#### MATH 151: Calculus II Fall 2007

Section	Lecture	Discussion
5	TR 11-12:15 P 144	T 10-10:50 GMCS 307
6	TR 11-12:15 P 144	R 10-10:50 GMCS 307
7	TR 12:30-1:45 P 144	M 2-2:50 GMCS 328
8	TR 12:30-1:45 P 144	W $2-2:50 \text{ GMCS } 328$
-	Vadim Ponomarenko	Donatas Bukauskas
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	Office Hours: TR 10-10:50, 2-3:30,	Office Hours: MW 1-2
	and by appointment	
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### Overview:

Calculus II is the middle course in a three-course calculus sequence that is considered the standard introduction to mathematics at institutions, like SDSU, based on semesters. Unlike Calculus I (differential and integral calculus) and Calculus III (multivariate calculus), this course has no clear topic. Its purpose is to complete some unfinished ideas from Calculus I, as well as to present some miscellaneous topics that are somewhat calculus-based, somewhat important, and don't fit into the other calculus courses.

# Learning Objectives:

Students will complete their understanding of integral calculus, as begun in Calculus 1. Specifically, they will master a variety of integration techniques, that will allow them to evaluate a wide variety of integrals. Further, they will apply the integral calculus to a variety of practical problems including solving some simple differential equations.

Students will learn about infinite sequences and series, including convergence tests and applications. This topic will be of great value in a subsequent differential equations course. Students will learn about polar coordinates, including calculus and geometry. This topic will be of great value in Calculus III.

Most importantly, students will learn to solve many, many exercises through using these ideas. Almost all quiz and test questions will be similar in form to exercises found in the text.

### Textbook:

Single Variable Essential Calculus, by James Stewart, ISBN 0-495-10955-X

Students are expected to read the text; it is quite brief and easy to understand. Students are also expected to work exercises until they master the material. Answers to odd-numbered exercises are found in the back. Students are urged to NOT work backward from these answers, as this form of study is of little value – the best course of action once multiple discrepancies are found is to discuss the issue with a classmate, TA, or professor.

# Clicker:

Students are required to purchase and use a clicker for this course. Before use, it must be activated online. Activation requires three codes: (1) the class key is N30436H234, (2) the clicker serial number is displayed when the clicker turns on, and (3) the enrollment code is packaged with the clicker on a yellow slip of paper.

Students that forget their clicker or have technical difficulties may instead submit their quiz answers on a piece of paper. To be counted, this must be legible, contain the date and time, student's name, Red ID, and quiz answer. This will be permitted only once per semester per student.

Activation Instructions: Go to www.einstruction.com. Click on Students. Select "San Diego State University" from the pulldown menu, and click "Choose site". Enter the necessary information, and click "Create Your Account". Pick a CPSOnline username and password, fill out the other data, and click "Submit". Then, enroll in MATH 151, using the class key N30436H234 [Note: the third character is a zero, not a capital O]. Be sure to "Log Out" when you are done, to ensure that your information is saved.

### Course Mechanics:

Homework will not be collected. Students are expected to do enough exercises until they master the material. Historically there is a *very strong* correlation between number of exercises completed and course grade. A typical student, spending 5-6 hours per week doing exercises, will earn a C. The material comes easier to some lucky people; they can earn the same grade with less work, or a higher grade with the same amount of work. On the other hand, others are not so lucky; they may have to work harder than the typical student.

Every lecture period will contain one new section from the text, and a clicker-based quiz (based on the previous lectures' material). The quiz will typically have several questions, spaced throughout the class period. Please note that after Section 7.6 there is a supplemental section, found at http://tinyurl.com/3ab3vc

The discussion sections will have a total of six 20-minute pop quizzes, based on the homework. The lowest score will be dropped.

### Attendance:

Students are permitted to attend either the 11:00 or the 12:30 lecture on any given day. In fact, students may attend both; in this case the higher-scoring clicker quiz will be counted. Students are also permitted to attend different or multiple discussion sections; for more details ask the T.A. Makeup clicker quizzes and pop quizzes are not given; the lowest pop quiz score, and the lowest six clicker quiz scores, are dropped to account for unexpected eventualities.

Students in class are expected to treat the instructor(s) and each other with respect. Examples of disruptive behavior are: loudly arriving late or leaving early, eating noisily or messily, sleeping, talking, permitting ringing cell phones, reading newspapers, and dominating classtime with excessive questions. Students not displaying proper respect will be asked to leave.

### Collaboration:

Students are encouraged to study together, and to work together to solve exercises. Quizzes and exams must be taken without assistance, however. Violations of this policy (including using someone else's clicker) are not permitted and will be fully prosecuted under SDSU's academic integrity policy. For more details, read http://csrr.sdsu.edu/academics1.html

## Grading:

25 quizzes (the top 20 clicker quizzes and the top 5 pop quizzes) will be 2% of the course grade each. The midterm will be 20% of the course grade. The final exam will be 30% of the course grade. The grading policy is as follows:

A 92-100, B 82-87, C 72-77, D 62-67,  $\pm$  as obvious

Approximate Lecture Schedule:							
Aug. 28	Introduction	Oct. 2	7.2	Nov. 6	8.4		
Aug. 30	5.7	Oct. 4	7.3	Nov. 8	8.5		
Sep. 4	5.8	Oct. 9	7.4	Nov. 13	8.6		
Sep. 6	6.1	Oct. 11	7.5	Nov. 15	8.7		
Sep. 11	6.2	Oct. 16	7.6	Nov. 20	8.8		
Sep. 13	6.3	Oct. 18	Supplement	Nov. 22	Thanksgiving		
Sep. 18	6.4	Oct. 23	Midterm	Nov. 27	9.3		
Sep. 20	6.5	Oct. 25	8.1	Nov. 29	9.4		
Sep. 25	6.6	Oct. 30	8.2	Dec. 4	9.5		
Sep. 27	7.1	Nov. 1	8.3	Dec. 6	Review		

GROUP FINAL: Saturday, Dec. 8, 8-10 a.m., room TBA