

Syllabus: days of the year and simple linear regression assignment



When you purchase Papilla, you will have an e-version of the SAW text. You may also purchase a hard copy from the site if you would like? optional.

Required Materials: Basic financial or statistical calculator. You should ALWAYS bring your calculator to class! We have found that the Texas Instruments ABA' Plus is useful, and is often used in other classes. We will provide basic instructions in the use of this calculator in class (and only this calculator). To insure fairness for all students, calculators with functionality beyond the ABA' Plus, will NOT be permitted for use on exams.

Graphing calculators therefore will NOT be permitted during exams. Course Objective: Statistics is the manner by which we extract information from data. That's it, nothing more! And yet, by the end of this course you will have spent at least two full semesters learning how to best accomplish this. A famous statistician once said: " without data, we are Just another person with an opinion". Obtaining data, and analyzing it properly, can vastly enhance the influence you have in your professional life and community, as well as allow you to make better decisions in both your personal and professional lives.

Our own real-world experience has taught us that statistics may be the single most useful tool one can learn as a student, irrespective of your major. As you will find, statistical analysis can be applied to nearly every field of human endeavor. We have put together a course that we hope will make learning this important material as successful and enjoyable as possible. In designing the specifics of the course, we have laid out four key objectives that we hope to accomplish before the semester ends. These four objectives

have guided all our decisions in terms of course structure, content and administration.

At the end of this course, students should:

1. Understand the relevance of statistics in their future course-work and professions
2. Be trained to identify the proper statistical technique to apply to a problem
3. Be adept at finding the answerer to statistical queries using excel
4. Be able to properly interpret the results of their analysis.

Course Content: Students must have completed a course on probability and statistical analysis before becoming eligible to take Economics 203. The best course to meet this requirement is Economics 202 at the University of Illinois.

Inferential Statistical Analysis is the common thread tying the topics of Economics 203 together. In this course we briefly review single population cases of hypothesis testing and confidence interval formation before extending this analysis to two population cases. We emphasize mean, variance and proportion as the parameters of interest. We also cover single-factor Analysis of Variance. The most significant portion of the course is regression analysis. We cover simple and multiple regression, consider assumption violations and how to handle them as well as qualitative variables, transformations, curvilinear relationships and model building.

The course ends with time series analysis. Course Grade: Mid-term Exam I
 Mid-term Exam II Final Exam Homework Project I 25% 2. 5% 2 Project II Lab
 Quiz #1 Lab #2 5. 0% 3 orange scale: I use scale uses to assign letter grades
 In ten course will be established by the instructor at the end of the semester. A +1- scale will be used. The cut-offs for +/will also be established

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by the instructor at the end of the semester. Once the scale is assigned by the instructor at the end of the course, no exceptions will be made. We do not round grades up.

Exams: There will be three exams (two midterms and a final) given during the semester. Each mid-term will only cover the material since the last exam. The final exam will be comprehensive. Basic calculators will be permitted, and you will be provided with a formula sheet identical to the one at the back of your course-packet for use during the exams. Students are required to have their University of Illinois Student ID with them to take their exam. Students who do not have their ID with them for the exam may not be allowed to take the exam. This policy is necessary for us to insure the integrity of the exams.

We only offer conflict exams if a student qualifies for such an accommodation under university guidelines. The university policy is stated in the Student Code. If a student is unable to attend the conflict exam, then the weight of the missed exam will be added to the weight of the final exam at the end of the semester. If you believe you are eligible for a conflict exam, you must notify your TA in writing during the first week of class. If you do not notify your TA in a timely fashion, you may not be eligible for the conflict.

Homework: Statistics can only be learned one way—doing a lot of problems.

As a result, homework represents an important part of this course. You will be assigned homework after nearly every lecture. Each homework is to be turned in electronically using Papilla. Homework is due no later than 3:00 p.m., the Monday morning of the week following the lecture. Late

homework is not accepted. If you are having trouble with your homework, please check the Compass Discussion Board for assistance, it is monitored closely by our Task for this purpose. Emergencies, illness and the like do occur for even the best students, so to account for this, we will drop your two lowest homework scores at the end of the semester.

There will be NO make-up homework as a result however. This policy will apply even if your absence was excused. Projects: There will be two projects assigned during the course. These are an important part of the overall course, as they are designed to replicate the application of statistics in the real-world. Each project will be done in teams of four students. Teams will be formed in lab with guidance from your TA. If you are not in class the day that the teams are formed, it is your responsibility to track down your team.

To receive credit for each of the projects, you must complete the version of the project that is assigned to your team, and each team member must submit the completed quiz individually. Project I will be an application of simple regression, and is modeled around a project that students taking Finance 300 (Financial Markets) are required to complete. Project II is an application of multiple regression involving the real estate market. This project involves material you learn in Finance 241 (Fundamentals of Real Estate). The projects will be completed using Excel.

Each individual in the team will need to turn in the answerer as obtained through your group work via Papilla, similar to a Homework assignment. The difference between the Projects and Homework is that the Projects are more involved, and will take considerably more effort than a typical homework.

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They also count for more in your final grade. Groups will be given a number of weeks to complete each project. There will be NO written report required as a part of the Projects. Excel Lab Quizzes: Students have suggested that we have you demonstrate your excel skills for part of your grade since we teach you how to do statistical analysis using excel.

While some excel output is always on exams, students have asked for more. This semester we are trying this on an experimental basis. We have taken 10 percentage points of the weight from your exam scores and have moved them to two excel lab quizzes worth 5 percentage points of your grade each. These quizzes will be given during your regular lab sessions and will involve using excel as a meaner of solving problems. You must go to your lab session to take these quizzes and you must take the quizzes in the actual lab to receive credit.

Given the experimental nature of these quizzes, I reserve the right to change the weightings of these quizzes to as low as zero and reweighs the exam scores accordingly. Class Participation: There is no such thing as a stupid question. Dialogue is not only strongly encouraged, it is critical to your understanding of the material. Visualizing your questions often helps you solidify what you do and do not understand. It also revised your instructors important feedback on the areas in which we need to spend more time. This can be a challenge in a large lecture. As in all things, we do the best we can under the circumstances.

During lecture, we will encourage questions and we will solicit input. If we call on you, please relax, we are NOT trying to intimidate you or embarrass

you in any way—far from it. We are trying to encourage active listening, and to keep you engaged in the course. This will greatly assist you in learning the material. If you do not know the answer, we will move on to another student, no worries. Compass Discussion Board: Illinois Compass will be used to post announcements, as well as to give you an opportunity to ask questions online about course content using the Discussion Board.

This is also a great source of help on your homework. Our Task are diligent in answering student questions on the Discussion Board, so please take advantage of this resource. You are responsible for checking for announcements on Compass before each class session. Excused Absences: On occasion, an emergency may arise which prevents you from taking an examination or otherwise performing in the course. To be considered for an excused absence, you must provide the proper documentation explaining your absence. This is done by providing verification through the Office of the Dean of Students.