Introduction to Statistics for Business and Economics (Economics 270)
Spring 2013 Syllabus

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Class meeting: MW 12 noon-1:15pm
Room: CA 008F
Tutor: TBA

Office Hours: MW 2:30-4:30 pm, OR by appointment.

Description: Econ 270 introduces students to statistical thinking. Students will learn how to use statistical thinking to get a handle on the uncertainty and ambiguity in phenomena they want to understand. The course covers sampling distribution, confidence intervals, hypothesis testing, simple regression, and time series. The approach uses many hands-on, in-class experiments to convey the idea that underlies statistics.

Principles of Undergraduate Learning: This course teaches the core communication and quantitative skills principle. In particular, the course teaches how to perform quantitative analysis.

The course also teaches the critical thinking principle. The course teaches how to use data, combined with logic, to reach valid solutions to challenging problems. Also, the course teaches students how to think critically about ambiguous situations.

Finally, the idea that underlies statistics is subtle and powerful. Hence, by teaching this idea, the course advances students’ intellectual depth.

Required texts

To purchase these materials please visit the bookstore.

Bookstore: Purchase access to Aplia from your bookstore. Check with the bookstore to find out what they offer for your course.

After paying, you will have the option to purchase a physical book from the or the E-book.

Course Web Page
https://oncourse.iu.edu/portal/site/SP13-IN-ECON-E270-7977
Student responsibilities

1. Participation in class.
Because the class time is spent explaining ideas from perspectives not in the text and asking questions, I expect diligent class attendance and participation in class discussions and exercises. You are responsible for catching up on any material covered in case you miss class. Finally, although there is no penalty for absenteeism class attendance and active participation is a measure of student effort. These will be taken into account in case for any reason the student has been unable to perform as well as expected in graded problem sets, midterms and the final exam.
You must complete reading assignments BEFORE class.

2. Homework.
We will use the Test & Survey’s Beta tool in OnCourse to submit homework. There will be 5 multiple choice question assignments which will all be posted on the OnCourse Test & Survey’s Beta page. Assignments have to be submitted on this page as well. In case of a problem in using the Test & Survey’s Beta tool of OnCourse Aplia could be used for assignments. However you will be advised in advance if this is the case. You must complete each assignment by the due date and time. If you miss the due date and time, your homework grade will NOT be included in your final grade. All due dates will be mentioned on the course web page in the Assignments 2 section. You are responsible for keeping track of submission dates for problem sets.

3. Mid-term exams.
We will have an exam after each of the first three chapters in the course: Chapter 7 (Sampling Distributions), Chapter 8 (Confidence Intervals), and Chapter 9 (Hypothesis Tests). The fourth midterm will cover Chapter 12 (Simple Linear Regression) and some other topics to be announced. I want to be flexible about when we finish a chapter, so I do not know exactly when the exams will be, but I promise to give one week’s notice.

The midterms and the final will be graded on a straight percentage scale. They are multiple choice tests, but you need to be able to work the problems as in class and in homework assignments to be able to select correct answers.

No excuse other than extreme emergency will be accepted for missing a midterm. If an emergency does arise e-mail me or call Ms. Renollet (274-4756) to inform us of the problem before the midterm. In the case of a legitimate emergency, you will be allowed to miss the midterm, and your final exam grade will be reweighted to account for the weight of the missed exam. Out of fairness to the other students I will ask that you subsequently provide me with written verification of the emergency. Make-up exams will not be given. If there is no emergency (or you do not notify me or Ms. Renollet in advance) you will not be offered a reweighted final exam, and your grade for the missed exam will be the class minimum minus ten points.

All Econ 270 sections take a common final to be held on Thursday May 2, 2012, from 8:00 am – 10:00 am. You must take the exam at this time, no exceptions. You
must not make any plans that would be in conflict with you taking the exam on May 2. If you already have such plans, you must speak to me within the first week of classes, or we cannot guarantee alternative arrangements.

**Grading percentages:**
Homework / participation . . . . . . . . . . . . . . . . . 15 percent  
Midterm 1 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 percent  
Midterm 2 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 percent  
Midterm 3 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 percent  
Midterm 4 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 percent  
Final (May 2) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 25 percent  

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**Course grades**
Problem sets and midterms will be graded as follows:

- A+ 97-100
- A 93-96.99
- B+ 87-89.99
- B 83-86.99
- B- 80-82.99
- C+ 77-79.99
- C 73-76.99
- C- 70-72.99
- D 60-69.99
- F 59.99 or below

In the past, this produces an average grade of around 65 with a standard deviation of around 16. Based on the average and standard deviation, the final course grades will be recalculated based on a curve. Here is how I will curve the course grades. I first calculate a grade based on the above grading percentages. I then give people a grade based on the usual grading scale using which the curve would look something like:

More than 1.5 standard deviations above average (e.g., 89 or more) . . . A
Between 1.25 to 1.5 standard deviations above average (e.g., 85 to 89) . . . A-
Between 1.0 and 1.25 standard deviations above average (e.g., 81 to 85) . . . B+
Between 0.5 to 1.0 standard deviation above average (e.g., 73 to 81) . . . B
Between average and 0.5 standard deviation above average (e.g., 65 to 73) . . . C+
Between 0.5 standard deviation below average to average (e.g., 57 to 65) . . . C
Between 1.0 and 0.5 standard deviations below average (e.g., 49 to 57) . . . C
Less than 1.0 standard deviation below average (e.g., 49 or less) . . . D
However, not all students earn the curve grade. Only those whose effort is commendable will earn the curved grade. I gauge effort by how many of the homework assignments you complete, whether you take the practice final, and your class participation. That is, whether you will get the “straight” grade (usual grading scale) or the curved grade depends on the effort you put into the course.

