Syllabus

COT 3100: Applications of Discrete Structures

Course Information
Term: Summer 2009
Credits: 3
Prerequisites: MAC 2233, MAC 2311 or MAC 3472
Co-requisites: CIS 3020 or CIS 3023
Website: www.cise.ufl.edu/class/cot3100su09/

Instructor: Nathan VanderKraats
Office: CSE E-445
Email: ndv(AT)cise.ufl.edu
Office Hours: TBD

Lecture Time: M W F, Period 2 (9:30am - 10:45am)
Lecture Place: MCCB 2102 (McCarty Hall B)

Teaching Assistant: Yuchen Xie
Office: CSE E-309
Email: yxie(AT)cise.ufl.edu

Discussion Session: Tuesday, Period 2
Discussion Place: MCCB 2102

Course Description
Applications of Discrete Structures is an introductory survey of the mathematical tools needed for a successful career in computer science. Central content includes:

- Propositional and Predicate Logic
- Mathematical Proof Techniques and Strategies
- Sets, Sequences, Summations, and Functions
- Algorithm Design and Analysis, including Computational Complexity
- Mathematical Induction and Recursion
- Combinatorics
- Discrete Probability Theory
- Graphs and Trees

The precise content of the course will evolve as the term progresses, according to time constraints and student interests. Unlike many computer science courses, the subject matter places an emphasis on mathematical reasoning, critical thinking, and analysis over memorization.
Course Textbook

The official textbook for the course will be the SIXTH edition of “Discrete Mathematics and its Applications” by Kenneth Rosen, McGraw Hill 2006, ISBN: 0072880082. A fifth edition of this book is also available; however the homework assignments will be based primarily on the sixth edition of the book. Hence, it is ENTIRELY your responsibility to locate the appropriate topics or exercises should you choose to use the fifth edition of the book. No excuse regarding any confusion on this matter will be entertained. Please note that STUDENTS’ SOLUTIONS to selected exercises are also available for this book. Feel free to use them, though it is obviously recommended that you attempt to solve all problems yourself first for your own practice instead of rushing to look at available solutions.

Links to the book:

(Make sure you purchase the correct edition of the book, i.e. the SIXTH edition)


Published Errata:

Grading

The course grades will be determined largely by in-class examinations and quizzes, with some additional grades for homework. Quizzes will be given in class roughly once per week. No regrades will be allowed for quizzes; however, at the end of the summer each student’s lowest two quiz scores will be dropped. Homework will be assigned as necessary, roughly once per week. There will be two in-class midterm examinations and an in-class, cumulative final examination.

Overall grades in the course will be determined as follows: 25% for the Final, 20% for each of the two midterm exams, 20% for the in-class quizzes, and 15% for homework.

The final grading scale will be:

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<th>A</th>
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<th>C+</th>
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<td>80-83</td>
<td>77-79</td>
<td>74-76</td>
<td>70-73</td>
<td>67-69</td>
<td>64-66</td>
<td>60-63</td>
<td>57-59</td>
<td>&lt;=56</td>
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The instructor reserves the right to curve grades upward at the end of the term, but you should assume that the final course grades will NOT be curved.
Important Note: Remember that, effective with the Summer 2009 term, the UF grading scale has been changed to include minus grades. The intent is to provide instructors with more options for assigning grades. Please see www.registrar.ufl.edu/DDD.doc for details.

Course Policies

Attendance: Attendance of lectures and discussion sessions is highly recommended, but not required. It is your responsibility to keep up with the course material. No makeup quizzes will be given for reasons of absence or tardiness.

Announcements: It is solely YOUR responsibility to check the course website for information pertaining to announcements or updates. The website is: http://www.cise.ufl.edu/class/cot3100su09/

Cell Phone Policy: Turn cell phones on SILENT or OFF during class. Please refrain from any behavior that may distract your classmates from learning, such as chatting, accepting phone calls or messages, or doing non-course-related activities on a laptop. Violators may be asked to leave.

Makeup and Late Submission Policy: Makeup tests for the midterm and final examinations, will be given ONLY if you provide official documentation for a VALID excuse, submitted prior to the time of the exam in question. For foreseeable conflicts, you must schedule a makeup date with the instructor at least ONE WEEK prior to the exam date.

Because the lowest two quizzes will be dropped, no makeup quizzes will be given. Late homeworks will be accepted ONLY in the case of medical problems that span the entire period starting from the day the homework was assigned until the day that it was due. Official documentation such as a doctor’s certificate is absolutely required in all such cases.

Regrade Policy:

All regrade requests for homeworks, quizzes, and examinations should first be taken to the TA. If you are unable to resolve the issue, then bring the request to the course instructor. Please note that a regrade request may result in a lower grade for your assignment, should the regrader determine that too many points were awarded in the first evaluation. All regrade requests should be made within ONE WEEK of when the assignment was returned in class. No exceptions shall be made for students who do not attend a class where assignments are returned.

Honesty Policy
All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

**Accommodation for Students with Disabilities**

Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

**UF Counseling Services**

Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:
- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling
- SHCC mental Health, Student Health Care Center, 392-1171, Personal and Counseling
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling

**Software Use**

All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.