Course Syllabus

Summer 2014 Math 54 Lec 005 (Dis 501)
Linear Algebra and Differential Equations

1. Course information (simple)

- Instructor

  DongGyu Lim (*limath@math.berkeley.edu*)
  844 Evans

- Class hours

  MTWTF 4:10PM-6PM
  6 Evans

- Course Webpage

  http://math.berkeley.edu/∼limath/Su14Math54
  I recommend you **to check this webpage at least once a day.**

- Office hour

  MWF 2:30PM-3:30PM
  844 Evans

2. Course information (detailed)

- What will you learn?

  How to decide the number of solutions for a set of linear equations
  How to find the closest solution if there is no exact solution

  What the *determinant* or *eigenvalues and eigenvectors* are

  Homogeneous Linear Differential Equations

- Schedule

  Linear Equations, Matrix Algebra, Determinants : Week 1 and 2
  Vector Spaces, Eigenvalues and Eigenvectors : Week 3 and 4
  Orthogonality and Least Squares, Quadratic Forms : Week 4 and 5
  Second or Higher-order Linear Differential Equations : Week 6 and 7
  Matrix Methods for Linear Systems, PDE : Week 7 and 8

- Grading

  Quiz : 10%
  Homework : 15%
  Midterm 1 : 20%
  Midterm 2 : 25%
  Final : 30%

- Homework

  Every Tuesday and Friday, twice a week, you submit your homework. On
  the first week, you have only one Homework set due Friday (June 27th).
  There will be total **15** sets of Homework.

- Exams

  Midterm 1 (**July 9th, Wednesday**) and Midterm 2 (**July 25th, Friday**)
  will be only about Linear Algebra part.
  One Quiz (**August 8th, Friday**) will cover Differential Equations part.
  Final (**August 15th, Friday**) will cover overall materials.

- Important Dates

  Cancel Registration - June 20, 2014
  Class Begins - June 23, 2014
  Withdraw or Drop for Refund - June 27, 2014
  Withdraw or Drop (no Refund) - July 7, 2014
  Change Grading Option - August 1, 2014
  Class Ends - August 15, 2014

3. General information

- Prerequisites

  seemingly but not necessarily 1B

- Textbooks

  Linear Algebra and Its Applications, 4th edition by Lay
  Fundamentals of Differential Equations, 7th edition by Nagle, Saff, Snider

  OR *Linear Algebra & Differential Equations, Custom Edition for UC Berkeley* by Lay, Nagle, Saff, Snider

- Grading Policy

  As a guideline, the grade distribution for Math 54 in the recent years was roughly 25% A, 35 % B, 25% C, and 15% D/F.