CS4384/5349 Automata Theory

(ECSS 2.311 4:00-5:15pm MW)

Name: Ding-Zhu Du (instructor) Office: ECSS 3-611 Office Hours: 2:30-3:45pm Tue
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Textbooks: Ding-Zhu Du and Ker-I Ko, Problem-Solving in Automata, Languages, and
Complexity, John-Wiley, 2001;

Topics:
Week 1: Strings and languages;
Week 2: Regular sets and graph representation;
Week 3-6: Finite automata;
Week 7-8: Context-free languages and push-down automata.
Week 9-10: Turing machines;
Week 11-12: Computability and undecidability;
Week 13: Computational complexity;
Week 14: NP-hard problems.

Assignments: There will be five assignments (only four top scores will be counted). Each
assignment will be due at the time as shown in my homepage. No late assignment
will be accepted. It is possible that the exam for cs5349 may contain a different set
of problems from cs4384.

Examinations: There will be three examinations. The 1st midterm examination (for
Chapters 1-2) is on 10/1, the 2nd midterm examination (for Chapter 3-4-5) is on
11/10. The final examination (for Chapters 5-7) is at 2pm on 12/12. All examinations
are in class (open books/notes). It is possible that the exam for cs5349 may contain
a different set of problems from cs4384.

Weights of Assignments and Exams: Each assignment 10%; each examination 20%.
Grades will be assigned according to the total points as follows: A ≥ 85 > B ≥ 70 >
C ≥ 50.