MAT 284, Business Calculus

Fall Semester 2014

Course Description: One-variable differential and integral calculus. Applications to business and economics. MAT 284 may not be taken for credit after successful completion of MAT 285 or MAT 295. (4 credits).

Text: "Introductory Mathematical Analysis" by Haeussler, Paul, and Wood, Custom edition for SU. Pearson, ISBN 9780558697129. Only the book is required. Used copies are fine. The course will cover most of chapters 1-4 and 10-14.

Professor: Yuan Yuan, yyuan05@syr.edu (Carn 317A). Please inform your professor of any problems that you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor without delay.

Office Hour: Thursday 3:30-5:30.

Class Time and Location: Monday and Wednesdays 3:45-5:05 at Physics Building Stolk.

Calculator: A TI-83 calculator or equivalent is required. But calculators with symbolic manipulation capabilities such as the TI-89 or TI-92 may not be used on quizzes or exams.

Prerequisites: Although there are no formal prerequisites, the knowledge of pre-calculus material at the level of MAT 194 is essential for success in this course.

Liberal Arts Core: The sequence MAT 183–284, taken in either order, satisfies the Quantitative Skills requirement of the Liberal Arts Core in the College of Arts and Sciences. However, this sequence is specifically designed for students in the School of Management.

Recitations: Each student enrolled in a lecture section must also be enrolled in a recitation section. In most recitation classes there will be a quiz, so be sure that you attend your recitation. TAs will consider homework problems in the recitations and that is the primary place to get questions answered. You are welcome to attend more than one recitation for additional support, but you must take any quizzes in the recitation for which you are registered.

Cell Phones: All electronic devices other than the calculator should be turned off and put away during class. Calculators on cell phones are not to be used on tests or quizzes.

Midterm Exams: Will be given in class on the days announced by your professor. There will be no make-up exams. A missed exam counts as a zero unless you present a valid excuse from a physician or the Dean's Office. With an acceptable excuse, your missed exam score will be replaced by your score on that portion of the material on the final.

Quizzes will be given in most recitations. One lowest quiz score will be dropped.

Homework will be done online using *WeBWork*, an open-source homework system for math and sciences courses. Access information:
1. Go to http://webwork.syr.edu/
2. Click the class name.
3. Your Username is your NetID, for example jqpublic.
4. Your Password is initially set to be your 9-digit SUID. You should change it after logging in.
   The number of attempts is unlimited. Problems can be done in any order. You do not have to do them all at once. You can also get a PDF file of the entire assignment and print it out to work offline. Two lowest WeBWork scores will be dropped.

Grading: Your numeric grade for the term will be based on three midterm exams (20% each), final exam (25%), homework (5%) and quizzes (10%).

Numeric grade x	Letter grade		Numeric grade x	Letter grade
$0 \le x < 60$	F		$80 \le x < 83$	B-
$60 \le x < 70$	D		$83 \le x < 86$	B
$70 \le x < 73$	C-		$86 \le x < 90$	B+
$73 \le x < 76$	C		$90 \le x < 93$	A-
$76 \le x < 80$	C+		$93 \le x \le 100$	A

Available Assistance:
- Office hours of the instructor and of the teaching assistants.
- Calculus Clinic and Math Clinic: see the schedules at http://math.syr.edu
- Mathematics Department also keeps a list of private tutors at http://math.syr.edu

Additional practice problems for quizzes (from the textbook)

(1.1) 11, 17, 29, 33, 40
(1.3) 1, 3, 5, 7, 9

(2.1) 5, 13, 23, 31, 39
(2.2) 1, 3, 11, 32, 33
(2.3) 3, 7, 11, 15, 17
(2.5) 3, 9, 16, 18, 39

(3.1) 23, 27, 39, 55, 61
(3.2) 5, 15, 17, 21, 23
(3.6) 1, 9, 17, 19, 21

(4.1) 3, 7, 9, 11
(4.2) 3, 9, 19, 31, 59
(4.3) 5, 21, 35, 45, 47

(10.1) 3, 11, 15, 25, 33
(10.2) 13, 21, 23, 33, 41
(10.3) 1, 5, 9, 12, 25

(11.1) 3, 5, 7, 12, 15
(11.2) 17, 25, 33, 45, 47
(11.3) 13, 19, 21, 23, 30
(11.4) 3, 15, 21, 27, 33
(11.5) 1, 7, 11, 19, 25

(12.1) 3, 5, 11, 25, 43
(12.2) 3, 5, 11, 13, 25
(12.3) 3, 5, 15, 17, 19
(12.7) 1, 3, 5, 9, 11

(14.2) 3, 5, 9, 15, 21
(14.3) 1, 11, 13, 15, 21

(13.1) 1, 3, 35, 57, 71
(13.3) 7, 9, 29, 35, 63
(13.4) 3, 5, 8
(13.6) 17, 19, 27, 32, 33

Learning Goals:
- Students will be able to use and understand the usage of mathematical notation
- Students will be able to select an appropriate mathematical model for a given real world problem
- Students will be able to do hand calculations accurately and appropriately
- Students will be able to do calculations with the aid of appropriate hardware and/or software

Tips for success in this course:
- It is absolutely essential that you understand how to solve all the assigned problems. Once you understand how to solve a problem, write your solution down neatly and in full detail with explanations that make your reasoning clear.
- Don't fall behind. If you are having difficulties keeping up with the material, see me immediately to discuss the problem.
- Take advantage of office hours (or of instant messaging for quick questions).
- Discussing problems with a classmate is very useful.
- Questions in class and recitations are strongly encouraged.

- Expect to work hard. Don't get discouraged if you find some of the material difficult. Be persistent and patient.

Students with disabilities. If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Religious observances policy. SU religious observances policy recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holidays according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to are religious observance provided they notify their instructors before the end of the second week of classes. For fall and spring semesters, an online notification process is available through MySlice (Student Services -> Enrollment -> My Religious Observances) from the first day of class until the end of the second week of class.

Academic Integrity. Syracuse University sets high standards for academic integrity. Those standards are supported and enforced by students, including those who serve as academic integrity hearing panel members and hearing officers. The presumptive sanction for a first offense is course failure, accompanied by the transcript notation "Violation of the Academic Integrity Policy". The standard sanction for a first offense by graduate students is suspension or expulsion. Students should review the Office of Academic Integrity online resource "Twenty Questions and Answers About the Syracuse University Academic Integrity Policy" and confer with instructors about course-specific citation methods, permitted collaboration (if any), and rules for examinations. The Policy also governs the veracity of signatures on attendance sheets and other verification of participation in class activities. Additional guidance for students can be found in the Office of Academic Integrity resource: "What does academic integrity mean?" See http://academicintegrity.syr.edu