# Math 284 – Business Calculus

Spring 2016

Instructor & Course Supervisor: Kari Shaw Email: keshaw@syr.edu Office: 305 Carnegie Office hours: Tuesdays & Thursdays: 1:00 – 1:45 & 3:30 – 4:30 Other times by appointment Phone: 443-2650

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

**Class Time & Location:** Lectures meet on TTh 2:00 - 3:20 in Stolkin Auditorium, Physics Building. Check your schedule for your recitation time and place.

**Course Description:** MAT 284 Business Calculus (4 credits) includes one-variable differential & integral calculus with applications to business and economics. MAT 284 may not be taken for credit after successful completion of MAT 285 or MAT295.

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

**Recitations:** Each student enrolled in the course 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. Your TA will complete homework problems, both from the textbook and from the online problems, in recitation and that is the primary place to get questions answered.

**Calculator:** A TI-83 calculator or the 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.

**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.

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

**Textbook Homework:** You should do the assigned problems from the textbook after the relevant section is covered in lecture. These problems are **not** to be handed in, however quiz problems will be partially based on the textbook homework problems. You should ask questions about the homework in recitation.

**Online Homework** will be done online using *WeBWork*, and open-source homework system for math and science courses. Access information:

- 1. Go to webwork.syr.edu
- 2. Click on the class name
- 3. Your username is your SU netID, for example imstudent

4. Your password is initially set to be your 9-digit SUID. You should change it after logging in.

The number of attempts on each problem is unlimited. Problems can be done in any order. You do not have to do them all at once. You have one week to complete each assignment. Assignments are due by 11:00 pm on the days they are due. You can get a PDF file of the entire assignment and print it out to work offline. Online homework will count 5% of your grade. Quiz problems will be partially based on the online homework problems. You may ask questions about the online homework in recitation.

**Quizzes** will be given in most recitations. One lowest or missed quiz score will be dropped. Each quiz will have a mixture of problems similar to WeBWork homework and similar to textbook homework.

Midterm Exams will be given in lecture on Thursdays: February 11, March 10 & April 14.

**Final Exam:** The Final will be given during a two-hour block between 8:00 am and 2:30 pm on Monday, May 9. The exact time and location for the two-hour time slot will be announced in lecturter near the end of the term. The final exam will not be given at any other time. **Do not plan to leave campus before 2:30 pm on Monday, May 9.** 

**Missed Exams:** With a valid excuse, the corresponding portion of the final exam will replace the score for a missed exam.

**Grading:** Your numeric grade for the semester will be based on three midterm exams (20% each), the final exam (25%), online homework (5%) & quizzes (10%). Grades will be assigned according to the following scale:

93 – 100	А	77 – 79	C+
90 - 92	A-	73 – 76	С
87 - 89	B+	70 - 72	C-
83 - 86	В	65 - 69	D
80 - 82	B-	0-64	F

# 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

### **Available Assistance:**

- Office hours of the teaching assistants and of the primary instructor
- Calculus Clinic see the schedule at math.syr.edu
- Time at the end of class meetings

## 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 yo are having difficulties keeping up with the material see your instructor immediately to discuss the problem.
- Take advantage of the help available: Calculus clinic and office hours
- Discussing problems with a classmate or forming a study group can be very useful.
- Questions in class 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 or TDD: (315) 443-1371 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for co-ordinating 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: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to the proper citation of sources in written work. The policy also governs the integrity of work submitted in exams and assignments as well as the veracity of signatures on attendance sheets and other verifications of participation in class activities. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy see http://academicintegrity.syr.edu.

#### Textbook homework problems for quizzes

(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