

## Homework 10

**Due: November 17, 2009, beginning of the class**

PLEASE READ THE INSTRUCTIONS/SUGGESTIONS WRITTEN IN THE SYLLABUS!  
ALL PROBLEMS ARE FROM THE 3<sup>rd</sup> EDITION OF THE TEXTBOOK.  
(GHAHRAMANI: FUNDAMENTALS OF PROBABILITY)

- Hand in the following problems:
  - *Page 412-414*: 3, 6, 11, 12, 13
  - *Page 424-425*: 4, 5, 7, 9
- Practice problems (you do not need to hand these in!):
  - *Page 412-414*: 5, 8, 14, 15
  - *Page 424-425*: 1, 3, 6, 8, 10, 23, 24, 25
- Bonus problem:

Cards are drawn one by one (without replacement) from a pack of 52 cards until at least one card of every suit has been drawn. Find the expected number of cards drawn.

DISCLAIMER: It is easy to find the solutions to (some of) these questions. (E.g. the internet, your fellow classmates ...) However, do NOT consult any of these solutions when working on this assignment or you will learn nothing from it and your chance of passing the course will be greatly diminished. If it becomes apparent to the grader that your solution is copied from existing solutions, you will be assigned a grade of zero for lack of originality.

REMINDER: Our second midterm exam will take place on November 19, Thursday (in class). It will cover everything we discussed in class up to Section 10.2. A more detailed description of the topics you are expected to know will be posted on the course web site.