MAT 285 CALCULUS FOR THE LIFE SCIENCES I

Fall 2017

SECTION 5

Instructor: Professor Philip Griffin Carnegie 304C 443-1480 psgriffi@syr.edu

Office Hours: F 8:30-9:30, 10:30-11:30 and by appointment.

Course Description: This is the first course in a two-course, terminal calculus sequence. It is designed to introduce students to the beauty and power of calculus. Topics include functions, limits, the derivative, tangent lines, curve sketching, exponential and logarithmic functions and the calculus of several variables. Applications to the life sciences are emphasized.

Course Restrictions: MAT 285 may not be taken for credit after successful completion of MAT 284 or MAT 295. Students planning to major in a physical science, engineering or mathematics should take MAT 295.

Prerequisites: MAT 194 or an equivalent pre-calculus course must be successfully completed before taking MAT 285.

Liberal Arts Core: This course is the second course in the Quantitative Skills sequence MAT 194-285. This course is the first course in the Quantitative Skills sequence MAT 285-286.

Text: *Calculus for the Life Sciences*, by Greenwell, Ritchey and Lial; Pearson, 2nd Edition. The course will cover Chapters 1 - 6 and most of Chapter 9 of the text.

Calculator: A graphing calculator is required. The TI-84 calculator is the recommended graphing calculator for this course. Students who already own and know how to use another equivalent calculator (e.g. TI-85 or TI-86) are free to use it. Calculators with symbolic calculus capability (such as the TI-89 or TI-92) are not allowed for exams and quizzes.

Homework and Quizzes: Homework problems can be found at the end of the syllabus. These will not be collected but you should make sure you know how to do all of these problems. A quiz will be given each Wednesday on the previous weeks homework assignment.

Tests: There will be three tests during the semester, each accounting for 20% of your final grade. There will be **no makeup tests**. However, for excused absences, the corresponding portion of the final exam will be used in place of the missing test score.

Final Examination: The final exam is comprehensive and accounts for 20% of the final grade. All MAT 400 and lower have a departmental final exam during the time block 8:00 AM to 2:30 PM on Wednesday, December 13, 2017. The MAT 285 final exam will be scheduled for a two-hour period during this block. The precise time and location of the final exam will be announced in class later.

STUDENTS MUST TAKE THE FINAL EXAM AT THE LISTED TIME. DO NOT PLAN TO LEAVE CAMPUS BEFORE 2:30 PM ON WEDNESDAY, DEC. 13, 2017. THERE ARE NO PROVISIONS FOR TAKING THE FINAL EXAM AT ANY OTHER TIME! **Grading:** The final score will be computed on a scale of 0 to 100 from the tests (60%), quizzes (20%), and the final exam (20%). The final letter grade will be determined as follows:

	A 93-100;	A- 90-92;
B+ 87-89;	B 83-86;	B-80-82;
C+ 77-79;	C 73-76;	C-70-72;
D 60-69;	F 0-59.	

Course Objectives and Learning Goals:

• To reinforce prior understanding of functions, including linear, polynomial, exponential, logarithmic and trigonometric functions.

• To understand what a derivative is, how to find derivatives (limits, formulas), and how derivatives can be used.

• To correctly use and understand the usage of mathematical notation.

• To develop critical thinking and problem-solving skills.

Help: Your instructors will be available regularly during their office hours. You can also seek help at the Calculus Help Center. The location and hours of operation will be posted outside of the Math Department Office (215 Carnegie Hall); you can obtain a copy of the schedule in the Math Dept. Office.

Students with Disabilities: If you believe that you need academic adjustments (accommodations) for a disability, please contact the Office of Disability Services (ODS), visit the ODS website– 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 academic adjustments. ODS is responsible for coordinating disability-related academic adjustments and will issue students with documented Disabilities Accommodation Authorization Letters, as appropriate. Since academic adjustments may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

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 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

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.

Resolving Problems: Please inform your instructor of any problems that you have with the course. Problems not satisfactorily resolved with your instructor should be brought to the attention of the Course Supervisor without delay.

Course Supervisor:	Professor Jack Graver (This person may not be your instructor.)
Office:	300C Carnegie
Phone:	443-1576
Email:	jegraver@syr.edu

Important Dates:

Add Deadline:Tuesday, September 5Academic Drop DeadlFinancial Drop Deadline:Monday, September 18Withdrawal Deadline:

Academic Drop Deadline: Monday October 23 Withdrawal Deadline: Friday November 17

	Date		Date	
Aug	28	1.1, 1.3	30	1.4, 2.1, 2.2
Sept	4	No Class	6	2.2, 2.3
Sept	11	2.3	13	2.4
Sept	18	3.1, 3.2	20	3.3
Sept	25	3.4	27	3.5
Oct	2	Review	4	Test 1
Oct	9	4.1, 4.2	11	4.3, 4.4
Oct	16	4.5	18	46, 5.1
Oct	23	5.2	25	5.3
Oct	30	Review	1	Test 2
Nov	6	6.1	8	6.2
Nov	13	6.3	15	6.4
Nov	20	No Class	22	No Class
Nov\Dec	27	9.1, 9.2	29	9.2, 9.3
Dec	4	9.3 & Review	6	Test 3
Dec			13	Final Exam

Tentative Class Calendar

MAT 285 Assignments Fall 2017

These assignments are made from the 2^{nd} edition of the text and do not always match with the problems in the 1^{st} edition with the same number. You are responsible for working the correct problems.

Sect.	pages	Assigned Problems
1.1	13-17	Every 7 th from 7 to 70; every 3 rd starting with 72.
1.3	37-40	Every 7 th from 7 to 63; every 2 nd starting with 67.
1.4	13-17	Every 7 th from 7 to 49; every 3 rd starting with 50.
2.1	80-84	Every 7 th from 7 to 35; every 3 rd starting with 37.
2.2	92-96	Every 7 th from 7 to 70; every 3 rd starting with 75.
2.3	100-102	Every 5 th from 5 to 25.
2.4	114-117	Every 7 th from 7 to 77; every 3 rd starting with 78.
3.1	142-146	Every 7 th from 7 to 98.
3.2	152-155	Every 5 th from 5 to 45.
3.3	164-167	Every 5 th from 5 to 45.
3.4	181-185	Every 5 th from 5 to 55.
3.5	189-191	Every 3^{rd} from 3 to 24.
4.1	209-213	Every 5 th from 5 to 50; every 3 rd starting with 51.
4.2	218-220	Every 5 th from 5 to 40; every 3 rd starting with 42.
4.3	227-229	Every 5 th from 5 to 50; every 3 rd starting with 51.
4.4	235-239	Every 5 th from 5 to 65.
4.5	244-246	Every 5 th from 5 to 55; every 3 rd starting with 57.
4.6	253-254	Every 5 th from 5 to 37; every 3 rd starting with 39.
5.1	270-273	Every 5 th from 5 to 50; every 3 rd starting with 51.
5.2	281-284	Every 5 th from 5 to 40; every 3 rd starting with 45.
5.3	294-298	Every 7 th from 7 to 77; every 3 rd starting with 78.
6.1	323-325	Every 5 th from 5 to 40; every 3 rd starting with 45.
6.2	333-336	Every 5^{th} from 5 to 40.
6.3	341-342	Every 5 th from 5 to 35; every 3 rd starting with 39.
6.4	347-349	Every 3 rd starting with 3.
9.1	472-476	Every 5 th starting with 5.
9.2	482-486	Every 5 th from 5 to 45; every 3 rd starting with 48.
9.3	493-496	Every 5 th starting with 5.