

Syllabus

Math 321-A: Calculus and Analytic Geometry III

Fall, 2001

Course Description:

This course provides a study of advanced techniques of differential and integral calculus, including infinite sequences and series, three-dimensional analytic geometry including vectors, differentiation and integration of multivariable functions, and applications. A graphing calculator is required. Prerequisite: MTH 221. Offered fall and spring.

Class Time: MF 9:20–10:15 AM, TTh 10:30–11:50 AM

Instructor: Jeff Clark

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WEB PAGE: <http://frodo.elon.edu>

Office Hours: MW 1:20–3:00 PM, TTh 3:00–4:00 PM

Help Session: Wednesdays, in our classroom 9:20–10:15 AM.

Required Materials:

1. *Calculus* by Larson, Hostetler, and Edwards.
2. TI-89 calculator from Texas Instruments.

Course Objectives:

1. To be able to manipulate and analyze infinite series, particularly with respect to convergence and divergence.
2. To be able to manipulate, compute with, and graph functions of more than one variable.
3. To be able to differentiate multivariable functions, and find extrema using partial derivatives.
4. To be able to calculate and analyze multiple integrals.

Feedback and Evaluation:

1. Weekly problem sets will be worth 20% of your final grade.
2. There will be three projects, each worth 10% of your final grade.
3. There will be three exams, each worth 10% of your final grade.
4. The final exam will be cumulative and will be worth 20% of your final grade.
5. I grade on a ten-point scale:

93–100	A
90–92	A-
87–89	B+
83–86	B
80–82	B-
77–79	C+
73–76	C
70–72	C-
67–69	D+
63–66	D
60–62	D-
0–59	F

Schedule

Date	Reading	Exam
Week of August 27	9.1–9.4	
Week of September 3	9.5, 9.6, 10.1, 10.2	
Week of September 10	10.3–10.5	
Week of September 17	10.6–10.7	Exam #1 on 9/21
Week of September 24	11.1–11.3	Proj. #1 on 9/28
Week of October 1	11.4, 11.5, 12.1	
Week of October 8	12.2–12.4	
Week of October 15	12.5–12.7	
Week of October 22	12.8–12.9	Exam #2 on 10/26
Week of October 29	13.1–13.3	Proj. #2 on 11/2
Week of November 5	13.4–13.6	
Week of November 12	13.7, 13.8, 14.1	
Week of November 19	14.2–14.4	
Week of November 26	14.5–14.7	Proj. #3 on 11/26
Week of December 3	14.8	Exam #3 on 12/4
December 10	8:00–11:00	Final Exam

HONOR CODE

All Elon University students are expected to adhere to the university's Honor Code:

http://www.elon.edu/students/handbook/academic_honor_code.asp

For our class, that specifically requires:

- That you do not claim other people's work as your own. *You must cite explicitly the work that you use, whether it be by the author of a text or a classmate.* (You need not cite me or our text.)

You certainly should not copy the work of other students, be it inside or outside of the classroom.

- That you speak and write truthfully.
- That you express your opinions with civility and respect for those around you.

These requirements should not be new to you; they reflect common courtesy in a university setting.

If you violate the Honor Code, you will be spitting on my work and the work of the other students in the class. I will report any such violations to the Office of Academic Affairs for prosecution.