

**Numerical Linear Algebra , Spring 2007**

**SYLLABUS, INFORMATION AND GRADING POLICIES**

**Course** : Mathematics 314

**When and where** : TuTh, 12:30pm-1:45pm, Classroom MSB 411.

**Instructor** : Dr. Vadim Olshevsky

Office: MSB M314

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**Web page** : <http://www.math.uconn.edu/~olshevsky>

**Office hours** : TT, 2:45pm-3:45pm, except for the meetings.

Questions I can quickly answer are welcome right after class.

**Textbook** : Applied Numerical Linear Algebra , by James Demmel. (SIAM , 1997, ISBN 978-0898713893 )

**Schedule** :

Tuesday, Jan 16	First class
Monday, Jan 29	Courses dropped after this date will have a "W" for withdrawal recorded on the academic record
Sunday, Mar 4	Spring recess begins
Saturday Mar 10	Spring recess ends; classes resume
Monday Mar 26	Last day to drop a course
Thursday Apr 26	Last class

**Midterms and Final** :

There will be several homework assignments, two midterms and a final.

The two exams and final will be closed book, with a non-graphing calculator, and a letter-size page of handwritten notes allowed.

Homework assignments will be posted on the bottom of the class web page, and are due at the start of class for each due date. As a general rule, no late homeworks will be accepted.

**Course Grade** :

Homework 20%, first and second midterm 25% each, final 30%

There are absolutely no make-ups (except for medical and emergency reasons), so any absence from an exam results in an automatic zero for that exam.

After averaging everyone's scores and adding the "attendance" bonus, if any, I use a ten-point-span for each letter grade. So 90-100 is an "A", 80-89 is a "B", 70-79 is a "C", 60-69 is a "D" and below 60 is an "F". Averages are rounded to the nearest integer.

**Bonus** :

A small bonus of 0-3 points will be given (at my discretion) at the end of the semester to some students; this is based on class attendance, participation, and other intangibles and is added to averages only of students who are on a grade borderline.

**Topics** :

- Linear Equations Solving
- Least Squares
- Nonsymmetric Eigenvalue Problem
- Symmetric Eigenvalue Problems
- SVD
- Krylov subspace methods
- Lanczos algorithm

*Please note that this course syllabus provides a general plan for the course; deviations may be necessary.*