

MAT 286 - CALCULUS FOR THE LIFE SCIENCES II
Spring 2016

Class Meetings: Tuesday and Thursday, 2:15pm – 3:35pm in Carnegie Room 110

Instructor: Jennifer Jordan Edmond

Office: 105C Archbold

Office hours: Tuesday 1:00-2:00, Wednesday 10:30-11:30 and by appointment

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Course Description: This is the second and final course in a sequence designed to introduce you to the beauty of calculus and its power to describe the world around us. Applications to the life sciences are emphasized. Our goals include:

- Develop a clear and intuitive picture of single and multivariable integrals and first order differential equations. Solve them from a graphical, numeric, and algebraic point of view.
- Reason with integrals and differential equations and explain your reasoning clearly and precisely with correct mathematical notation.
- Apply integrals and differential equations to model the world, including applications in life sciences and business.
- Expand your critical thinking and problem solving skills to apply integrals and differential equations to unfamiliar problems.

This is the second course in the Quantitative Skills Sequence MAT 285-286 for liberal arts core. MAT 285 is a prerequisite. Students planning to major in a physical science, engineering, or mathematics should take the MAT 295-296-397 sequence.

Text: *Calculus for the Life Sciences*, by Greenwell, Ritchey and Lial; Addison Wesley, 1st Edition. The course will cover Chapters 7, 8, part of Chapter 9 and Chapter 11.

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 and quizzes.

Clicker Questions: Occasionally in class we have discussions based on clicker questions. We will use the free smartphone app **Socrative**. Please download the application in the first week. If you do not have a smartphone come see me. There will be another option.

Final Examination: The final exam is comprehensive and accounts for 20% of the final grade. Your final exam during a 2 hour time block between 8:00 AM to 2:30 PM on Monday, May 9, 2014. 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 MONDAY, MAY 9, 2014.
THERE ARE NO PROVISIONS FOR TAKING THE FINAL EXAM AT ANY OTHER TIME!

Exams: There will be three exams during the semester, each accounting for 15% 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.

Test Corrections: An essential part of the testing process is to learn from your mistakes. Hence test corrections will be required. More information on test corrections will be provided after the first exam. Test corrections count as a quiz grade.

Homework: Homework problems will be assigned each class. Homework will be collected on Tuesdays. **Late homework will not be accepted.** Working together on homework is encouraged but merely copying homework assignments from other students and from the Internet is considered academic dishonesty. This will not be tolerated.

Quizzes: Thursday classes will include a quiz on the previous week's assignments. There will be no makeup quizzes: quiz scores and test correction scores will be averaged for 15% of your grade.

Grading: The final score will be computed on a scale of 0 to 100 from the tests (45%), homework (15%), quizzes and test corrections (35%), 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.	

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Academic Integrity violations will not be tolerated. Students who violate the policy will be reported to the office of academic integrity. 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.

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: Margaret Doig—317H Carnegie—443-1578—midoig@syr.edu

Important Dates:

Add Deadline: Tuesday, January 26

Academic Drop Deadline: Tuesday, March 22

Financial Drop Deadline: Tuesday, February 9

Withdrawal Deadline: Tuesday, April 19

Tentative Class Calendar

	Date		Date	
Jan	19	7.3	21	7.3
Jan	26	7.1	28	7.4 (quiz)
Feb	2	7.4	4	7.5 (quiz)
Feb	9	7.2	11	7.2 (quiz)
Feb	16	Review	18	Exam 1
Feb	23	8.2	25	8.2
Mar	1	8.3 (corrections due)	3	8.3 & 8.4 (quiz)
Mar	8	8.4	10	9.5 (quiz)
Mar	15	Spring Break	17	Spring Break
Mar	22	Review	24	Exam 2
Mar	29	11.1	31	11.1 & 11.2
Apr	5	11.2	7	11.3 (corrections due)
Apr	12	11.4	14	11.5 (quiz)
Apr	19	11.6	21	11.6 (quiz)
Apr	26	Review	28	Exam 3
May	3	Final Exam Review	5	