

<i>University of Connecticut</i>	
CSE 2500 Introduction to Discrete Systems	Kiayias
Tue/Thu 9:30-10:45 at Castleman 201	Syllabus

Instructor. Aggelos Kiayias.

Office: ITE Building 243.

Office Hours: Tuesday 2pm - 4pm and by appointment.

Contact Information: <http://www.cse.uconn.edu/~akiayias/>

TA. Hieu Dinh. hdinh@cse.uconn.edu, Office Hours TBA.

Textbook: (required) Discrete Mathematics and Its Applications by Kenneth H. Rosen McGraw Hill

Class Web-site. (for announcements, hand-outs and other information).

<http://www.cse.uconn.edu/~akiayias/cse2500fa08/>

Homeworks. There will be weekly homework assignments. Each student must produce his / her own writeup. Plagiarizing will not be tolerated — do NOT give your full solutions to be copied by other students, you will not receive credit. On the other hand, discussing homeworks and their possible solutions with other students is allowed (but without revealing the writeup of a full solution). Assignments will be due in the **first 10 minutes** of every **THURSDAY**. Later than that (e.g., 11 minutes) and no full credit will be given.

Tests. There will be two tests: one midterm and one final. These will be all inclusive, closed-books, closed-notes tests.

Grading. Homeworks 25%, Midterm 30%, Final 45 %

What is this class. This is the Discrete-Math course of your Computer Science and Engineering curriculum. Every science and engineering discipline has a some branch(es) of mathematics associated with it. For CSE this is Discrete-Math.

What will be covered. This is a tentative schedule for the 14 weeks of the semester. Note that this is only an outline and it will be amended according to our pace during the semester.

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| 1. Introduction. Notation. Mathematical Induction. | 8. Graphs. Isomorphism. Representation. Notations. |
| 2. Functions. Relations. Equivalences. | 9. Euler graphs. Connected graphs. Trees. |
| 3. Subsets. Permutations. Factorials. Binomial Coefficients. | 10. Planar graphs. Coloring of graphs. |
| 4. Estimates and asymptotic notation. | 11. Combinatorial Games. |
| 5. Inclusion/exclusion. | 12. Discrete Probability. |
| 6. Boolean Logic. | 13. The Probabilistic Method. |
| 7. Review / Midterm. | 14. Generating Functions. |