



Course Code-Name	CSE354 : Automata Theory & Formal Languages
Course Schedule	
Instructor	Emin Erkan Korkmaz (A-408) (216) 578 04 26 (x-1426) ekorkmaz@cse.yeditepe.edu.tr
Teaching Assistant	Gökhan Akgün (B-405) (216) 578 07 47 (x-1747) gakgun@cse.yeditepe.edu.tr
Textbook	Automata Theory, Languages and Computation, by John E. Hopcroft, Rajeev Motwani, Jeffrey D. Ullman. (Pearson - 3 rd Edition)
Supplementary Materials	Google
Course Outline	<p>Week-1 Introduction, Proof Methods</p> <p>Week-2 Finite Automata</p> <p>Week-3 Regular Expressions</p> <p>Week-4 Properties of Regular Languages</p> <p>Week-5 Decision Properties of Regular Languages</p> <p>Week-6 Context Free Grammars (CFGs) and Ambiguity</p> <p>Week-7 Push Down Automata (PDA)</p> <p>Week-8 Equivalence of PFA and CFG (Midterm)</p> <p>Week-9 Operations on CFGs</p> <p>Week-10 Closure Properties of CFGs</p> <p>Week-11 Turing Machines and Complexity</p> <p>Week-12 Other Turing Machine Models</p> <p>Week-13 Decidable and Undecidable Languages</p> <p>Week-14 NP-Complete Problems</p>
Midterm Dates	There is one mid-term and a final exam. Midterm - Week 8
Grading	Assignments 25% Midterm 35% Final 40%
Attendance	80%

Course Outcomes

1. Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied information in these areas to model and solve engineering problems.

(Matematik, fen bilimleri ve bilgisayar mühendisliği disiplinine özgü konularda yeterli bilgi birikimi; bu alanlardaki kuramsal ve uygulamalı bilgileri, karmaşık mühendislik problemlerinde kullanabilme becerisi.)