Math 371 – Probability

Term: Fall 2016   Professor: Erich Friedman

About the course: We will meet every MWF at 11:00 in Elizabeth 313. This course will essentially cover the first 11 chapters of the text, *Fundamentals of Probability* by Ghahramani. This course is an introduction to the mathematics of chance, including combinatorial probability, conditional probability, probability densities and distributions, discrete and continuous random variables, joint probability, moment generating functions, and limit theorems. This course is designed to cover the material on the first actuarial exam. Probability has been an active field of mathematics for over 300 years. Some students find this course difficult, because it can be non-intuitive, and because there is often more than one way to do a problem. But you will find it extremely valuable to learn about the mathematics of chance, both for your daily life, and for further study in modeling, operations research or statistics.

About me: My web page can be found at at http://www2.stetson.edu/∼efriedma/, and my office is E214–2. My e-mail address is efriedma@stetson.edu, and my phone extension is x7552. My office hours this semester are: MWF 10:00–11:00 and W 12:00–1:00. I am always in my office during these times. If you cannot make my regularly scheduled hours, let me know and we can set up another time to talk. Please come by if you need help, or if you just want to chat. You will soon see that my lecture style is informal. I will be calling you by your first names (or a nickname if you prefer), so please call me Erich.

About your math background: You will need a working knowledge of Calculus I and II, and there are parts of Calculus III and Logic and Proof that will be very useful. In particular, we first use factorials in week 1, set theory and proofs in week 3, Taylor series and geometric series in week 5, continuity, differentiation and integration in week 8, partial derivatives and multiple integrals in week 10, and limits in week 13.

About your responsibility as a student: You should read the book. You should do the homework assigned. You should ask questions in class about things you don't understand or problems you couldn't do. You should come to my office hours (or make an appointment to see me at another time) if you need additional help. You should inform me beforehand if you are unable to take a quiz or test at the scheduled time.

About Accommodations: If you anticipate barriers related to the format or requirements of a course, you should meet with the course instructor to discuss ways to ensure full participation. If disability-related accommodations are necessary, you should register with the Academic Success Center (386-822-7127; stetson.edu/asc) and notify the course instructor of your eligibility for reasonable accommodations. You, the course instructor and the Academic Success Center will plan how best to coordinate accommodations.

About cell phones: You should be respectful and turn yours off in class. If one goes off in class, it's mine for the rest of the day.

About the honor code: Stetson has an honor code. You are not only expected to do your own work, but to tell me if another student is not. The punishment for cheating is a zero on the quiz or test involved.

About Quantitative Reasoning: In order to assure that Stetson University is meeting its goals in providing an excellent General Education, the College has established specific General Education Learning Outcomes for all courses meeting a particular area requirement in the General Education curriculum. To monitor how well students are meeting those outcomes, instructors of those courses regularly submit work to the committees assessing each outcome. While the outcomes of these assessments are primarily for our internal use in monitoring and enhancing our curriculum, we may occasionally report the results of these assessments in published research or academic conferences. All reports will include only aggregate data and will not include information that could identify the student or the instructor. While the use of this information within the institution is part of normal educational practice, you may choose not to allow data derived from your own work to be used for published reports or presentations by signing an "opt out" form in the Registrars office.

About your grade:

- **Homework** will not be collected, but I will answer questions in class as time permits. These problems are an indication of what the test problems will look like. I encourage you to work together on the homework problems. You should do as much or as little homework as you need. The leading causes of failing this course are not doing enough homework, and not remembering things from previous courses.

- **3 Quizzes and 3 Tests** will be given on the dates announced on the syllabus. Please check your schedule now to see that there are no conflicts. If you miss a quiz or test without telling me beforehand, the penalty is 10% per day, no exceptions. You will be expected to show your work and justify your answers. You should bring a calculator to the quizzes and tests. Each quiz is worth 50 points, and covers the last few sections of material. Each test will cover all material since the last test. Each test is worth 100 points, and will consist of 80 points in-class and 20 points take-home due the next class period. No cooperation on the take-home portion is allowed.

- **Pop Quizzes**, worth 10 points and taking about 10 minutes, are something I reserve the right to use as necessary if attendance is low or the class is not keeping up with the material.

- **The Final Exam** is comprehensive and is worth 200 points. There are 650 points total. There is no extra credit available. The grading scale is the usual 90/80/70/60 scale.