

MAT 251: Calculus for Life Sciences Spring 2011 Course Syllabus

Instructor: Dr. Jenifer Boshes	Office Hours: Mon 5:00-6:00, Tues 3:00-4:00, Wed 12:00-1:00, Thurs 3:00-4:00 and by appointment
E-mail: jboshes@asu.edu	Office: UCENT 360P
Class Number: 24036	Office Phone: (602) 496-0572

Required Text:

Calculus for the Life Sciences, 1st Edition; by Bittinger, Brand, and Quintanilla; Addison-Wesley Publishing; ISBN 0-321-27935-2

Prerequisites:

Students are expected to have completed MAT 170 (Precalculus) or an equivalent with a grade of C or better or to have scored a 60 or higher on ALEKS.

Calculator:

A graphing calculator is required for this course. The highly recommended models are TI-83 and TI-83 Plus. Any calculator that has a computer algebra system (CAS) will not be allowed on exams and quizzes. This includes, but is not limited to, the Casio FX2, Casio 9970GS, TI-89 and TI-Titanium. If a student is found using one of the models that is not permitted on an exam, the student will receive (at minimum) a zero for that exam. Cellular phone calculators are not permitted. Also, the sharing of calculators is not allowed on exams or quizzes.

Homework:

No late homework will be accepted and in-class work that is missed cannot be made up. Online homework is assigned regularly through a program called WeBWorK (<http://webwork.asu.edu/>). Find the "Boshes" link under "MAT 251" and then log in using your ASURITE ID and password.

Hand-written will be announced in class and posted on Blackboard. Hand-written work must meet the following criteria to be accepted:

- All relevant papers are stapled together.
- It is written legibly and submitted on time (at the *beginning* of class).
- All answers are boxed and there are no spiral notebook shreds.
- The upper right-hand corner shows: Name, class time, and assignment.
- All work is shown. No work = No credit (even if the answer is correct).

Midterm exams:

You will take three exams during the semester. Each will involve a mix of mechanical skills and conceptual reasoning. The best preparation is regular attendance and completion of assigned homework. Makeup exams are given at the discretion of the instructor and only in the case of a verified medical or other documented emergency.

Exam	(Tentative) Date
Exam 1	Feb 3
Exam 2	Mar 10
Exam 3	Apr 21

Final exam:

The *cumulative* final exam will be taken in the regularly assigned classroom according to the final exam schedule. According to ASU policy, final exams can be rescheduled only under the following circumstances: (1) religious observance, (2) two finals scheduled at the same time, or (3) more than three exams scheduled on the same day. No final exams will be rescheduled for personal reasons.

Final Exam: Tuesday, May 10th at 12:10PM
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Tentative Schedule		
Week of	Topics	Exams
Jan 17	1.1: Slope & Linear Functions	
Jan 24	1.2, 1.3: Polynomial Functions; Rational & Radical Functions	
Jan 31	4.1, 4.2: Exponential Functions; Logarithmic Functions	Exam 1
Feb 07	1.4, 1.5, 2.1: Trigonometric Functions; The Unit Circle; Limits & Continuity	
Feb 14	2.2-2.4, 2.6: Limits; Avg Rates of Change; Differentiation; Instantaneous Rates of Change	
Feb 21	2.5: Differentiation Techniques	
Feb 28	2.7, 2.8: Differentiation Techniques; The Chain Rule	
Mar 07	2.8: The Chain Rule	Exam 2
Mar 14	Spring Break!	
Mar 21	4.5, 2.5: The derivatives of a^x and $\log_a x$; Differentiation	
Mar 28	2.9, 3.1: Higher-Order Derivatives; Using First Derivatives to find Max/Min	
Apr 04	3.2, 3.4, 3.5: Using Second Derivatives to find Max/Min; Finding Absolute Max/Min;	
Apr 11	5.1, 5.5, 5.6: Integration; Substitution; Integration by Parts	
Apr 18	5.2: Areas and Accumulations	Exam 3
Apr 25	5.3, 5.4, 5.9: Fundamental Theorem of Calculus; Definite Integrals; Improper Integrals	
May 2	5.9, review: Improper Integrals	

Make-Up Policy:

Make-up exams are only given in the case of documented immediate family/medical emergencies. There are no exceptions to this policy. Please note that work emergencies do not constitute family/medical emergencies. Arrangements for any make-ups must be done within one week of the exam. There are no make-ups for homework.

Student Success Center:

The Student Success Center, located on the first floor of University Center, re-opens for the semester on January 22, 2011. Hours TBA. Be sure to go for help before it is too late and several days before an exam. Additional information on the Student Success Center can be found on their webpage at: <http://studentsuccess.asu.edu/downtown>.

Attendance:

All students are expected to come to class each day prepared to discuss assignments and material being presented in class. During class, any student can expect to be called upon to answer questions posed by the instructor and other students. Moreover, part of being prepared for class involves bringing all course materials to class, including your calculator. Statistics show that students who regularly come to class tend to do better than students who skip class every now and again. **Only three (3) unexcused absences will be allowed during the semester. The fourth absence is grounds for the student earning a grade of EN (failure due to lack of attendance) for the semester.**

Final Grade Breakdown:

Point Allocation	
Three midterm exams	50%
Homework & group work	25%
Final exam	25%

Grades			
97-100%	A+	79.5-80%	B-
90-97%	A	77-79.5%	C+
89.5-90%	A -	70-77%	C
87-89.5%	B+	60-70%	D
80-87%	B	0-60%	E

Additional Information & Recipe for Success:

- Turn off any cellular phones prior to entering class. Blatant cellular phone usage (i.e., text messaging) during class is not tolerated and will negatively affect the student’s participation grade for the semester.
- You are permitted to use your laptop during class to access Blackboard for class-related resources. Students found using a laptop during class for non class-related resources (i.e., checking e-mail or Facebook) will have his or her participation grade negatively affected.
- Classroom disturbances, including but not limited to: arriving late, leaving early, leaving during the middle of class, talking during lecture, and cellular phones, are not tolerated. Each student is expected to show respect for every student registered in the course. Recurring disturbances caused by an individual will result in an administrative withdrawal from the course.
- The highest standards of academic integrity are expected of all students at all times. Violations of academic integrity include, but are not limited to, cheating, fabrication, tampering, plagiarism, or facilitating such activities. We will act very harshly against any acts of academic dishonesty during quizzes or exams.
- Students with disabilities should arrange to meet with me as soon as possible to arrange for reasonable accommodations for their learning needs. Students registered with DRC must notify the instructor at least one week prior to any exam.
- Arrangements for any religious observances, ASU sanctioned activity, or ASU student athlete obligations must be arranged with the instructor at least one week prior to the event.
- No individual extra credit assignments will be offered.
- I reserve the right to make changes to this syllabus as necessary. Changes will be considered official if they are announced in class or posted on Blackboard.
- Always attend class. Absences and final grades are negatively correlated.
- Try to work homework problems without the aid of notes or the textbook.
- Identify problem areas and get help immediately.
- Form study groups to tackle homework and exam review. Discuss concepts verbally and aim for collective understanding.

Important Dates	
Course Withdrawal (in person)	Friday, April 8, 2011
Course Withdrawal (online)	Sunday, April 10, 2011
Complete withdrawal	Tuesday, May 3, 2011