

CMPE 16

Applied Discrete Mathematics

Summer 2008 (June 23 – August 13)

Description:

Introduction to applications of discrete mathematical systems. Topics include sets, functions, relations, graphs, trees, switching algebra, first order predicate calculus, mathematical induction, permutations, combinations, summation, and recurrences. Examples drawn from computer science and computer engineering.

Prerequisites:

Eligibility to enroll in Mathematics 19A (completion of Mathematics 2B or 3 or Mathematics Placement Exam score of 40 or higher) or completion of Mathematics 19A or 11A.

Time and Place: MW 10:00-12:30 Social Sciences 1 110

Class Webpage: <http://www.soe.ucsc.edu/classes/cmpe016/Summer2008/>

Class Webforum: <http://forums.soe.ucsc.edu/viewforum?f=30>

Instructor: Patrick Tantalo (<http://www.soe.ucsc.edu/~ptantalo/>)

Email: ptantalo@soe.ucsc.edu

Office: E2 257

Office Hours: MTWTh 12:30-2:00 pm, or by appointment

Phone: 831-459-3898

Teaching Assistant: Alamelu Sankaranarayanan <alamelu@soe.ucsc.edu>

Office hours TBA

Required Text: *Discrete Mathematics and its Applications* by Kenneth H. Rosen, 6th edition, published by McGraw-Hill (2007). We will cover sections 1.1-1.7, 2.1-2.4, 3.4-3.5, 4.1-4.3, 5.1-5.5, 6.1-6.2, 7.1-7.2, 8.1, 8.3, 8.5, 11.1-11.2. If time permits, we may also cover selected topics from sections 6.3-6.4, 7.5-7.6, 8.6, and 11.3-11.4.

Coursework and Evaluation:

Homework will consist of written assignments taken from the exercises at the end of each section. Written homework will be graded only as to its completeness, not correctness. Its purpose is to prepare students for quizzes and the final exam. The first of six **Quizzes** will be held on **Wednesday July 2**, then every Wednesday thereafter, up to August 6. A complete schedule of quizzes and quiz solutions will be found on the webpage. The **Final Exam** will be held on the last day of class **Wednesday August 13, 10:00am - 1:00pm**. Please make arrangements to be available at that time.

Coursework will be weighted as follows:

| | |
|-------------------|------------|
| Homework | 10% |
| Quizzes | 40% |
| Final Exam | 50% |

The grading scale for the class will be approximately: A+::97%-100%, A::93%-96%, A-::90%-92%, B+::87%-89%, B::83%-86%, B-::80%-82%, C+::76%-79%, C::70%-75%, D::60%-69%, F::0%-59%. Letter grade boundaries may be lowered at my discretion in order to eliminate some borderline cases.

Academic Honesty:

In recent years, there has been an increased number of cheating incidents in many UC campuses, and unfortunately, UCSC is no exception. The Baskin School of Engineering has a zero tolerance policy for any incident of academic dishonesty. If cheating occurs, consequences within the context of the course may range from getting zero on a particular assignment, to failing the course. In addition, every case of academic dishonesty is referred to the students' college Provost, who sets in motion an official disciplinary process. Cheating in any part of the course may lead to failing the course, suspension or dismissal from the Baskin School of Engineering, or from UCSC.

What is cheating? In short, it is presenting someone else's work as your own. Examples would include copying another student's written homework assignment, or allowing your own work to be copied. Although you may discuss problems with fellow students, your collaboration must be at the level of *ideas* only. Legitimate collaboration ends when you "lend", "borrow", or "trade" *written solutions* to problems, or in *any way* share in the act of *writing* your answers. If you do collaborate (legitimately) or receive help from anyone, you must credit them by placing their name(s) at the top of your paper.

Please go to http://www.ucsc.edu/academics/academic_integrity/ to see the full text of the University's policy on Academic Integrity.