C or better in Calculus I (MA 125) or an equivalent course

Textbook: J. Rogawski, Calculus: Early transcendentals, 1st ed., W. H. Freeman, New York, 2008

Course description: The course is a continuation of Calculus I. We define definite integrals and explain the fundamental theorem of calculus. We then cover the basic integration techniques like the substitution rule and integration by parts. These techniques are then applied to area and volume computations. After treating various aspects of series, we finally consider arc length computations, both in Cartesian coodinates and in polar coordinates.

Objectives: The goal of the course is to introduce the student to integral calculus, both theoretically and practically. Practically, the student will acquire the skill to compute the fundamental integrals. Theoretically, the student will learn the basic notions and theorems, like the concept of Riemann sums, the fundamental theorem of calculus, or the substitution rule. In this way, the student's ability to think logically is enhanced, and he develops an understanding how a theory is systematically developed.

Coverage: We cover the majority of the material from Chapter 5-11 in the textbook, with the exception of Chapter 9, which is not treated.

Attendance: Attendance is required and contributes to the final grade. Four classes may be missed without affecting this grade. Absence in more than half of the classes results in failing the whole course.

Exams: There will be two midterm exams and a comprehensive final exam. No make-up exams will be offered. Calculators and other electronic devices must not be used during the exam. The midterm exams take place on Thursday, October 7 and on Thursday, November 4. The final exam takes place on Saturday, December 11, from 1:00 pm until 3:00 pm.

Homework: The daily homework assignment will consist of a reading assignment and a problem assignment. One or two problems of the daily problem

assignment have to be completed online via the eCompanion of the course at
http://usaonline.southalabama.edu. The time frame for this completion begins
after the lecture in which the problem was assigned, and ends one hour before
the next lecture.

Quizzes: Every week, there will be a short quiz. No make-up quizzes will be
offered. However, the two lowest quiz grades will be dropped.

Grading weights:

Attendance:	5%
Online homework:	15%
Quizzes:	15 %
Midterm exams:	20% each
Final exam:	25%

Grading scale:

A:	90%
B:	80%
C:	70 %
D:	60%

Policies: Eating, drinking, and smoking is not permitted in the classroom.
The use of electronic devices such as laptops, i-pods, cellphones, or calculators
is not allowed unless explicitly stated by the professor. Furthermore, the policies
described in the student handbook 'The Lowdown' apply.

Tutoring: The tutoring laboratory in ILB 456 provides additional help for this
course.

Disabled students: If you have a specific disability that qualifies you for
academic accommodations, please notify me and provide certification from the
Office for Special Student Services, which is located in Room 270 of the Student
Center (Tel. 460-7212).

JagSuccess: JagSuccess is a program intended to help students be successful
in 100-200 level courses. If you are not doing well, you will receive an email
instructing you to see me along with instructions to access an online tutorial
intended to help with common problems affecting academic performance. Watch
for this email during week 8 of this semester.