

**General features:**

- The book is *A first course in probability* by Sheldon Ross.
- 12 homeworks (usually due on Thursdays, but sometimes on Tuesdays) 15% total.
- 12 quizzes (usually on Thursdays): 15% total.
- 2 midterm exams (WEDNESDAYS, OCTOBER 4 AND NOVEMBER 15): 15% each
- The Project (due FRIDAY, DECEMBER 1): 10%.
- 1 comprehensive final exam (MONDAY, DECEMBER 12): 30%.

AUGUST 21. Counting, permutations, combinations.

AUGUST 22. Counting, permutations, combinations.

AUGUST 23. The rest of combinatorics.

AUGUST 24. The rest of combinatorics.

AUGUST 25. Axioms of probability.

AUGUST 28. Computing probability.

AUGUST 29. Computing probability.

AUGUST 30. Conditioning, independence, and the Bayes formula.

**August 31.** Computing probability. HW1 is due. QUIZ 1.

SEPTEMBER 1. Tables and trees.

**September 4.** *Labor Day, no class.*

SEPTEMBER 5. Computing probability.

SEPTEMBER 6. Examples.

**September 7.** Computing probability. HW2 is due. QUIZ 2.

SEPTEMBER 8. Examples. **Last chance to drop without a “W” and with refund.**

SEPTEMBER 11. Random variables.

SEPTEMBER 12. Random variables.

SEPTEMBER 13. Expectation and variance.

**September 14.** Random variables. HW3 is due. QUIZ 3.

SEPTEMBER 15. Binomial and Poisson distributions.

SEPTEMBER 18. Discrete distributions.

SEPTEMBER 19. Examples.

SEPTEMBER 20. Examples.

**September 20.** Examples. HW4 is due. QUIZ 4.

SEPTEMBER 22. (Absolutely) continuous random variables.

SEPTEMBER 25. Uniform distribution.

SEPTEMBER 26. Continuous random variables.

SEPTEMBER 27. Normal (Gaussian) and exponential distributions.

**September 28.** Examples. HW5 is due. QUIZ 5.

SEPTEMBER 29. All other distributions and change of variables.

OCTOBER 2. Midterm review.

**October 3.** Midterm review. HW6 is due.

**October 4.** Midterm Exam 1. Covers what we did so far.

**October 5.** Discuss the exam and the project. QUIZ 6.

OCTOBER 6. Discuss the exam and the computer project.

**Last chance to drop without a ‘W’, BUT WITH NO refund.**

OCTOBER 9. Joint distributions and independence.  
**October 10.** Joint probability distributions. HW7 is due.  
OCTOBER 11. Sums of independent random variables.  
October 12, 13. *Fall break, no classes*

OCTOBER 16. Joint distributions and conditioning.  
OCTOBER 17. Examples.  
OCTOBER 18. Change of variables.  
**October 19.** Examples. HW8 is due. QUIZ 7.  
OCTOBER 20. Method of indicator functions.

OCTOBER 23. Examples.  
OCTOBER 24. Examples.  
OCTOBER 25. Covariance, correlation, and conditional expectation.  
**October 26.** Examples. HW9 is due. QUIZ 8.  
OCTOBER 27. Covariance, correlation, and conditional expectation.

OCTOBER 30. Covariance, correlation, and conditional expectation.  
OCTOBER 31. Covariance, correlation, and conditional expectation.  
NOVEMBER 1. Moment generating function.  
**November 2.** Examples. HW10 is due. QUIZ 9.  
NOVEMBER 3. Inequalities, LLN, and CLT.

NOVEMBER 6. Inequalities, LLN, and CLT.  
NOVEMBER 7. Examples.  
NOVEMBER 8. Poisson process.  
**November 9.** Examples. HW11 is due. QUIZ 10.  
NOVEMBER 10. *Veterans Day, no class.* Last chance to drop with a "W".

NOVEMBER 13. Midterm review.  
**November 14.** Midterm review. HW12 is due.  
**November 15.** Midterm Exam 2. Covers what we did after Midterm Exam 1.  
**November 16.** Discuss the exam and the project. QUIZ 11.  
NOVEMBER 17. Markov chains.

NOVEMBER 20. Some fun topics.  
NOVEMBER 21. Some fun topics.  
November 22, 23, 24. *Thanksgiving break, no classes.*

NOVEMBER 27. Simulating randomness.  
NOVEMBER 28. Final review.  
NOVEMBER 29. Some fun topics.  
**November 30.** Final review. QUIZ 12.  
DECEMBER 1. Final review. The Computer Project is due.

**Monday, December 11.** Final Exam, 11am–1 pm.  
Covers everything we studied. Contributes 30 percent to the final grade.