

STA 4321: Introduction To Probability
Section 1192
MWF 3:00 - 3:50 AM, Room: FAB 0103

Instructor: Antonio Linero, Griffin-Floyd 209.
Office Hours: 7th period MWF or by appointment.
Contact: theodds@stat.ufl.edu

Teaching Assistant: TBA
Office Hours: TBA
Contact: TBA

Prerequisites: MAC 2313 or an equivalent course in multivariate calculus.

Course Website: Course website is available through e-Learning: <https://lss.at.ufl.edu/>

Textbook: Lecture notes will be put online and, in principle, should contain all the required material. Required homework will not require a textbook.

The recommended textbook is *Introduction to Probability and Its Applications, Third Edition* by Scheaffer and Young. Recommended reading and optional homework will be assigned from this book. *While this textbook is not strictly required, it is strongly recommended.*

Course Objectives: The course introduces probability to students who have passed 3 semesters of undergraduate level calculus. The material learned here will be needed later for understanding the classical statistical theory that is taught in courses such as STA4322/5328, and will provide some background for other probability-dependent subject matter.

Additionally, the course will cover most of the material required for the first actuarial science exam (Exam 1/P).

Topics Covered: Axiomatic probability theory. Independence of events. Bayes theorem and the law of total probability. Discrete and continuous random variables. Common types of discrete and continuous distributions. Expected value and variance of random variables. Moment generating functions. Transformations of random variables. Joint, conditional, and marginal distributions of random vectors.

Homework: Required and optional homework will be assigned each week. *Neither* will be collected, however the required homework will bear a *high* resemblance to the material that will appear on quizzes and exams.

Quizzes: Weekly quizzes will be administered each Friday unless otherwise noted, and will cover material similar to the required homework assigned each week. Quiz scores will account for 30% of the course grade. At the end of the semester, the lowest quiz grade will be dropped.

Exams: There will be three exams accounting for 70% of the course grade, which will take place during the lecture hour. The material covered and general exam policies will be discussed in class. The **tentative** dates are

- Exam 1** Friday, February 8th
- Exam 2** Friday, March 9th
- Exam 3** Wednesday, April 24th

Grading: Quizzes will account for 30% of the grade and exams will account for 70% of the grade. Each student's lowest quiz grade will be dropped. Grade cutoffs will be established at the end of the course, but will not be stricter than the following cutoffs. $\geq 90\%$: A; $\geq 87\%$: B+; $\geq 80\%$: B; $\geq 77\%$: C+; $\geq 70\%$: C; $\geq 67\%$: D+; $\geq 60\%$: D; $< 60\%$: F.

Attendance Policy: Attendance is recommended but not strictly required, with the exception of days on which there is a quiz. Lecture notes and optional readings will be released online to accommodate those who do not attend.

Missing Quizzes or Exams: One quiz will be dropped at the end of the semester; the first missed quiz will count as a dropped quiz. Other quizzes or exams that are missed must either be OK'd by the instructor in advance or be the result of unforeseeable circumstances, accompanied by proof or otherwise certified as acceptable cause for absence by the university. If no suitable reason for missing an exam or quiz is given, the student will receive no credit for the missed assignment.

Students with Disabilities: Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation.

Academic Honesty: We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

Important Dates:

- Drop-Add Deadline January 11
- Martin Luther King Day January 21
- Spring Break March 2-9
- Drop Deadline April 12