

**BLG311E: Formal Languages and Automata**  
**Homework #1**  
**Due Date: 02.10.2014, First Lecture Hour**

**Rules:** Answers must be **hand-written** in a **readable** form

All solution steps must be **clearly** shown

Homework must be submitted as printout in the first hour of the class

For the alphabet  $\Sigma = \{a, b\}$ ,

1) Construct an NFA that accept the set of all strings that have **either** the number of a's odd, **or** the number of b's not a multiple of 3, **or both**.

2) Convert this NFA to an equivalent DFA.