

Math 125 – Intro to Math & Stat Modeling

Term: Spring 2012

Professor: Erich Friedman

About the course: We will meet every MWF at 11:00 or 1:30 in Elizabeth 209. This course will cover material from every chapter except chapter 9 of the text *Statistics: Informed Decisions Using Data* by Sullivan. In this course, we will study descriptive statistics of one and two dimensional data, curve fitting and regression, basic probability, the binomial and normal distributions and the connection between them, and hypothesis tests for proportions, means, and correlations. Your grade will be determined by quizzes, tests, a final exam, and a semester-long statistical project, involving two papers and two short presentations.

About me: My web page can be found at <http://www.stetson.edu/~efriedma/>, and my e-mail address is efriedma@stetson.edu. My office is Elizabeth 214-2, and my phone extension is x7552. My office hours this semester are: MWF 10:00 – 11:00 and T 10:00-12:00. 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 you: Anyone with a need or interest in statistics may take this course. Most of the students in this course are biology, health science, environmental science, psychology, or sociology majors who need to understand statistics to analyze their senior research data. There are easier math courses for those who only need to satisfy their “Q” requirement. You will need to remember some basic algebra. Please be respectful of both me and your classmates. This means coming to class on time and not socializing in class.

About your responsibility as a student: You should plan on spending 6-10 hours per week outside of class on this course. I know you didn’t have to work that hard in high school, but this isn’t high school. You should read the book. You should do the homework assigned. You should inform me beforehand if you are unable to take a quiz or test at the scheduled time.

If you don’t ask any questions, either in class or in office hours, you are essentially paying \$100 per class to have me explain what you could read for yourself in the book. To get your money’s worth, you should take advantage of my expertise. Ask questions in class about things you don’t understand or problems you couldn’t do. Come to my office hours (or make an appointment for another time if they are inconvenient for you) if you need additional help.

About the math department: I am usually available to answer your questions, in and out of class, but the math department offers additional ways to get help. There is a math clinic which runs MTWTh 2:30 – 4:30 and SuMTWTh 7:00 – 10:00 in our classroom. The math secretary in Elizabeth 211 also has a list of paid tutors available at other times. Please seek help as soon as you fall behind.

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 an F in the course.

About cell phones: You are not allowed to use them for any reason during quizzes and tests. It is polite to keep yours turned off so it does not disturb class. If one goes off in class, it’s mine for the rest of the day.

About calculators: Use of a graphing calculator is required for this course. You will need the calculator for quizzes and tests, and you are not allowed to share. I will be using a TI-84 in class, but you can use any calculator as long as it does means, standard deviations, Z and t probabilities, and can graph data.

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 such reports will include aggregate (not individual) 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:

- **Attendance** is not taken, so is not part of your grade.
- **Homework** is assigned daily, but will not be collected or graded. Only odd numbered homework problems are assigned on the syllabus (blue sheet), and the answers are in the back of the book so you can check your work. I will answer some homework questions at the beginning of each class as time permits. If you want to be sure I have time to answer your question, e-mail me or come see me.

The first half of the homework helps you practice basic skills, but the quizzes and tests will be similar to the second half of each homework assignment. I encourage you to work together on the homework problems. If you are getting less than 2/3 of the homework correct, the same is likely to happen on quizzes and tests.

- **Quizzes** will be given during the last 35 minutes of 5 different classes, as seen on the syllabus (blue sheet). These will be one page long and will cover recent material. The quizzes are each worth 50 points.
- **Tests** will be given on the 3 dates shown on the syllabus (blue sheet). You will be expected to show your work and justify your answers. The tests are each 50 minutes long and worth 100 points. Missing a quiz or test without prior authorization incurs a 10% penalty per day, no exceptions.
- **A Statistical Project** is expected so you can put to use the statistics you have learned. In late February, you will present a preliminary talk (5 minutes long) based on descriptive statistics and/or mathematical modeling, and hand in a midterm paper (5-7 pages) In early May, you will present the full project (10 minutes long), including normality and hypothesis tests, and hand in a final paper (10-15 pages). The talks will be given outside class time in our classroom. More details, deadlines, and expectations will be handed out as the class progresses. The midterm and final projects together count for 200 points. (purple sheets).
- **The Final Exam** is comprehensive and is worth 250 points. There are 1000 points total. The grading scale is the standard 90/80/70/60. There is no extra credit available.