

## Departmental Syllabus: MAT 284 (Business Calculus) Spring 2019

**This is the common syllabus for all MAT-284 sections.** Each section lecture instructor may provide additional information for their individual section(s). Please make sure that you are familiar with both the common syllabus as well as your section specific information. Contact information and office hours for all math faculty and teaching assistants are also available at <http://math.syr.edu/people/office-hours.html>.

**Course Supervisor:** Please inform your instructor of any problems you have with this course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the course supervisor:

Prof. Moira McDermott, Carnegie 313E, momcderm@syr.edu

**Course Description:** MAT 284 Business Calculus (4 credits). 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.

**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.

**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. Recitation instructors will consider homework problems in the recitations and that is the primary place to get questions answered. You must attend the recitation for which you are registered. Switching recitation section is not allowed unless it is done through MySlice.

**Mathematics Prerequisite:** Although there are no formal prerequisites, knowledge of pre-calculus material at the level of MAT 194 is essential for success in this course. In particular, facility with solving linear and quadratic equations, factoring and multiplying polynomials, and manipulating polynomial, rational, exponential and logarithmic functions is important.

**Textbook:** *Introductory Mathematical Analysis* by Haeussler, Paul, and Wood, second custom edition for SU. Pearson. ISBN: 978-1-323-26203-0. (Can substitute *Intro Math. Analysis*, Haeussler et. al, 13th ed. ISBN: 978-0-321-64372-8) Only the textbook is required. Used copies are fine. The course will cover most of chapters 1-4 and 10-14.

**Calculator:** A TI-83 or TI-84 calculator is required. No other calculators, e.g. TI-Nspire with/without TI-84 keypad, are to be used on tests or quizzes. Further, calculators are not to be shared during exams and quizzes. The TI-84 or TI-83 is the only calculator that may be used on a test or the final exam

**Exams:** See your section specific syllabus supplement for information about exams during the semester.

**Final Exam:** The final exam will be cumulative. All students must take the final exam at the scheduled time which will be a 2-hour block between 8 a.m. and 2:30 p.m. on **Monday, May 6, 2018**. There will be no exceptions. Do not make plans to leave campus before 2:30 p.m. on Monday, May 6, 2018.

**Exam Policies:** All exams (including the final exam) are closed book and closed notes. Cell phones or any other devices capable of wireless communication are not allowed. Student SU-ID's will be checked at the exams. There will be no make-up exams. Please see make-up policy below.

**Exam Time Limit:** Due to the large number of students in the lectures, the instructor may use part of the exam day lecture time for exam administration purposes (setting up exams at the beginning and collecting exams at the end). As such, the time provided to complete the exam may be slightly less than the entire lecture time and exam will have correspondingly appropriate reduced length. If such an adjustment is to be used, it will be announced by the instructor before the exam.

**Quiz:** Starting from the second week of classes, there will be a quiz in recitation similar to the homework problems. Moreover, there might be some quizzes given during the lecture. There will be no make-up quizzes. The lowest (one) quiz score will be dropped.

**Make-up Policy:** There will be absolutely no make-ups for any reason. If you miss a test for a valid reason (which must be verified by a note from a physician or your dean's office), the missing score will be replaced by the final exam. For the specific replacement policy for your section, please contact your lecture instructor.

**Homework:** Homework will be done online using WeBWorK, an open-source homework system. The number of attempts is unlimited. Problems can be done in any order. You do not have to do them all at once. Two lowest WebWorK scores will be dropped. Your instructor will announce the due dates of online homework.

**WeBWorK access information:**

1. Go to <http://webwork.syr.edu/>
2. Click on the class name "MAT\_284\_Spring\_2019\_xxxx" (depending on your lecture instructor's last name).
3. Your username is your NetID in lower case letters (for example, "jqpublic").
4. Your password is initially set to be your 9-digit SUID. You should change it after logging in for the first time. Also, note that even if you used WeBWorK before for another course, the password is reset to the 9-digit student id number.

**Grading:** Your final grade will be based on midterm exams (50%), a cumulative final exam (30%), quizzes, homework, and any other non-exam classwork specific to your section (20%). Final letter grades will be given according to the following scale:

Raw Grade $x$	Letter Grade	Raw Grade $x$	Letter Grade
$93 \leq x \leq 100$	A	$77 \leq x < 80$	C+
$90 \leq x < 93$	A-	$73 \leq x < 77$	C
$87 \leq x < 90$	B+	$70 \leq x < 73$	C-
$83 \leq x < 87$	B	$60 \leq x < 70$	D
$80 \leq x < 83$	B-	$0 \leq x < 60$	F

**Cell Phones:** All electronic devices other than calculators should be turned off and put away during class.

**Attendance:** You are expected to attend every class, every exam, and the final exam. If you miss a class, it is your responsibility to obtain a copy of the lecture notes for that class from another student. You are also responsible for any announcements about changes to the course schedule, the exam schedule, or the course requirements that were made during that class.