Note that the “curve” is applied to the final course grade only. I do not curve the individual midterm grades.

Communication: If you send me e-mail through Oncourse, be sure to check the box: Send a copy of this message to recipients’ email address(es)
If you do not check this box, I will not see your e-mail for days.

Americans with Disabilities Act:
If you need any special accommodations due to a disability, please contact Adaptive Educational Services at (317)-274-3241. The office is located in CA 001E.

Spring 2013 Schedule


  Lecture 9 - Midterm 1

  Lecture 15 - Midterm 2

  Lecture 22 - Midterm 3

  Lecture 27 - Midterm 4


Lectures 29 - 30: Prepare for the final exam
  Lecture 29 - You take a practice final exam
  Lecture 30 - Go over the practice final exam

This schedule is subject to change. Any changes will be announced in class and announcements posted via OnCourse page of the course. There could also be homework assigned in class that does not use Aplia.

Cheating
Any instance of copying during the midterms and exams will result in a grade of F for the course and a report to the Dean of Student Affairs. Cheating is a personal insult to me and your fellow
students. Not much makes me angry, but if you cheat and I catch you, it will be ugly. Statements about cheating and plagiarism from IUPUI’s Student Code of Conduct are reproduced below.

**Student Code of Conduct: Section G “Academic Responsibilities and Misconduct”**

The following is copied from the Student Code of Conduct. The entire code can be read at: [http://www.iupui.edu/code/CSR_0106.pdf](http://www.iupui.edu/code/CSR_0106.pdf)

G. Academic Responsibilities & Misconduct

Academic misconduct is defined as any activity that tends to undermine the academic integrity of the institution. The university may discipline a student for academic misconduct. Academic misconduct may involve human, hard-copy, or electronic resources. Policies of academic misconduct apply to all course-, department-, school-, and university related activities, including field trips, conferences, performances, and sports activities off campus, exams outside of a specific course structure (such as take-home exams, entrance exams, or auditions, theses and master’s exams, and doctoral qualifying exams and dissertations), and research work outside of a specific course structure (such as lab experiments, data collection, service learning, and collaborative research projects). The faculty member may take into account the seriousness of the violation in assessing a penalty for acts of academic misconduct. The faculty member must report all cases of academic misconduct to the dean of students, or appropriate official. Academic misconduct includes, but is not limited to, the following:

1. **Cheating**

   Cheating is considered to be an attempt to use or provide unauthorized assistance, materials, information, or study aids in any form and in any academic exercise or environment.

   a. A student must not use external assistance on any “in-class” or “take-home” examination, unless the instructor specifically has authorized external assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, calculators, computers, and wireless communication devices.

   b. A student must not use another person as a substitute in the taking of an examination or quiz, nor allow other persons to conduct research or to prepare work, without advance authorization from the instructor to whom the work is being submitted.

   c. A student must not use materials from a commercial term paper company; files of papers prepared by other persons, or submit documents found on the Internet. A student must not collaborate with other persons on a particular project and submit a copy of a written report that is represented explicitly or implicitly as the student’s individual work.

   d. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.

   e. A student must not steal examinations or other course materials, including but not limited to, physical copies and photographic or electronic images.

   f. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor or program to whom he work is being submitted.

   g. A student must not, without authorization, alter a grade or score in any way, nor alter answers on a returned exam or assignment for credit.
2. Fabrication
A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citation to the sources of information.

3. Plagiarism
Plagiarism is defined as presenting someone else’s work, including the work of other students, as one’s own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered “common knowledge” may differ from course to course.

   a. A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.
   b. A student must give credit to the originality of others and acknowledge indebtedness whenever:
      1. Directly quoting another person’s actual words, whether oral or written;
      2. Using another person’s ideas, opinions, or theories;
      3. Paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
      4. Borrowing facts, statistics, or illustrative material; or
      5. Offering materials assembled or collected by others in the form of projects or collections without acknowledgment.

E270 COMMON FINAL:
Thursday
May 2, 2011
8:00 - 10:00 AM

Every E270 student must plan to take the E270 final at that time. Do not make any other plans that are incompatible with your responsibility to take the final exam at that time!

Do not make travel plans (e.g., buy airline tickets) that are incompatible with your being in Indianapolis on that Thursday morning.
If you have already made such plans let your instructor know IMMEDIATELY.

The exam is not held in your usual classroom. It is held in the

Lecture Hall.
This is the building directly south of Cavanaugh Hall.