Instructor  | Dr. S. Lang  
| 203 CSB, (407) 823-2474  
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Office Hours:  
Tuesday: 4 – 5:45 pm  
Thursday: 4 – 5:45 pm

Teaching Assistant  | Sherri Sparks  
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Office Hours:  
Monday: 2 – 4:30 pm  
Wednesday: 2 – 4:30 pm


Library Reserved References:  
[5] Rawlins, Compared to What?

Prerequisites: Two semesters of Calculus (differential and integral); discrete computational structures including induction, sets, relations/functions, trees, graphs, counting techniques, discrete probability, recurrence equations, finite automata and Turing machines

Web Resources:  
- Course website: [http://www.cs.ucf.edu/courses/cot5405/summer2006](http://www.cs.ucf.edu/courses/cot5405/summer2006) and UCF WebCT  
- Useful background materials: My lecture notes on Discrete Structures and on Computer Science III (Data Structures); Dr. Workman’s notes on Discrete Computational Structures  
- [Algorithms and Data Structures](http://www.cs.princeton.edu/~rs/AlgsData.html): Notes by Professor R. Sedgewick, Princeton University  
- [Dictionary of Algorithms and Data Structures](http://www.nist.gov/itd/dads/): A website maintained at NIST

Topics by Lectures (and by Cormen et al.’s text chapters):  
- Mathematical Preliminaries (Chapters 1 – 4, 3 lectures)  
- Computational Complexity (Chapter 34, 3 lectures)  
- Searching, Sorting, Order Statistics (Chapters 5 – 7, 9, 3 lectures)  
- B-trees, Binomial Heaps, Set Structures (Chapters 17 – 19, 21, 3 lectures)  
- Greedy Algorithms (Chapters 16, 22 – 24, 3 lectures)  
- Dynamic Programming (Chapters 15, 25, 3 lectures)  
- Backtracking, Branch-and-Bound (2 lectures)

Grading Policy:  
- Homework (25%) – proofs, calculations, and designing algorithms in a pseudocode  
  (Note: Homework reflects individual work and is due in the beginning of the class in hardcopies typed up or written in legible form; no email or late submissions accepted unless prior arrangements are made)  
- Test #1 (35%) – Tuesday, June 22, 2006, 6 – 7:50 pm in class.  
- Test #2 (40%) – Thursday, August 3, 2006, 6 – 7:50 pm in class.  
  (Note: Grades are based on the straight percentage scale (i.e., A: 90% or above; B: 80 – 89%; etc.); plus/minus grades will be used rarely 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, at [http://www.goldenrule.sdes.ucf.edu/2e_Rules.html](http://www.goldenrule.sdes.ucf.edu/2e_Rules.html).