

MAT 285 - CALCULUS FOR THE LIFE SCIENCES I **Summer 2016**

Section 1: Monday to Thursday 12:00 – 1:45; 104 Slocum Hall

Instructor: Qian Huang Office: 105A Archbold Email: qhuang04@syr.edu
Office Hours: Monday and Wednesday 2:30pm to 3:30pm

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 or TI-83 calculator is the recommended graphing calculator for the 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. A calculator with symbolic calculus capability (such as the TI-89 or TI-92) is not allowed for exams.

Homework: Homework will be assigned on Blackboard every Monday and collected (in written format) on the following Monday. There will be five homework sets in total. The lowest score will be dropped, and the average of the other four is your grade of homework, which accounts for 20% of your final grade.

Examinations: There will be two midterm exams during the semester, each accounting for 25% of your final grade. The final exam is comprehensive and accounts for 30% of the final grade. All the exams will be in-class, closed book/notes, and there will be **no make-ups** for the midterm exams or the final. The final exam will be scheduled on August, 11th.

Grading: The final score will be computed on a scale of 0 to 100 from the two midterm exams (50%), homework (20%), and the final exam (30%). 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.

Class Attendance and Participation: You are expected to attend and participate in class. Your success will be limited without your full attendance and participation. If you miss a class, you are responsible for obtaining notes for that class from a student who attended. It is your responsibility to find out about any announcement concerning homework or exams that were made during the 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 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>.

Students With Disabilities: Students who may need academic accommodations due to a disability are encouraged to discuss their needs with the instructor at the beginning of the semester. In order to obtain authorized accommodations, students must be registered with the Office of Disability Services (ODS), 804 University Avenue, Room 309, 315-443-4498, and have an updated accommodation letter for the instructor. Accommodations and related support services such as exam administration are not provided retroactively and must be requested in advance. 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. Do not wait until just before the first test.

Religious Observances Policy: Syracuse University's religious observances policy, found at http://supolicies.syr.edu/emp_ben/religious_observance.htm

recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days 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 a 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.

Important Dates:

Add Deadline: Thursday, July 7

Financial Drop Deadline: Tuesday, July 12

Academic Drop Deadline: Wednesday, July 27

Withdrawal Deadline: Friday, August 5

Tentative Class Calendar

	Date		Date		Date		Date	
Jul			5	1.1&1.3	6	1.4&2.1	7	2.2&2.3
Jul	11	2.3&2.4	12	3.1&3.2	13	3.2&3.3	14	3.4&3.5
Jul	18	4.1&4.2	19	4.3&4.4	20	4.5&4.6	21	Exam 1
Jul	25	5.1&5.2	26	5.2&5.3	27	5.3&6.1	28	6.2&6.3
Aug	1	6.3&6.4	2	6.4&9.1	3	9.2	4	Exam 2
Aug	8	9.2&9.3	9	9.3	10	Review	11	Final Exam

* Notice that the class schedule is tentative, and it could be changed according to the actual lectures.