NOTICE 1:

The math requirement for Calculus II, 152, is NO LONGER met by Math 136. Math 136 is NOT for Math, Physical Science, Engineering, Chemistry, or Computer Science majors. If you intend to take more math courses, such as Calc III or Differential Equations, take Calc 152 instead of 136.

NOTICE 2: There is a Sakai site for this course. It would be helpful to have a Rutgers logon id.

NOTICE 3: There is no class on Monday July 4. Classes resume Tuesday July 5.

PREREQUISITE:

Calculus: Rutgers Math 135, or Math 151, or appropriate performance on the placement test in mathematics. You will need to know PreCalc and Calc I thoroughly, including but not limited to graphing, exponential, log and trig functions, differentiation and integration.

TEXT:

Calculus And Its Applications by Strauss, Bradley, and Smith, Volume 2. **Revised Second Custom Edition for Rutgers University**.

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

OFFICE HOURS:

Monday, Tuesday, and Wednesday from 1:00 - 2:00 PM in 208 Hill Center unless announced otherwise. Thursdays 1:00 - 2:00 in room 208 Hill Center by appointment.

CALCULATOR:

A Graphing Calculator may be used in this course on practice problems and possibly some quizzes. Calculators will NOT be permitted on exams.

GRADING:

Quizzes: 70 pts,   Exam 1: 100 pts,   Exam 2: 100 pts,   Final (comprehensive) 200 pts

EXAMS:

A formula sheet will be provided with exams. It is posted on Sakai under resources. No materials other than the formula sheet provided may be used on exams. Calculators, electronic devices etc. may NOT be used on exams. **Exam I** is tentatively scheduled for Thursday June 16. **Exam II** is tentatively scheduled for Thursday July 7. Note: Firm dates and topics for the Exams I and II will be announced in class. The **Final Exam** is a **three hour exam** and will be comprehensive. It is scheduled on the last day of class, Thursday July 21. The room will be announced in class.

MISSED EXAMS:

If you miss taking an exam (for some sound documented reason), you must bring in a formal letter from the dean's office stating you had a valid reason for being absent on the date the exam was given in order for your absence to be excused. For such an excused absence, the problems on the final exam which cover the material tested on the missed exam will be selected to be the replacement or "makeup" for the missed exam. **No other replacement or makeup exam will be given for any reason. NO EXCEPTIONS!** You must contact either me, or the math office 445 2390 within 3 days of the missed exam. **Missed exams, which are not excused, are recorded as a 0 grade.** If Rutgers cancels classes, (for snow storms etc), on the day of an exam, the exam will be given on the first day we meet when our class resumes.

QUIZZES:

Quizzes will be given as announced in lecture. Makeup quizzes are not given. Missed quizzes are given a zero grade. The two lowest grades will be dropped. The remaining scores be used to compute your quiz score. Homework problems are not graded; they are to be used considered as practice problems for exams.

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 class as well as all announcements made in class. Announcements regarding quizzes and exams, etc. will not be sent to students via email or phone. Make arrangements with other students to get class notes and any announcements in the event you miss class. Not knowing the day of an exam or quiz is NOT an acceptable excuse for missing the exam or quiz. Cell phones, laptops, etc. are to be turned off while in class.

SPECIAL NEEDS:

If you require special accomodations during exams or in class, you must see the Rutgers Office of Disability Services and discuss your case with them. Requests for special accomodations will NOT be honored without a letter from the Rutgers Office of Disability Services requesting the accomodations. Such letters must be presented in a time frame sufficient to allow for the accomodation to be met. To insure your needs will be met this semester, please see the Dean of Disabilities Services ASAP. For more information go to http://disabilityservices.rutgers.edu

ACADEMIC INTEGRITY:

Students are expected to do their own work and abide by the restrictions regarding calculators and testing aids such as formula sheets. Violations will result in a zero grade for the assignment, exam or quiz and possible failure for the course and or further academic discipline for all involved.

PRACTICE PROBLEMS: Changes may be made to the following list of problems as announced in class. They are intended as practice problems for exams. They are not collected or graded. Students are encouraged to practice them all.

Note: Sections 5.1-5.5 in the text are considered review as they were covered in Calc 135.

5.3 (Integration Review)   1-29 odd.

5.4 (Fundamental Theorem of Calculus Review)   1-43 odd, 55.

5.5 (Integration by Substitution)   1-43 odd.

5.8 (Numerical Integration)   1,3,7,11,13,19,21,23,27,29,31.

6.1 (Area Between Two Curves)   1-19 odd, 12,24.

6.2 (Volume)   1-9 odd, 13,15,20, 25-41 odd, 42,55,59.

6.6 (Applications to Business, Economics, and Life Sciences)   5,9,15,17,19,21,23,25,49,53

7.1 (Review of Substitution and Tables)   1-17 odd, 27,31,42,47,53.

7.2 (Integration by Parts)   1-21 odd, 22,26,35,37.

7.3 (Trigonometric Methods)   1-49 odd, 4,12,22,53,57,49.

7.4 (Partial Fractions)   1,2,3-43 odd.

5.6 (Separable Differential Equations)   1-29 odd, 45,47,61,63.

7.6 (First Order Differential Equations)   1,3,5,11,13,23,24,25,28,43.

7.7 (Improper Integrals)   1-45 odd, 47,49.

8.1 (Sequences)   1-33 odd, 42,43,44,45,47.

8.2 (Geometric Series)   1-25 odd, 4,6,8,16,31,33,39,41,49.

8.3 (Convergence Tests)   1,3,4,5,7,9,13,15,17,19,21,23,25,27,29,31,33,43,45,47,51,53,55.

8.4 (Convergence Tests)   1-39 odd, 12,47,53.

8.5 (Ratio and Root Tests)   1-43 odd, 53.

8.6 (Absolute Convergence Alternating Series)   1,3,5,7,9,11,13,17,21,25,31,35,39,49.

8.7 (Power Series)   1,3,5,7,9,11,13,15,17,19,21,23,25,27,31,35,39,49.

G2.1 (Taylor Polynomials)   1,3,5,7,9,13,15,17,19,21,22,27,29,30.

8.8 (Power Series and Taylor Series)   1,3,5,7,11,13,17,19,21,25,31,33,39,49,55,60,69.

G1.1 (Functions of Several Variables)   1-31 odd, 18,24,26.

G1.2 (Partial Derivatives)   1-25 odd, 26,27,28,35.

G1.3 (Maxima and Minima)   1-33 odd.

G1.4 (Constrained Optimization)   1,3,5,7,9,11,13,15,17,19,25,26.

G1.7 (Double Integrals)   1-14.

G1.5 (Least Squares Regression)   1,3,5,7,9,11,13,14.

G1.6 (Non Linear Regression)   1,3,5.