

Math 581 – Advanced Numerical Analysis
Fall 2005
Monday and Wednesday, 19:00-20:15, JR212

- Instructor:** Dr. Rabia Djellouli
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- Office Phone:** (818) 677-5867 (24 hours voice mail)
- Departmental Phone:** (818) 677-2721
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- Office Hours:** Monday, Wednesday, 10:00–11:00, or by appointment.
- Textbook:** **No text book is required.** However, the following books are suggested for reading.
- An Introduction to Numerical Analysis, by Kendal E. Atkinson, 1989.
 - Numerical Analysis, By David Kincaid and Ward Cheney, 2002.
 - Numerical Analysis, By Richard L. Burden and J. Douglas Faires, 2001
- Topics Covered:** This course will be based on the following four cornerstones
- Matrix theory
 - Direct solution methods for linear systems
 - Iterative solution methods for linear systems
 - Methods for computing eigenvalues
- Exams:** There will be three in-class tests (Tentative Schedule: September 28th, October 26th, and November 30th) and a comprehensive exam (Monday, December 12th, 2005, 20:00–22:00).
- All exams are closed book. The lowest midterm score will be dropped. There will be no make up exams.
- Homework:** The due date for the Homeworks is specified on the day of the assignment. You can work in groups, but you must turn in your own write-up. Your lowest two homework

scores will be dropped. No late homework is accepted.

Quizzes: Quizzes may be introduced to help the class to keep-up.

Programming: There will be two programming assignments. You can use your preferred programming language. You can work in groups, but you must turn in your own write-up. Your lowest programming assignment score will be dropped.

Grading Scheme:

- 100 points – homeworks + quizzes
- 50 points – each programming assignment
- 100 points – each midterm
- 200 points – Final exam
- 600 points – Total Score

Religious Conflicts: Students who have conflict between religious observance dates and course examinations or assignments, please contact me before September 21st, 2005.