

Summer 2006

Math 5v06.06A

TR 4:00 – 5:30 p.m.

Mathematics Preparation

FN 2.106

MS in Biotechnology I

Course Syllabus

Instructor: Dr. Gregory Kramer, ECSN 2.512,  
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Hours: TR 3:30 – 4:00 p.m. and by appointment outside these times

Text: Schaum's Outline of Calculus. Elliott Mendelson, Frank Ayres.  
Calculus, Fourth Edition.

We will cover most of the textbook, but lectures will not be verbatim recitals from the text, so you are expected to take comprehensive lecture notes. The course concerns logarithmic and exponential functions, infinite sequences and series, differential, integral and vector calculus, introduction to discrete mathematics and differential equations.

Objective: To provide an understanding and motivation of the fundamental ideas of calculus, discrete mathematics, differential equations, skill in using the techniques and facility in applying to core courses in Biotechnology I.

Tests: There will be one in-class Midterm test and the Final Examination

Homework: Homework problems will be assigned, but will not be collected or graded. The questions about the homework problems will be answered during class.

Grading Policy: Your final score will be determined by your final exam (FE), midterm exam (MT) and quizzes (Q) percentage scores according to the following weighting: 45% (FE) + 35% (MT) + 20% (Q)

Quizzes: There will be 5 quizzes given weekly except on exam weeks. The lowest one score or missed quiz will be dropped. Each quiz will be worth 25 points.

Grades: A letter grade will be assigned according to the scale as usual:

A: 90 – 100,                      B: 80 – 89  
C: 70 – 79                         F: 0 – 69

No D grade will be given in the class.

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Class Calendar (subject to change)

Week	T	Topics	R	Topics		
1	5/16	Review of advanced algebraic topics: exponential and logarithmic functions	5/18	Matrices	Q I.	
2	5/23	Infinite sequences, series	5/25	Differential Calculus	Q II.	
3	5/30	Differential Calculus	6/1	Midterm Exam		
4	6/6	Integral Calculus: Indefinite Integral	6/8	Definite Integral	Q III.	
5	6/13	Vector Calculus: functions of several variables, gradient	Q IV.	6/15	Intro to difference and differential equations	QV.
6	6/20	Final Exam at 4:00 p.m.				