**BLG311E – Formal Languages and Automata**

**2012-2013 SPRING**

| | **CRN: 20966** |
|---|---|
| Instructors: | Asst.Prof.Dr.Tolga Ovatman |
| Office: | 5309 |
| Contact: | ovatman@itu.edu.tr<br>www.ovatman.com |
| Assistant: | Mustafa Ersen<br>Selda Uyanık |

**Textbook:** J.E. Hopcroft, J.D. Ullman, *Introduction to Automata Theory, Languages and Computation – Second Edition*, Addison-Wesley, 2001

| **Week** | **Topic** | **RECITATIONS** |
|---|---|---|
| 14.02 | Finite State Machines - Definitions and Models | |
| 21.02 | Finite State Machines - Algorithmic State Machines | HOMEWORK 1 |
| 28.02 | Finite State Machines - State reduction and state equivalency | |
| 07.03 | Mathematical Foundations of Formal Languages - Inductive definitions, Alphabets and languages | HW2 |
| 14.03 | Mathematical Foundations of Formal Languages - Relations and closures, Languages and Grammars | |
| 21.03 | MIDTERM I | |
| 28.03 | Mathematical Foundations of Formal Languages - Chomsky Hierarchy, Regular Expressions | HW 3 |
| 04.04 | Automata - Deterministic Finite Automata | |
| 11.04 | Automata - Non-Deterministic Finite Automata | HW 4 |
| 18.04 | Automata - NFA/DFA equivalency | |
| 25.04 | Push-down Automata | HW 5 |
| 02.05 | MIDTERM II | |
| 09.05 | Push-down Automata and Context-free Languages | |
| 16.05 | Turing Machines | |

## 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 midterm - term avarage should be over 35.
- At the end of the term, a total average below 40 will fail.

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