

Instructor: Omer Angel.

Contact: angel@math.ubc.ca (please include “MATH 302” in the subject).

Lectures: MWF. 14:00–15:00, Math annex 1100.

Course webpage: <http://www.math.ubc.ca/~angel/302>

Office hours: Mon. 15:00-16:00, Fri. 10:00-11:00, Math annex 1210, or by appointment.

Course outline:

The course will be based on topics from the first 8 chapters of Rosss text: *A First Course in Probability*, by Sheldon Ross, 8th edition (7th edition should be fine as well), Pearson 2010.

- Some elementary combinatorics. Combinations and permutations (Ch. 1)
- Sample spaces, events, axioms of probability (Ch. 2)
- Conditional probabilities, independence and Bayes Formula (Ch. 3)
- Discrete random variables (Ch. 4) and Continuous random variables (Ch. 5)
- Joint distributions, marginal distributions and conditional distributions (Ch. 6)
- Expectation: sums, covariance, moment generating functions (Ch. 7)
- Limit Theorems: weak law of large numbers, central limit theorem (Ch. 8)

Evaluation: The final mark will be based on homework (15%), two mid-terms (35%) and the final exam (50%).

Homework: Weekly assignments will be given. These are due at the **beginning** of class on the due date, normally each Wed. Assignments handed in by Friday will receive 50% of the mark. No later assignments be accepted. The single lowest assignment will be ignored. Due dates for assignments: Sep. 12,19,26; Oct. 3,17,24,31; Nov. 7,14,21,28. Part of the homework will be done online on the UBC WebWork system.

Mid-terms: Mid-terms will take place during the regularly scheduled class on **Friday, October 5** and **Friday, November 9**.

Final Examination: will take place in the December examination period (5-19). Please do not make travel plans before the exam schedule is announced.

Missed mid-terms and assignments will normally receive a zero grade. Exceptions may be granted in two cases: **prior consent** of the instructor or a **medical emergency**. In the latter case, the instructor must be notified as soon as possible (preferably before the test), and presented with a doctor’s note immediately upon the student’s return to UBC. When an exception is granted for a missed test, there is no make-up test, and the final exam mark will be used.