

UNIVERSITY OF SOUTHERN CALIFORNIA
Daniel J. Epstein Department of Industrial and Systems Engineering
ISE 220: Probability Concepts in Engineering
Fall 2013: Syllabus

Personnel	Instructor: Arpi Mardirossian Office Hours: MW 10:00 AM - 11:00 AM in Tutor Hall Cafe Email: arpi.mardirossian@gmail.com Skype: arpi.mardirossian Teaching Assistant: Wentao Zhang Office Hours: W 4:00 PM - 5:00 PM, F 9:00 AM - 11:00 AM in GER 241 Email: wentao@usc.edu
Class Details	MW 11:00 AM - 11:50 AM in KAP 148
Course Text	"First Course in Probability" by Sheldon Ross, 8th Edition
Prerequisite	MATH 226
Course Overview	This course introduces the theory of probability and presents methods for problem solving using probability in a diverse set of applications including engineering. Topics covered in this course include: combinatorial analysis, axioms of probability, conditional probability, random variables, expectation, and limit theorems.
Grading Method	Homework - 20% Project - 20% Midterm Exam - 30% Final Exam - 30% All homework will be graded by the teaching assistant. No late assignments will be accepted. All homework will be due in class. Please turn in hard copies of your homework.. The project will require you to select a team, a project topic and to present your findings in class. The professor will grade your project. Both exams will be closed book, but you will be allowed to bring

one 8.5x11 cheat sheet to each. The professor will grade the exams.

Schedule

Date	Topic
08/26/2013	Introduction & Overview
08/28/2013	Combinatorial Analysis (1.1 - 1.3)
08/30/2013	Combinatorial Analysis (1.4)
09/02/2013	No Class - Labor Day
09/04/2013	Combinatorial Analysis (1.5)
09/06/2013	Axioms of Probability (2.1 - 2.3)
09/09/2013	Axioms of Probability (2.4 - 2.5)
09/11/2013	Conditional Probability (3.1 - 3.2)
09/13/2013	Conditional Probability (3.3)
09/16/2013	Independence (3.4 - 3.5)
09/18/2013	Random Variables (4.1 - 4.3)
09/20/2013	Random Variables (4.4 - 4.5)
09/23/2013	Random Variables (4.6 - 4.7)
09/25/2013	Random Variables (4.8)
09/27/2013	Random Variables (4.9 - 4.10)
09/30/2013	Midterm Review
10/02/2013	Midterm Review
10/04/2013	Midterm Exam
10/07/2013	Midterm Solutions
10/09/2013	Continuous Random Variables (5.1 - 5.3)
10/11/2013	Continuous Random Variables (5.4 - 5.5)
10/14/2013	Continuous Random Variables (5.6 - 5.7)
10/16/2013	No Class
10/18/2013	Jointly Distributed Random Variables (6.1 - 6.2)

10/21/2013	Jointly Distributed Random Variables (6.3)
10/23/2013	Jointly Distributed Random Variables (6.4 - 6.5)
10/25/2013	Jointly Distributed Random Variables (6.6 - 6.7)
10/28/2013	Properties of Expectation (7.1 - 7.2)
10/30/2013	Properties of Expectation (7.3 - 7.4)
11/01/2013	No Class
11/04/2013	Properties of Expectation (7.5 - 7.6)
11/06/2013	Properties of Expectation (7.7 - 7.9)
11/08/2013	Limit Theorems (8.1 - 8.3)
11/11/2013	Limit Theorems (8.4 - 8.6)
11/13/2013	Probability Applications
11/15/2013	Probability Applications
11/18/2013	Final Review
11/20/2013	Final Review
11/22/2013	Final Exam
11/25/2013	Final Exam Solutions
11/27/2013	No Class - Thanksgiving
11/29/2013	No Class - Thanksgiving
12/02/2013	Project Preparation
12/04/2013	Project Preparation
12/06/2013	Project Preparation
12/11/2013	Project Presentations

Academic Integrity

Each student is expected to: be responsible for his/her own learning; to solve and write up his/her own solutions; and, to credit all sources of material and collaborators to the formulating of a solution. Plagiarism, the use and passing off of the ideas or work of another as one's own, will be severely punished; see USC's Academic Integrity Policy:

You are expected to solve and write up your own homework, or you will be penalized for cheating. But you are encouraged to study and to work on assignments and homework together. This includes discussing solution strategies to be used on individual assignments. If you do study or work together on homework, be sure to credit your team of collaborators. However, all work submitted for the class is to be done individually.

All USC students are responsible for reading and following the Student Conduct Code. The USC Student Conduct Code prohibits plagiarism. Some examples of what is not allowed by the conduct code: copying all or part of someone else's work (by hand or by looking at others' files, either secretly or if shown), and submitting it as your own; giving another student in the class a copy of your assignment solution; consulting with another student during an exam. If you have questions about what is allowed, please discuss it with the instructor.

Students who violate University standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the University. Since dishonesty in any form harms the individual, other students, and the University, policies on academic integrity will be strictly enforced. We expect you to familiarize yourself with the Academic Integrity guidelines found in the current SCampus: web-app.usc.edu/scampus. Violations of the Student Conduct Code will be filed with the Office of Student Conduct, and appropriate sanctions will be given.

Disability Policy Statement

Any Student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the professor (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.