

Math 5A - Syllabus

Differential Equations and Linear Algebra

Summer Session A 2012

Course:

Lecture: MTWR 2:00PM-3:05PM, TD-W 1701

Webpage: <http://www.math.ucsb.edu/~plunkett/teaching/index.html>

Textbook: Differential Equations and Linear Algebra, Farlow et. al., ISBN 0-536-35756-0

Lecturer:

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Course Description:

Math 5A is the second course of a two quarter sequence in differential equations and linear algebra. In differential equations, the emphasis is divided between quantitative and qualitative aspects: you will learn how to provide closed-form solutions to certain linear differential equations, and also qualitatively determine the stability of equilibrium points. For the linear algebra portion of the class, the emphasis will be placed on applying the techniques of linear algebra to the theory of systems of linear differential equations.

Grading:

Homework: 40%

Midterm: 30%

Final: 30%

Homework:

Homework will be conducted through WebWork, and will be assigned every Friday. You will have one week to complete each homework. **No extensions, no exceptions.**

Exams:

The midterm will cover material from the first half of the class (Chapters 4 and 5), and the final will cover material from the whole class, with an emphasis on the latter half of the class.

The final exam will take place on the last day of class, Aug. 2.

Regrade Policy: I will regrade tests if you so desire. However, you must submit your request **in writing** attached to your exam, with your **specific issue** with the exam. You must tell me exactly which part of which problem you believe was graded incorrectly. Once I've accepted request, I will regrade the **entire exam**. This means that **your score could go up or down**. Submit requests at your own risk.

Resources:

Schedule:

Note: **This schedule is subject to change!**

*: Time permitting.

- Week 1:
 - *June 25*: Section 4.1
 - *June 26*: Section 4.2
 - *June 27*: Section 4.3
 - *June 28*: Section 4.4
- Week 2:
 - *July 2*: Section 4.5
 - *July 3*: Section 4.6*
 - *July 4*: No Class
 - *July 5*: Section 5.1
- Week 3:
 - *July 9*: Section 5.2
 - *July 10*: Section 5.3
 - *July 11*: Section 5.4
 - *July 12*: Review
- Week 4:

- *July 16*: **Midterm**
- *July 17*: Section 6.1
- *July 18*: Section 6.2
- *July 19*: Section 6.3

- Week 5:
 - *July 23*: Section 6.4
 - *July 24*: Section 6.5
 - *July 25*: Section 6.6
 - *July 26*: Section 6.7

- Week 6:
 - *July 30*: Section 7.1
 - *July 31*: Section 7.2*
 - *August 1*: Review
 - *August 2*: **Final Exam**