**Learning Goals:** Students will be expected to

1. use and understand basic mathematical notation;
2. select and apply an appropriate mathematical model for a given business/ economics problem;
3. do hand calculations accurately and appropriately; and
4. do calculations with the aid of appropriate hardware and/or software.

**Available Student Assistance:** Your lecture instructor and your recitation instructor will hold regular office hours. In addition, the Mathematics Department offers regular free math and calculus clinics which will be set up by the second week of the semester. A schedule of the clinics will be posted outside the math office and will be available online at [math.syr.edu](http://math.syr.edu).

You should see your recitation instructor or your class instructor for questions requiring explanations about problems, concepts etc.; such questions cannot be taken care of by email.

**Free tutoring for MAT 284 this semester:** I encourage you to attend the free small-group tutoring sessions for MAT 284 available through the Center for Learning and Student Success (CLASS). Several tutoring sessions for MAT 284 will be offered each week. The tutors will be trained undergraduate and graduate students who have access to our course information and can help you study efficiently and effectively. Tutoring sessions will be geared to each week's assignments. Visit [class.syr.edu](http://class.syr.edu) to learn when and where sessions meet and how to reserve a spot. (You may also drop in if space is available.)

**Academic Integrity:** Syracuse University's Academic Integrity Policy reflects the high value that we, as a university community, place on honesty in academic work. The policy defines our expectations for academic honesty and holds students accountable for the integrity of all work they submit. Students should understand that it is their responsibility to learn about course-specific expectations, as well as about university-wide academic integrity expectations. The policy governs appropriate citation and use of sources, the integrity of work submitted in exams and assignments, and the veracity of signatures on attendance sheets and other verification of participation in class activities. The policy also prohibits students from submitting the same work in more than one class without receiving written authorization in advance from both instructors. Under the policy, students found in violation are subject to grade sanctions determined by the course instructor and non-grade sanctions determined by the School or College where the course is offered as described in the Violation and Sanction Classification Rubric. SU students are required to read an online summary of the University's academic integrity expectations and provide an electronic signature agreeing to abide by them twice a year during pre-term check-in on MySlice.

For this course in particular, the use of any notes or the use of any devices capable of wireless communication during quizzes and exams (until quiz/exam is handed in to the instructor) is considered to be a violation of the academic integrity policy.

All violations will be reported to the Academic Integrity Office (AIO).

**Students with Disabilities:** If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS) at

<http://disabilityservices.syr.edu>

located in Room 303 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. You are also welcome to contact me privately to discuss your academic needs although I cannot arrange for disability-related accommodations. Making arrangements with ODS takes time. Please do not wait until just before the first exam.

**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. 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.

**Additional practice HW problems (from the textbook):**

Section and Problems	Section and Problems
(1.1) 11, 17, 29, 33, 40	(11.1) 3, 5, 7, 12, 15
(1.3) 1, 3, 5, 7, 9	(11.2) 17, 25, 33, 45, 47
	(11.3) 13, 19, 21, 23, 30
(2.1) 5, 13, 23, 31, 39	(11.4) 3, 15, 21, 27, 33
(2.2) 1, 3, 11, 32, 33	(11.5) 1, 7, 11, 19, 25
(2.3) 3, 7, 11, 15, 17	
(2.5) 3, 9, 16, 18, 39	(12.1) 3, 5, 11, 25, 43
	(12.2) 3, 5, 11, 13, 25
(3.1) 23, 27, 39, 55, 61	(12.3) 3, 5, 15, 17, 19
(3.2) 5, 15, 17, 21, 23	(12.7) 1, 3, 5, 9, 11
(3.6) 1, 9, 17, 19, 21	
	(13.1) 1, 3, 35, 57, 71
(4.1) 3, 7, 9, 11	(13.3) 7, 9, 29, 35, 63
(4.2) 3, 9, 19, 31, 59	(13.4) 3, 5, 8
(4.3) 5, 21, 35, 45, 47	(13.6) 17, 19, 27, 32, 33
(10.1) 3, 11, 15, 25, 33	(14.2) 3, 5, 9, 15, 21
(10.2) 13, 21, 23, 33, 41	(14.3) 1, 11, 13, 15, 21
(10.3) 1, 5, 9, 12, 25	