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Numerical Analysis II Information Sheet

MATH 465 Winter 2000

- Class Web Site: http://faculty.washington.edu/rag/CLASSES/m465
- Room and Hours:
 - Lectures: EE1 026 (Changed to this as of 12/22/99), 9:30-10:20, MWF,
 - Quiz Section: EEB 318 9:30-10:20 Th
- Lecturer: David L. Ragozin, e-mail : rag@u.washington.edu
 - Office: Padelford C-337, Phone: 543-1148
 - Office Hours: Monday and Wednesday, 1-2PM, and by appointment.
 - Stop me after class to find a time if posted hours are not possible. Please do no hesitate to come to see me. It is much better to raise questions as soon as they occur, rather than get farther behind.
- TA: Greg Arden

Office: Padelford C-8E,

Office Hours: To be announced

- Texts:
 - *Numerical Analysis, 2nd Ed.* by Lee Johnson and R.Dean Riess (out of print) reprint available from Professional Copy 'n' Print, 42nd and University Way.
 - Introduction to Scientific Computing: A matrix-vector approach using Matlab, by Charles Van Loan. Available from University Book Store.
- Content: We shall cover topics corresponding to parts of Chapters 3,4,5,6. This will include:
 - 1. Numerical calculation of eigenvalues.
 - 2. Numerical solution of polynomial equations.
 - 3. Numerical solutions of systems of non-linear equations.
 - 4. Orthogonal polynomials and least squares approximation.
 - 5. Gaussian Quadrature.
 - 6. Introduction to Fast Fourier Transforms .
 - 7. Possible introduction to Wavelet Transforms.
- Homework:
 - <u>Assignments</u> due at each Friday. See schedule. Working the assigned problems is essential to learning the material. Homework *should be handed in on time*, to allow the TA time to grade them before the next Thursday quiz session.
 - When you write up a home work or test solution or a computing project report, *your* work should show that you understand the methods involved. It is not enough to just give a numerical, or yes/no answer; explanations or supporting work shouldalways be supplied.
- Exams:
 - There will be one midterm exam and a final. For each exam in class, you will be allowed one 8.5 by 11 handwritten sheet of notes (both sides or two sheets for the final). Scientific calculators can be used on exams if helpful, but only for standard numerical calculations, no symbolic and specially programmed calculations are to be done.

- Some of the exams may have a take-home part. This will be handed out*the class before the in-class exam* and will be handed in with your in-class exam. Any take home exams are to be worked entirely on your own, using the text and handouts as references, but not consulting or comparing work with any other people.
- Computing Projects: There will be 4 computing projects:
 - 1. Jan. 24 Inverse Power Method
 - 2. Feb. 14 Bairstow's Method
 - 3. Feb. 28 Orthogonal Polynomials
 - 4. Mar. 10 Fast Fourier Transform
- Exam Schedule:

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First examFebruary 11, 2000Final ExamExam time and date for your section can be found in the<br/>Official UW Exam Schedule
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- **Grades:** Grades are based on exams, projects, and homework. Approximate weights for each component is as follows:
 - Mid-term exam 20%
 - All projects 20%
 - Final 40%
 - Graded homework 20%

Approximate grade guidelines(for the course and for each exam):

GRADE	RANGE	%	Cc	rr	ect
4.0			>	85	8
3.0 -	3.9	70	%	-	84%
2.0 -	2.9	55	%	-	69%
1.0 -	1.9	40	%	-	54%
0.0			<	40	8

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