Calculus II
Math 152, Section 45
Fall 2010

Instructor: Yusra Naqvi
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Office: Hill Center 606, Busch
Office Hours: W 3:30-4:30pm, and by appointment

Peer Mentor: Joey Reichert

Lecture: MW 5:00-6:20pm
Workshop: Th 5:00-6:20pm
Location: SEC 218, Busch

Prerequisites: Calculus I

Textbook: *Calculus: Early Transcendentals*(ISBN 1-4292-1113-X) by Jon Rogawski, published by W. H. Freeman and Company, 2008.

Calculator: Students should have a graphing calculator available in class and while doing homework and workshops. Students have traditionally used the TI-83 or 83+, but any calculator with equivalent capacities can be used, such as the TI-85 or 86. Note, however, that calculators may not be used during quizzes and examinations.

Course Webpage: http://www.math.rutgers.edu/~ynaqvi/math152fa10/math152fa10.html

Course topics: This course continues the study of the integral calculus, focusing on techniques and applications of integration, elementary differential equations, sequences, infinite series, Taylor series, parametric equations and polar coordinates.

Absences: You are expected to attend every lecture and workshop. An absence due to emergency may be excused, provided that you can supply acceptable written evidence if required, and that you notify the lecturer *as soon as possible*.

Homework: A list of homework problems for each chapter can be found on the course webpage. The first 20 minutes of each workshop period will be spent discussing problems for the chapters covered on Wednesday of the previous week and Monday of the same week. These problems will be handed in and graded by the peer mentor. It is a good idea solve the homework for each lecture before the next one in order to keep up with the class.

Quizzes: A fifteen minute quiz will be given during most workshops meeting, and no make-ups will be given for these. The lowest quiz grade will be dropped in order to accomodate unavoidable absences.

Workshops: Workshops will be held on Thursdays, and write-ups for the workshop will be due at the beginning of class on the following Thursday. No late workshops will be accepted. An example workshop is given at the begining of the Rutgers customized edition of the textbook, and is also available at http://www.math.rutgers.edu/courses/152/152Syllabus/lm.pdf.

Exams: There will be two eighty-minute midterm exams and a three-hour cumulative final exam. Make-up exams will only be allowed if you can supply *acceptable* written evidence, and that you notify the lecturer *before the end of the missed exam.*

Midterm Exam 1:	Wednesday, October 6
Midterm Exam 2:	Wednesday, November 17
Final Exam:	Thursday, December 16

Grading: The term grade will be based on the results of the examinations, the scores on written homework and workshops, and on class participation, which will be measured in various ways, including quizzes. It will be determined using the following point distribution:

Homework	50
Quizzes	50
Workshops	100
1st exam	100
2nd exam	100
Final exam	200
Total	600

Course Outline: The following plan for the course is tentative and may be subject to changes.

Lecture	Date	Sections	Topics
1	W 9/1	6.1 6.2	Area Between Curves, Volume and Average Value
2	W 9/8	6.3 6.4	Volumes of Revolution, Cylindrical Shells Method
3	M 9/13	6.5	Work
4	W 9/15	7.1	Numerical Integration
5	M 9/20	7.2	Integration by Parts
6	W 9/22	7.3	Trigonometric Integrals
7	M 9/27	7.4	Trigonometric Substitution
8	W 9/29	7.6	Partial Fractions
9	M 10/4		Review for First Midterm
10	W 10/6		**FIRST MIDTERM EXAM**
11	M 10/11	7.7	Improper Integrals
12	W 10/13	8.1	Arc Length and Surface Area
13	M 10/18	11.1 11.2	Parametric Equations, Arc Length and Speed
14	W 10/20	11.3 11.4	Polar Coordinates, Area and Length in Polar Coordinates
15	M 10/25	9.1	Differential Equations
16	W 10/27	9.2 9.3	Exponential models, Graphical Methods
17	M 11/1	8.4	Taylor polynomials
18	W 11/3	10.1	Sequences
19	M 11/8	10.2	Infinite Series
20	W 11/10	10.3	Convergence of Series with Positive Terms
23	M 11/15		Review for Second Midterm
24	W 11/17		**SECOND MIDTERM EXAM**
21	M 11/22	10.4	Absolute and Conditional Convergence
22	M 11/29	10.5	Ratio and Root Tests
25	W 12/3	10.6	Power Series
26	M 12/5	10.7	Taylor Series
27	W 12/10	10.7	More Taylor Series
28	M 12/12		Review for Final Exam