

## MTH 361: Introduction to Probability

**Instructor:** Patrick De Leenheer, [deleenhp@math.oregonstate.edu](mailto:deleenhp@math.oregonstate.edu) . Kidder Hall 296.

**Time & Place:** MWF 3:00-3:50pm in WNGR 287.

**Office hours:** Mon & Wed 10:00am-11:15, or by appointment.

**Catalog Description:** Probability problem solving using concepts developed in calculus. Topics include probability models, discrete and continuous random variables, expectation and variance, the law of large numbers, and the central limit theorem.

**Enforced Prerequisites:** All courses used to satisfy MTH prerequisites must be completed with C- or better. MTH 253 [C-] or MTH 306 [C-] or MTH 306H [C-]

**Required text:** Elementary Probability for Applications, by Rick Durrett. Cambridge University Press.

**Additional texts** (not required, but freely available online): Introduction to Probability, by Grinstead and Snell:

<http://www.math.dartmouth.edu/~prob/prob/prob.pdf>

(also not required): A first course in Probability, by Sheldon Ross, Prentice Hall.

**Grading:** Grades will be determined on the basis of scores of weekly homework assignments (totaling 25% of the grade), **1 in-class midterm on Monday Oct 24 (35%)** and **1 comprehensive final exam on Thursday Dec 8 from 2pm to 3:50pm, in WNGR 287 (40%)**. Homework assignments (only some of which will be graded) will be given on Friday, and are due the following Monday in class. Late homework is not permitted, but the lowest homework score will be dropped. Each homework problem will receive a score of 0 (incorrect, or seriously flawed), 1 (somewhat correct) or 2 (correct). Students are encouraged to attempt many of the problems in the text and the additional texts, going beyond the homework assignments. Learning probability -or any other mathematical discipline for that matter- requires dedication to practicing. This is not a spectator sport.

**Learning Outcomes:** Students should expect to become familiar with the basic notions in probability (events, independence, distributions and limit theorems), and to recognize and apply these notions in various practical settings involving phenomena where the outcomes of events are no longer deterministic.

**Students With Disabilities:** Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

**Student Conduct:** All students are expected to obey to OSUs Student Conduct Code, see <http://oregonstate.edu/studentconduct/>

See also <http://oregonstate.edu/studentconduct/offenses>

for information on the consequences of Academic or Scholarly Dishonesty.

**Course drop/add:** Information is at <http://oregonstate.edu/registrar/>