

Introduction to Statistics for Economics and Business: Syllabus

Professor Ye Zhang

Office: 509A Cavanaugh Hall

Phone: (317) 274-0822

Email: zhang65@iupui.edu

Website: <http://mypage.iu.edu/~zhang65>

Office Hours: Monday 10:00AM–11:00AM & Tuesday 2:00 PM–3:00 PM, or by email appointment

Lectures and Sections

This is Section 19963. Each week there will be two lectures of 75 minutes on Tuesday and Thursday, from 12:00 PM to 1:15 PM. The location is 3009 Business/SPEA Building (BS).

Course Description and Prerequisites

E 270 introduces students to applications of statistical methods in business and economics. In this class you will become familiar with how to use and interpret basic descriptive statistics, probability distributions, point and interval estimations, statistical inference, forecasting, and simple regression analysis. The course will focus on concepts and practice, keeping aside as much of the analytics and the theoretical background of the methods as possible. Special attention will be paid to the statistical practice using real data sets and settings.

The prerequisite of E 270 is MATH 118–Finite Mathematics. If you have not taken MATH 118, you must check with me before taking the course.

Textbooks and Readings

The required textbook for the course is:

Anderson, David R., Dennis J. Sweeney, and Thomas A. Williams, *Essentials of Statistics for Business and Economics*, (Fifth Edition), Thompson South-Western, 2008. (ASW)

CengageNOW (computer-based homework system) which comes with the book package is required and the ISBN for the bundle is **0324678185**.

Another option is to purchase the stand alone CengageNow with access to an online text, the ISBN for the CengageNow package is **0324678363**.

All these packages are available at the IUPUI Bookstore.

There will also be lecture notes, handouts, and additional readings distributed in class according to the course schedule.

Academic Integrity

Indiana University-Purdue University Indianapolis has a Code of Student Conduct, administered by the Office of the Dean of Students. This Code sets standards for academic integrity at IUPUI for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism.

Grading

Homework: 20%; Four Midterm Exams: 15% each; Common Final Exam: 20%. In computing the final grade, your course grade based on the above percentages will be curved according to the actual class average and standard deviation. The specifics of the curve follows:

- A More than 1.5 standard deviations above the class average
- A- Between 1.0 to 1.5 standard deviations above the class average
- B+ Around 1.0 standard deviation above the class average
- B Between 0.5 to 1.0 standard deviation above the class average
- C+ Between 0.5 standard deviation above the class average and the class average
- C Between the class average and 0.5 standard deviation below the class average
- C- Between 0.5 to 1.0 standard deviation below the class average
- D Less than 1.0 standard deviation below the class average

Homework

Homework will be assigned on a regular schedule and through CengageNow. The book package you purchased includes your Access Code that you need to register CengageNOW. After you register with CengageNow, you will need a “Course Key” that will permit you to use materials specific to my section of E 270. Our Course Key is **E-3BA3J3DEHYCSM**.

The homework is always graded on a Pass/Fail basis. You need to earn an 80 percent or better to get the “Pass”.

Midterm Exams

There will be a Midterm Exam after each of the topics we cover. No excuse other than extreme emergency will be accepted for missing a Midterm Exam. If an emergency does arise, please email me before the Midterm Exam to inform me of the problem.

In all the Midterm Exams, you will be permitted to bring in a single sheet (two-sided, $8\frac{1}{2} \times 11$) of notes and a calculator; no textbooks, computers, cell phones, iPAQs, iPODs, *etc.*

It is important to remember there will be no make-up Midterm Exam. If you miss the Midterm due to documented illness or family emergency, your grade will be computed without the Midterm Exam with weights on other components adjusted to sum to unity. If there is no documentation of the emergency or you fail to notify me in advance, you will not be offered a re-weighted final grade, and your grade for the missed Midterm Exam will be zero.

Common Final Exam

E 270 has a Common Final Exam, which means that you will take the Final Exam on the same day with all the other E 270 students. The Common Final Exam for Spring Semester 2008 will be held on **Wednesday April 30 from 8:00 AM–10:00 AM**.

Please note that the Common Final Exam is not held in your usual classroom, it is held in the **Lecture Hall (LE)**.

In the Common Final Exam, you will be permitted to bring in three sheets (two-sided, $8\frac{1}{2} \times 11$) of notes and a calculator; no textbooks, computers, cell phones, iPAQs, iPODs, *etc.*

Every E 270 student must plan to take the Common Final Exam at the above time and location. Please do not make any other plans that are incompatible with your responsibility to take the Common Final Exam and please do not make travel plans or buy airline tickets that are incompatible with your being in Indianapolis on that Wednesday morning. If you have already made such plans, let me know immediately.

Website and Email

All the course announcements and related materials will be posted on the Oncourse website according to the schedule, you should check it periodically to get updated information about the course.

I will also use Email to distribute information about the course. If you are not getting your email, you need to make sure that I have your correct email address. I am not responsible for your failure to receive course related emails.

Course Outline

01/08	Introduction and Review of Basic Statistics Concepts (ASW Ch. 1 ,2, and 4)
01/10	Review of Probability Distribution (ASW Ch. 3, 5, and 6)
01/15	Sample Statistics and Sampling Distribution I (ASW Ch. 7)
01/17	Sample Statistics and Sampling Distribution II (ASW Ch. 7)
01/22	Sample Statistics and Sampling Distribution III (ASW Ch. 7)
01/24	Sample Statistics and Sampling Distribution IV (ASW Ch. 7)
01/29	Sample Statistics and Sampling Distribution V (ASW Ch. 7)
01/31	Midterm Exam 1
02/05	Midterm Exam 1 Discussion
02/07	Interval Estimation I (ASW Ch. 8)
02/12	Interval Estimation II (ASW Ch. 8)
02/14	Interval Estimation III (ASW Ch. 8)
02/19	Interval Estimation IV (ASW Ch. 8)
02/21	Interval Estimation V (ASW Ch. 8)
02/26	Midterm Exam 2
02/28	Midterm Exam 2 Discussion
03/04	Statistical Inference I (ASW Ch. 9, 10, and 11)
03/06	Statistical Inference II (ASW Ch. 9, 10, and 11)
03/11	Spring Break
03/13	Spring Break
03/18	Statistical Inference III (ASW Ch. 9, 10, and 11)
03/20	Statistical Inference IV (ASW Ch. 9, 10, and 11)
03/25	Statistical Inference V (ASW Ch. 9, 10, and 11)
03/27	Midterm Exam 3
04/01	Midterm Exam 3 Discussion
04/03	Simple Linear Regression Model I (ASW Ch. 12)
04/08	Simple Linear Regression Model II (ASW Ch. 12)
04/10	Simple Linear Regression Model III (ASW Ch. 12)
04/15	Forecasting (ASW Lecture Notes)
04/17	Midterm Exam 4-Part I
04/22	Midterm Exam 4-Part II
04/24	Midterm Exam 4 Discussion
04/30	Common Final Exam