

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

OFFICE HOURS: Monday, Tuesday, and Wednesday after class (unless announced otherwise). I can also be available on some Thursdays after class by appointment. The room will be announced in class.

PREREQUISITE: Calculus: Rutgers Math 151, or Math 135 plus Supplementary Work or appropriate performance on the placement test in mathematics. You are expected to know PreCalc and Calc I thoroughly, (without the aid of a formula sheet or a Calculator)!

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.

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

GRADING: Quizzes: 50 pts Workshops: 50 pts Exam 1: 100 pts
Exam 2: 100 pts Final: (comprehensive) 200 pts Total: 500 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 **Wednesday July 8**. **Midterm II** is *tentatively* scheduled for **Wednesday July 29**. **The Final Exam** will be comprehensive and will be held on **Wednesday August 12**, 10:00 AM - 1:00 PM. The room will be announced in class. Please note: Firm dates for Midterm Exams will be announced in class.

MISSED EXAMS: Makeup exams are not given; there are no exceptions. 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: During this course, workshop problems will be assigned in class. Workshops must be handed in during class. They will NOT be accepted via email. Late workshops will not be accepted. The lowest workshop grade will be dropped. Each week, unless announced otherwise, a short quiz will be given in class. Quizzes will be based on the homework problems and/or workshop problems. Makeup quizzes will not be given. As such the two 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 Equations) 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