

Instructor: Omer Angel.

Contact: angel@math.ubc.ca

Lectures: Mon Wed Fri 14:00–15:00, Location TBA.

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

Office hours: Mon 15:00-16:00, Fri. 11:00-12:00, Math annex 1210, or by appointment.

Discussion board: We will use a piazza discussion board this term. You can ask questions regarding the course there. It is encouraged to answer other students' questions there. Significant participation of this type may justify extra credit. Do not share solutions to assignments (on piazza or elsewhere) before the due date.

Course outline:

The course will be based on “Introduction to Probability” by Anderson, Seppäläinen, and Valkó. This is as yet unpublished, and will be provided to registered students online. The (overpriced) book “*A First Course in Probability*”, by Sheldon Ross was used in the past, and is a good alternative reference for course material. Topics include:

1. Randomness sample spaces, events, axioms of probability,
2. Conditional probabilities, independence and Bayes' formula,
3. Discrete and continuous random variables,
4. Expectation and variance
5. Joint distributions, marginal distributions and conditional distributions,
6. Expectation of sums, covariance, moment generating functions,
7. Limit Theorems: the Law of Large Numbers and Central Limit Theorem.

Evaluation: The final mark will be based on homework (15%), mid-term (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 for credit. The single lowest assignment grade will be ignored. Due dates for assignments: Sep. 14,21,28; Oct. 5,12,19,26; Nov. 2,9,16,23,30.

Mid-terms: Mid-terms will take place during class on **Fri., October 5** and **Fri. November 4**.

Final Examination: will take place in the December examination period. 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 by **prior consent** from me, or for a documented **medical emergency**. In the latter case, I 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.