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

  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.