## CS 476 Automata Theory and Formal Languages

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ASSISTANT: Mehmet Karahan Office: EA 425 E-mail: mehmet.karahan@cs.bilkent.edu.tr Office hour: Monday 15:40-16:30 or by appointment

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TEXTBOOK: Introduction to the Theory of Computation, 2nd Edition, Michael Sipser, Course Technology, 2005. (The first edition from PWS Publishing Company, 1996, is also acceptable.)

GRADING: Attendance: 3%Quiz: 20%Homework:  $20\%^1$ Midterm: 27%Final: 30%

Syllabus:

- Finite automata
- Regular expressions and languages
- Context-free grammars and languages
- Pushdown automata
- Turing machines
- Decidability
- Complexity theory and NP-completeness
- Selected topics

 $<sup>^1\</sup>mathrm{For}$  pass/fail decision, the grade without homeworks must be sufficient as well as the grade with homeworks.