SECTION 46 (4 Credits) **SYLLABUS MATH 152** **FALL 2008**

INSTRUCTOR: Gus Rainsford **EMAIL ADDR:** rainsfor@math.rutgers.edu

OFFICE HOURS: Every Monday 3:00-4:00 and Wednesday from 10:30-11:30 (unless announced otherwise) in room 611 Hill Center on Busch Campus. I am also available on Thursday from 3:00-4:00 in the same office by appointment.

PREREQUISITE: Calculus: Rutgers Math 151, or Math 135 plus Supplementary Work or appropriate performance on the placement test in mathematics.

TEXT: Calculus with Early Transcendentals, Custom Edition for Rutgers University.
Author: Jon Rogawski. **Publisher**: Freeman Custom Publishing.

Note 1: You may also use the Non Customized first edition of Calculus with Early Transcendentals by Jon Rogawski published by Freeman.

Note 2: (change of class days) Our class WILL meet TWICE during the week of Nov 24. We will meet for lecture on Monday Nov 24 as ususal, AND we will meet Tuesday, Nov 25 because on on Tuesday Nov 25, Rutgers will follow Thursday's schedule of classes. We will not meet on Wednesday Nov 26, because on Wednesday Nov 26, Rutgers will follow Friday's schedule of classes

CALCULATOR: A Graphing Calculator may be used for workshops and possibly some quizzes. Calculators will **NOT** be permitted on exams.

GRADING: Quizzes: 80 pts Workshops: 80 pts Exam 1: 100 pts
Exam 2: 100 pts Final: (comprehensive) 200 pts Total: 560 pts

EXAMS: Exams are closed book: no notes, or books etc are permitted. A formula sheet will be provided on exams. No other formula sheets or materials may be used on exams. Calculators may NOT be used on exams. **Midterm I** is *tentatively* scheduled for Monday October 6. **Midterm II** is *tentatively* scheduled for Wednesday November 19. **The Final Exam** will be comprehensive and will be held on Monday December 15, 4:00 - 7:00 PM. The room will be announced in class. Please note: Firm dates for Midterm Exams exams will be announced in class.

MISSED EXAMS: Makeup exams are not given. If you are absent on the day of an exam (for some acceptable reason), you must bring in a formal letter from the dean's office in order for your absence to be excused. You must contact either me, or the math office 445 2390 within 3 days of the missed exam. For such an excused absence, the final will count for the missed exam. Missed exams, which are not excused, are recorded as a 0 grade.

CLASS PARTICIPATION: You are responsible for attending all class meetings. Poor attendance will be a factor in deciding borderline grade situations. You are responsible for all material covered in lecture as well as all announcements made in lecture. Homework assignments, and announcements regarding quizzes and exams, etc. will not be sent to students via email or phone. Make arrangements with other students to get lecture notes and any announcements in the event you miss lecture. Not knowing the day of an exam is NOT an acceptable excuse for missing the exam.

WORKSHOPS and QUIZZES: Each week a workshop problem will be assigned in the workshop class. Workshops must be handed to your TA at the beginning of the workshop class one week after they are assigned. They will not be accepted during office hours, or in the lectures or via email. Late workshops will not be accepted. The lowest workshop grade will be dropped. Each week, in addition to a workshop assignment, unless announced otherwise, a short quiz will be given in the workshop class. Quizzes will be based on the homework problems. Makeup quizzes will not be given. As such the two lowest quiz scores out of ten will be dropped. The remaining eight scores will be used toward your grade lowest quiz scores will be dropped.

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HOMEWORK PROBLEMS: Students are encouraged to do all the problems as they are practice problems for exams and quizzes. Homework problems will not be graded. Updates to the homework problems on the syllabus may be announced in lecture and/or in the workshop class.

Homework Problems

6.1 (Area between Two Curves)(review) $9, 12, 15, 17, 19, 29$

6.2 (Volumes, Average Value) $1, 2, 3, 5, 6, 9, 11, 13, 14, 42, 45, 46$

6.3 (Volumes of Solids of Revolution) $16, 17, 19, 23, 29, 30, 32, 35, 36, 37$

6.4 (Method of Shells) $12, 13, 19, 20, 23, 26$

6.5 (Work) $3, 6, 11, 12, 16, 17$

7.1 (Numerical Integration) $7, 8, 13, 14, 36, 37$

7.2 (Integration by Parts) $9, 10, 23, 24, 53, 72$

7.3 (Trigonometric Integrals) $3, 4, 14, 15, 40, 41$

7.4 (Trigonometric Substitutions) $13, 14, 23, 28, 35, 36$

7.6 (Partial Fractions) $9, 10, 17, 18, 33, 36$

7.7 (Improper Integrals) $14, 19, 29, 32, 43, 44$

8.1 (Arc Length & Surface Area) $7, 8, 9, 10, 38, 39$

8.4 (Taylor Polynomials) $7, 8, 17, 18, 29, 30$

9.1 (Solving Differential Equations) $13, 14, 29, 30, 35, 36$

9.2 (Models) $3, 4, 8, 9, 15, 16$

9.3 (Graphical Methods) $2, 9$

10.1 (Infinite Sequences) $21, 22, 30, 39, 43, 46$

10.2 (Infinite Series) $9, 10, 15, 16, 28, 29$

10.3 (Series with Positive terms) $9, 10, 15, 16, 38, 39$

10.4 (Absolute and Conditional Convergence) $5, 6, 21, 22, 23, 26$

10.5 (Ratio Test, Root Test) $6, 11, 12, 13, 18, 23$

10.6 (Power Series) $6, 7, 19, 20, 31, 32$

10.7 (Taylor Series) $3, 4, 11, 12, 19, 20$

10.7 (More Taylor Series) $21, 22, 24, 25, 26, 41$

11.1 (Parametric Equationss) $7, 8, 19, 20, 21, 22$

11.2 (Arc Length and Speed) $3, 4, 13, 14, 20, 21$

11.3 (Polar Coordinates) $3, 4, 7, 8, 14, 15$

11.4 (Area and Arc Length in Polar Coordinates) $7, 8, 11, 12, 13, 14$