

MATH 3160 - Probability - Fall 2016

Syllabus

- **Instructor:** Patricia Alonso Ruiz (office MONT405), patricia.alonso-ruiz@uconn.edu.
- **Lecture times and locations:** Section 006, TuTh, 14:00–15:15 in MONT319; Section 008, MWF 12:20–13:10 in MONT110.
- **Textbook:** *A First Course in Probability*, 9th Ed., by Sheldon Ross. You are also welcome to use the 7th or 8th edition of the book. Note, however, that the lectures will NOT follow the text verbatim.
- **Topics and approx. class plan:** We will cover almost all of Chapter 1 through Chapter 8 of the textbook. Combinatorial analysis (1 week); Kolmogorov's axioms of probability and combinatorial probability (1.5 week); conditional probability and Bayes' formula (2 weeks); discrete random variables (2.5 weeks); continuous random variables (2 weeks); joint distributions, independence, sums of independent random variables, order statistics and transformations (2 weeks); conditional distribution, conditional expectation, covariance, correlation, moment generating function (1.5 week); limit theorems (1 week).
- **Grades:** quizzes, 10%; 2 midterm exams, 25% each; final exam, 40%.
- **Office hours:** W 14:00–16:00 and Th 15:30–16:30. Do not hesitate to e-mail me to set up an appointment.

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- **Prerequisites:** Calculus, up to and including series, limits, partial differentiation, and multiple integration. Since this Fall'16, MATH 2110Q, 2130Q or 2143Q are strictly enforced as a prerequisite for MATH 3160.
 - **Exams:** There will be two in-class midterms (tentative dates, Section 006, Th 10/06 and Th 11/17; Section 008, W 10/05 and W 11/16) and a final exam. Please let me know if you anticipate any conflict with either midterm date by the end of the 2nd week of classes. Otherwise, the dates will become official. **No make-up exams will be offered** unless under the most extreme circumstances, such as a serious illness or family emergency. If you anticipate such circumstances, please notify me asap, and well in advance of the scheduled exam date.

The **final exam date** will be announced by the registrar a few weeks into the semester. You **MUST** contact the **Dean of Students Office (DOS)** regarding any conflict with the scheduled final exam times by the end of the third-from-last week of the semester. No exceptions will be done! Once the DOS grants permission to reschedule your final exam, they will notify me, and I will confirm an alternate arrangement with you.

- **Quizzes:** They will be given on **Thursdays** (Section 006), **Wednesdays** (Section 008), except during the 1st week and the two midterm exam weeks. They will start at 14:00 sharp (Section 006), 12:20 sharp (Section 008), take 10-15 minutes, and cover the assignment posted

the previous week. **No make-up quizzes** will be given under any circumstance. In the end, your two lowest quiz scores will be dropped.

- **Homework:** Assignments will be posted every **Thursday** (Section 006) resp. **Wednesday** (Section 008). Each assignment consists of around 10 problems drawn from materials covered in the preceding week. All assigned problems are subject to appear in the quizzes and/or the exams.
- **Exam guidelines:** You are allowed to bring n pages of handwritten notes (both sides of an 8 x 11 paper) to the n th exam held. **These and your writing utensils are the only items allowed on the exam. No calculator is allowed;** the exam problems will not involve tedious calculations.
- **Homework guidelines:** Homework assignments form an integral component of the course. You should make every effort to solve the assigned problems using the concepts learned from the lectures and readings. Remember that if you don't do the homework, you cannot do well on the exams.

If you encounter difficulties or have questions concerning HW, there are many options to solve them: ask me (in class or during office hours), post your question on HuskyCT or ask your mates. Collaboration on doing HW is highly encouraged!

- **Course web site:** A HuskyCT course site will be operational, where all announcements, assignments and discussions can be found. Please, check it regularly to keep updated with what is going on in class.

If you want to ask a HW/lecture question, post your question on HuskyCT. By doing so, everyone will be able to see it and respond to it, and the whole class benefits. **I will not respond to HW problems via e-mail.**

If you would like to ask an individual question regarding course attendance, exam rescheduling, or other private matters, you can send me an e-mail.

- **Supplementary resources:** [MATH 3160 lecture notes by Prof. Richard Bass](#) on Ross' text. This is an excellent set of notes which you can use to review the materials.
- **Further important dates:** M 9/12, add/drop via Student Admin closes (without a "W"); M 10/31, Last day to drop a course (with a "W").
- **Course preparation:** To keep up with the course, you will need to spend 2+ hours studying on your own for each class meeting. Work on the corresponding homework problems: this is especially important in the last 2/3 of the course, where the current material builds upon the previous material.
- **The Student Code:** Everyone is expected to read and abide by the [UConn Student Code](#), especially [Appendix A: Academic Integrity in Undergraduate Education and Research](#) and the associated [FAQ](#). Any academic misconduct will be dealt with under the policy stated there.