



MAT 286 – CALCULUS FOR THE LIFE SCIENCES II FALL 2015

Course supervisor Dr. Abdellatif Bourhim
Office: Carnegie 313J
Phone: 315-443-2549
E-mail: abourhim@syr.edu
Office Hours: Tuesday and Thursday: 2:00PM-3:10PM or by appointment.

Course Description: This is the second course in a two-course, terminal calculus sequence. It is designed to introduce students to the beauty and power of calculus. Topics include anti-differentiation, integration, areas and volumes, double integrals and differential equations. Applications to the life sciences are emphasized.

Course Restrictions/ Prerequisites: MAT 285 must be successfully complete before taking MAT 286. Students planning to major in a physical science, engineering or mathematics should take MAT 295-296-397 sequence.

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

Text: *Calculus for the Life Sciences*, by Greenwell, Ritchey and Lial; Addison Wesley, 2nd Edition. The course will cover Chapters 7, 8, part of Chapter 9 and Chapter 11.

Calculator: A graphing calculator is required for this course and the TI-84 or TI-83 calculator is recommended. 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 and quizzes.

Homework and Quizzes: Homework assignments will be announced weekly in class and posted on blackboard.syr.edu. Specific homework and quiz policies will be announced during the first class. Be fully prepared for each class and expect a quiz every lecture.

Tests: There will be three in-class midterm exams and a final exam during the semester, each accounting for 20% of your final grade. There will be **no makeup tests**, and a missed examination counts as a zero unless you present a valid excuse from a physician or the Dean's office. With the written excuse, the score of the final exam will be counted twice, towards the missing test and the final exam.

Test Corrections: An essential part of the testing process is to learn from your mistakes. Hence students not getting an A on a test are required to submit correct solutions to all of the problems missed.

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 16, 2015. The MAT 286 final exam will be scheduled for a two-hours 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, DECEMBER 16, 2015. 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%), homework, quizzes and test corrections (20%), and the final exam (20%). The final letter grade will be determined as follows:

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

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: 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.

Course Objectives and Learning Goals:

- To reinforce prior understanding of functions, including linear, polynomial, exponential, logarithmic and trigonometric functions.
- To understand what an integral is, how to compute integrals (limits, formulas), and how integrals can be used.
- To correctly use and understand the usage of mathematical notation.
- To develop critical thinking and problem solving skills.

Help: Your instructor will be available regularly during his 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.

Important Dates:

- Add Deadline: Tuesday, September 08, 2015
- Financial Drop Deadline: Monday, September 21, 2015
- Academic Drop Deadline: Monday, October 26, 2015
- Withdrawal Deadline: Friday, November 20, 2015

Tentative Schedule

Day	Date	Section(s)
Tuesday	09/01	7.1
Thursday	09/03	7.1 & 7.2
Tuesday	09/08	7.2 & 7.3
Thursday	09/10	7.3
Tuesday	09/15	7.4
Thursday	09/17	7.5
Tuesday	09/22	7.6
Thursday	09/24	Review
Tuesday	09/29	Test1
Thursday	10/01	8.1
Tuesday	10/06	8.2
Thursday	10/08	8.2 & 8.3
Tuesday	10/13	8.4
Thursday	10/15	8.4
Tuesday	10/20	9.5
Thursday	10/22	9.5
Tuesday	10/27	Review
Thursday	10/29	Tes2
Tuesday	11/03	11.1
Thursday	11/05	11.1
Tuesday	11/10	11.2
Thursday	11/12	11.3
Tuesday	11/17	11.6
Thursday	11/19	11.6
Tuesday	12/01	Review
Thursday	12/03	Test3
Tuesday	12/08	Catch up
Thursday	12/10	Catch up
Wednesday	12/16	Final Exam