# MATH 1522 SYLLABUS

Spring 2012

Instructor: Ruodu Wang

Office: Skiles 164, 404-894-6500 Lectures: MWF 3:05-3:55 Skiles 202

Office hours: MW 4:00-5:00 and by appointment

E-mail: ruodu.wang@math.gatech.edu

Website: http://www.math.gatech.edu/~rwang60

Course page: http://www.math.gatech.edu/~rwang60/pages/spring12.html

Course title: Linear Algebra for Calculus

Text: Linear Algebra and its Applications, 4th Edition, by D.C. Lay.

MyMathLab course ID: wang27786

The best way to reach me is to send an email.

# MATERIALS AND SCHEDULE

Topic	Text Sections	Lectures
Solving Systems of Linear Equations	1.1-1.2 in Lay	3
Vectors, Geometry of $\mathbb{R}^n$ , and Solution Sets	1.3-1.5 in Lay	4
Linear Independence and Linear Transformations	1.7-1.9 in Lay	2
Matrix Operations and Matrix Inverses	2.1-2.3 in Lay	2
LU Factorization	2.5 in Lay	2
Subspaces, Bases, Dimension, Rank	2.8-2.9 in Lay	2
Determinants	3.1-3.2 in Lay	2
Vector Spaces	4.3 in Lay	1
Eigenvalues and Eigenvectors	5.1-5.3 in Lay	3
Diagonalization of Symmetric Matrices	7.1-7.2 in Lay	2
Inner Products and Orthogonality	6.1-6.3 in Lay	3
Gram Schmidt and QR	6.3-6.4 in Lay	3
Least Square	6.5 in Lay	1
		30

# GRADING SYSTEM

## Homework

Homework will be assigned using MyMathLab at http://www.mymathlab.com/.

# Quizzes

There will be several 20-minute quizzes, given at the end of class on several Fridays. You will be notified at least two days prior to the quizzes. Quizzes will be based on the lecture material and homework assignment.

#### Tests

There will be two in-class tests, tentatively scheduled on the following Fridays:

- Test 1, February 17;
- Test 2, April 6.

No books, notes, calculators or electronic devices can be used during the tests and quizzes.

#### Final exam

The final exam will cover all course materials and will be administered on the date assigned by the official school calendar. You must take the final exam on the officially scheduled date. The proposed time and date is 2:50pm - 5:40pm, May 4th.

#### Grading scale

The final average will then be computed using the following percentages:

- Homework 10%
- Quizzes 20%
- Tests 40%
- Final Exam 30%

Tentative grading scale:

```
A: [90%,100%]; B: [80%, 90%); C: [70%,80%); D: [60%, 70%); F: [0, 60).
```

### **CLASS POLICIES**

#### Attendence

You are expected to come prepared and actively participate in every class meeting. No laptops, iphones, ipads, etc... during the class unless you are assigned otherwise.

### Academic dishonesty

All students are expected to comply with the Georgia Tech Honor Code. Academic dishonesty will not be tolerated.

### Regrading of papers

If a problem on your test or quiz has been graded in error, you must submit a regrade request to me in writing, along with your paper, no more than one week after the tests or quizzes have been returned in class.

### Make-ups

No make-up exams or quizzes. If you have to miss an hour test for a valid reason (illness or emergency) please let me know as soon as possible. In that case the final exam will be given a higher weight.

## MyMathLab

You are required to use MyMathLab at http://www.mymathlab.com/ for electronic learning and homework assignments. The course ID is wang27786.

Please see the sign-up information posted on the "Resources" tab of t-square. You will need to purchase a code for MyMathLab in order to complete the on-line homework assignments. MyMathLab comes with an entire electronic version of the textbook; thus, it is not necessary to purchase a hardcopy of the text unless you prefer to do so. You may purchase a MyMathLab code either from the bookstore or on-line at coursecompass.com, or if you prefer to own a hardcopy of the text, the bookstore offers a package with a loose-leaf version of the textbook that is less expensive than purchasing the text and code separately.

When signing up for MyMathLab, it will be helpful to me (for grading purposes) if you will set your STUDENT ID to your USERID for the GT system (i.e., your T-square USERID, as in gburdell3, etc).