Math 151, Spring 2011
Probability – ML 134
Jo Hardin

**Instructor:**
Jo Hardin
Millikan 226D
phone: 607-8717
e-mail: jo.hardin@pomona.edu
www: http://pages.pomona.edu/~jsh04747
office hours: M 1:30-4p, W 9:30-11:30, or by appointment

**Mentor:**
Sam Antill
Millikan $2^{nd}$ floor
e-mail: sba02009@pomona.edu
office hours: (tentative!!) Sundays & Wednesdays 8:30-10:30pm

**Text:** *Probability and Statistics*, by DeGroot and Schervish ($3^{rd}$ or $4^{th}$ ed.)

**Prerequisites:** The prerequisite for this class is completion of the sequence of calculus and linear algebra. We rely heavily on these prerequisites, and students with no background in multivariable calculus will find themselves trying to catch up throughout the semester.

**Description:** This is an introduction to probability for students with a calculus background and no prerequisite of probability or statistics. Though the course will be focused on the theoretical aspects of the material, there will be some real world examples in class and in the homework assignments. The idea is to have a strong mathematical understanding of the concepts while also understanding how the concepts are used in the real world.

**Homework** Homework will be assigned from the text on a weekly basis. No late homework is accepted, but one homework grade will be dropped.

**Participation:** The participation grade is based on willingness to participate in class discussions and other activities. We will have regular warm-up problems that will be graded and counted toward your participation grade.

No computers or cell phones in class. If you take notes on a tablet PC, please use it *only* for taking notes. I know that it is tempting to text, check Facebook, email, etc., but doing so creates an environment of inattention in the classroom. And it is very clear that it interferes with learning (for everyone).

**Sakai:** I will be posting HW solutions and possibly other things to our course Sakai site. However, the daily schedule and assignments will be posted on my homepage in the math department. You are responsible for making sure you know all assignment and exam dates.

**Software:** We will be using the R software throughout the course. The software is available on most computer labs on campus. It is freely available and can be installed on your own machine (`http://www.r-project.org/`). We will also be using a version of R accessible on the web at the URL `http://topaz.rstudio.org`. (You need to provide me your gmail address to access Rstudio.) There are a few documentation files on my website. Additionally, your first task for this class will be to go through the R tutorial I have written.

**Calculators:** You will need to bring a scientific calculator to each test (and having them in class is nice, also). You will not be allowed to share a calculator with another student during exams. You do not need a graphing calculator. Any calculator that takes square roots, logs, and exponents will suffice.

**Exams:** We will have 4 short quizes and 2 midterm exams. The quizzes will be in class and will take less than the entire class period. The midterms will be take-home (assigned Thursday, due Tuesday). Quizzes will be open book/notes but timed. Midterms will be open book/notes but untimed and closed people. The final will also be take-home, and will be due on the day of our scheduled exam, Friday, May 13 noon.

| | |
|---|---|
| Quiz1: | Thursday, Feb 3 |
| Quiz2: | Tuesday, March 8 |
| Quiz3: | Thursday, March 24 |
| MT1: | Tuesday, March 1 |
| MT2: | Tuesday, April 12 |
| Final: | Friday, May 13, noon |

**Grading:**

| | |
|---|---|
| 25% | Homework |
| 15% | Quizzes (5% each) |
| 32% | Two midterm exams (16% each) |
| 20% | Final Exam (Cumulative) |
| 8% | Class Participation |

(Grades assigned on the usual scale: 90-100 = A; 80-90 = B; etc...)

SUCCESS: Success in this class will come with keeping up with the material. Please feel free to stop by, email, or call if you have any questions about or difficulty with the material, the homework, or the course. Come see me as soon as possible if you find yourself struggling. The material will build on itself, so it will be much easier to catch up if the concepts get clarified earlier rather than later. If you have a documented disability and wish to discuss academic accommodations, please contact me as soon as possible.

ACADEMIC HONESTY: Pomona College is an academic community, all of whose members are expected to abide by ethical standards both in their conduct and in their exercise of responsibilities toward other members of the community. The college expects students to understand and adhere to basic standards of honesty and academic integrity. These standards include, but are not limited to, the following:

1. In projects and assignments prepared independently, students never represent the ideas or the language of others as their own.
2. Students do not destroy or alter either the work of other students or the educational resources and materials of the College.
3. Students neither give nor receive assistance in examinations.
4. Students do not take unfair advantage of fellow students by representing work completed for one course as original work for another or by deliberately disregarding course rules and regulations.
5. In laboratory or research projects involving the collection of data, students accurately report data observed and do not alter these data for any reason.