

Fall 2007 Daily 8:10 – 9:00 (Section AX/AH)

Instructor: Jon Freedman
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Office Hours: M W F 9:30 – 10, Tu 11 – 12:30, Th 11 – 1

Prerequisite: Math 120 with C or better, or appropriate score on placement test.

Important Details: (1) If you plan to take Math 242 , Math 130 is a prerequisite – so take it before you take M241.
(2) This course is designed (and transfers for) Life science and Business majors. **Do not** take this course if you are a Chemistry, Physics, Engineering, or Math major. Check with the school(s) you plan to transfer to verify that this course satisfies their requirements.
(3) Transfer: UC, CSU (B4)

Text: Waner, Stefan, and Steven R. Costenoble. *Applied Calculus*.
4th Ed. Belmont: Thomson Higher Education, 2007.

Materials: A TI-84 (or TI-83+) graphing calculator is required for this course. Other graphing calculators may perform the same functions and may be acceptable but see me about this. If you have a TI-89, TI-92, or other technology that can perform symbolic manipulations you may not be allowed to use it on some forms of assessment.

Important Dates: Last day to Add this course: Wednesday, September 5
Last day to Drop this course without a W: Wednesday, September 5
Last day to Withdraw from class: Tuesday, November 20
Holidays: 9/3; 11/9; 11/22 – 11/25
Last regular class: Friday, December 14
Final Exam (comprehensive): Wednesday, December 19 8:10 – 10:40 am

Assignments: A group homework quiz consisting of boxed problems from the current assignment will be given roughly every other class unless otherwise noted. There will be no make-up quizzes given. The last class of every week the assignments for the week will be collected. 50% of your homework grade comes from group HW quizzes and the other 50% comes from completed assignments. If you do not complete the assignment in time for the group quiz, you may receive partial credit (25%) for getting the boxed problems checked (and signed off) in the TLC and submitting them with the assignments due at the end of the week.

Grading: Assignments (homework, classwork, quizzes) (30%)
3 – 5 Tests (50%)
Final (20%)
I will drop your worst test score (Not the final). There will be no makeup tests. If you are late for a test you will have only the remaining time to complete the test (so don't be late). If you know you are going to miss a test date, contact me at least three days in advance and we can arrange an alternate test to be taken in advance of the class test date.
I will excuse two homework quizzes and one week-long assignment set (or drop your lowest score if you submit all of them). I will give quizzes often. I will drop your worst quiz. There will be no makeup quizzes.

Grading Scale: $A \geq 90\%$
 $80\% \leq B < 90\%$
 $70\% \leq C < 80\%$
 $60\% \leq D < 70\%$
 $F < 60\%$

Attendance: You will not be graded directly on your attendance. However, your involvement in class and your participation in the process of discovering concepts will be fundamental in your understanding of algebra. Tests will be based largely on material discussed and practiced during class.

Withdrawal Policy: If you decide to drop this class you must do so formally either by using WebSMART or by filing the correct form with the registrar's office. If you miss more than 10 hours of class and still desire to remain in the class you must meet with me and convince me that you can learn the material necessary to pass the class.

Course Contents: We will cover the majority of Chapters 1 through 5, as well as some supplemental materials. By the completion of the course you will be able to demonstrate the following skills:

- For each of the functions:
 - Linear
 - Quadratic (with some general polynomial and power)
 - Exponential
 - Logarithmic
 - Logistic

you will be able to take any one of the representations: Data Table, Graph, Formula, and use technology or algebraic manipulation to generate the other two.

- Additionally, you will recognize and derive the relationship between each function and Contextual Applications relevant to that function.
- You will be able to use the graphing calculator to help you analyze complex functions, derive formulas from data, and perform various calculus-related analyses on a function.
- You will demonstrate your understanding of the derivative through (correct) numerical approximation, graphical means, symbolic manipulation, and contextual application.
- You will understand the relationship between limits, continuity, and differentiability.
- You will be able to apply the derivative in situations involving local linearity (e.g. L'hospital's Rule), and implicit differentiation (e.g. inverse function derivatives).
- You will solve application problems involving graphing, related rates, and optimization targeting the fields of business, life science, and physics. You will be able to reason the correct calculus-based or algebraic means of solving problems in these and related subjects.

Tutoring: The Learning Center (TLC) is a good resource for semi-free tutoring in all of your classes. You should visit TLC at the slightest sign of confusion or just as a place to sit and work in a supportive environment.
Think seriously about joining MESA. If you have any interest in Mathematics, Engineering, or Science you should join MESA and make use of their tutoring and counseling services.
The publisher offers a pay-to-play vMentor that you may want to investigate.

Assistance: In Coordination with the DSP&S office, reasonable accommodations will be provided for qualified students with disabilities. If you have an accommodation letter, please meet with me during my office hours to discuss your needs. For more information, please contact DSPS office in building 2) at 738-4280.

Academic
Dishonesty:

I strongly encourage you to form study groups and to work together to understand the material covered in this class. Explaining a concept is a valuable way for you and the listener to develop your insight and your skills. Simply copying work, whether it is from an assignment or a test, is of no value to you academically. Consequently, if I find that you are submitting any part of another's work as your own, you will not receive credit for this course. The same holds true for any other kind of academic dishonesty. There is no situation that could arise in this class that would justify risking expulsion. If you are having any difficulty, PLEASE see me about it so that we can work together in resolving the issue.