

**BLG311E – Formal Languages and Automata****2016-2017 SPRING**

	<b>CRN: 22171 – 22082</b>
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**Textbook:** J.E. Hopcroft, J.D. Ullman, *Introduction to Automata Theory, Languages and Computation – Second Edition*, Addison-Wesley, 2001

Week	Topic	RECITATIONS
1 (7/9 Feb)	Finite State Machines - Definitions and Models	
2 (14/16 Feb)	Finite State Machines - State reduction and state equivalency	Recitation 1 Homework 1
3 (21/23 Feb)	Mathematical Foundations of Formal Languages - Inductive definitions, Alphabets and languages	Quiz 1
4 (28 Feb/02 Mar)	Mathematical Foundations of Formal Languages - Relations and closures, Languages and Grammars	Rec 2 - HW2
5 (07/09 Mar)	Mathematical Foundations of Formal Languages - Chomsky Hierarchy, Regular Expressions	Rec 3 - HW3
6 (14/16 Mar)	MIDTERM I – 14 <sup>th</sup> of March	
7 (21/23 Mar)	Automata - Deterministic Finite Automata	Rec 4 – HW4
8 (28/30 Mar)	SPRING BREAK	
9 (04/06 Apr)	Automata - Non-Deterministic Finite Automata	Q2
10 (11/13 Apr)	Automata - NFA/DFA equivalency	Rec 5 – HW5
11 (18/20 Apr)	Automata – Pumping Lemma	Q3
12 (25/27 Apr)	MIDTERM II – 25 <sup>th</sup> of April	
13 (02/04 May)	Push-down Automata and Context-free Languages	Rec 6 – HW6
14 (09/11 May)	Push-down Automata and Context-free Languages	Q4
15 (16/18 May)	Turing Machines	Rec 7

**Grading**

- Homeworks will not be graded, however students should deliver at least 3 homeworks to pass
- Quizzes: 10%
- Midterm: 50%
- Final exam: 40%.
- To enter the final exam you must attend at least 70%, your **term** average should be over 35.
- At the end of the term, a **total** average below 40 will fail. Students who got less than 30 in final exam will also fail.

You can follow the course announcements, exam results and your attendance status on the Ninova system (<http://ninoa.itu.edu.tr/>).