

COT 4500, Numerical Calculus

Spring 2009, January 7 – April 27, 2009 (Final exam period April 28 through May 4)

Instructor: Dr. S. Lang (207 Harris Center, 407-823-2474, lang@cs.ucf.edu)

Office Hours: 3 – 5 pm, Monday and Wednesday

Text: Numerical Analysis, 8th ed., Burden and Faires, Thomson Brooks/Cole, 2005

Topics: Chapters 1 – 7

Course Objectives:

- To understand the mathematical foundation used in numerical methods
- To understand numerical algorithms and their time and space complexity analysis
- To understand how numerical methods are used in solving problems in sciences and engineering applications
- To practice numerical methods using computer programs and packages

Course Work:

- Class attendance (5%)
- Homework assignments, including possibly lab work using MatLab (25%)
- Two Tests (20% each), test dates will be announced one week in advance
- Final Exam (30%), see UCF's final exam schedules posted at <http://www.registrar.sdes.ucf.edu/calendar/exam/>

Grading Policy:

- Homework assignments are due in class on the due dates; no late assignments are accepted unless prior arrangements are made
- No make-up tests or exam unless prior arrangements are made
- Homework (and tests) represent individual work, no “team” work or plagiarism will be accepted
- Grades are based on the straight-percentage scale, i.e., A (90% or up), B (80 – 89.99%), C (70 – 79.99%), D (60 – 69.99%), and F (below 60%); plus/minus grades will be used sparsely (if at all)

Academic Integrity and Student Conduct: Please read and understand student rights and responsibilities including conduct rules clearly stated in UCF's **golden rules**, available at http://www.goldenrule.sdes.ucf.edu/2e_Rules.html

Course Website and Announcements: www.cs.ucf.edu/courses/cot4500/spr2009 (updated frequently)

Online Resources: The authors' course website <http://www.as.yzu.edu/~fares/Numerical-Analysis/> includes computer program source codes for the algorithms discussed in the text, and an errata sheet.