Introduction to Statistics for Business and Economics (E270)

Spring Syllabus

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Class meeting: TH. 10:30-11:45 am at CA 239
Office Hours: Th. 1:00-3:00 pm or by appointment.

Course description
E270 introduces students to applications of statistical methods in business and economics. Students will learn how to use statistical thinking to get a handle on the uncertainty and ambiguity in phenomena they want to understand. Students 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.

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 text
2. Aplia on-line system for homework assignments

To purchase these materials you have two options:
1. Hardcopy (Looseleaf version) textbook bundled with Aplia access code (ISBN: 9781285564517; Spring 2013)

You can purchase either option through our campus bookstore or through Aplia.com. The looseleaf version textbook bundled with Aplia access code at the campus bookstore is $122. If you make purchase from Aplia.com, you will need a “Course Key”. Our course key is: K4SZ-XKMT-4WZ8

We will use the Aplia computer-based homework system to do homework. You must register for Aplia before our next class meeting! The registration instructions follow on the next page:
How to access your Aplia course

Wu, ECON-E 270, Spring 2013

Instructor: Jisong Wu
Start Date: 01/07/2013
Course Key: K4SZ-XKMT-4WZ8

Registration

Aplia is part of CengageBrain, which allows you to sign in to a single site to access your Cengage materials and courses.

A. Connect to http://login.cengagebrain.com/
B. If you already have an account, sign in. From your Dashboard, enter your course key (K4SZ-XKMT-4WZ8) in the box provided, and click the Register button.
If you don't have an account, click the Create a New Account button, and enter your course key when prompted: K4SZ-XKMT-4WZ8. Continue to follow the on-screen instructions.

Payment

Online: Purchase access to your course (including the digital textbook) from the CengageBrain website.

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 at a discounted price. If you choose to pay later, you can use Aplia without paying until 11:59 PM on 01/27/2013.
Grading

Homework: 20%; Quizzes: 10%; Four Midterm Exams: 10% each; Common Final Exam: 30%. 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 follow:
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

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. There will be some quizzes distributed at the end of some lectures as attendance account.
   You must complete reading assignments BEFORE class.

2. Homework.
   We will use the Aplia computer-based homework system to do homework. 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 are mentioned on the course web page in the assignments section. You are responsible for keeping track of submission dates for problem sets.

3. Mid-term 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, 8½x11) 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.
4. Common final exam

E270 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 2013 will be held on **Thursday May 2 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, 81/2 x11) 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 Thursday 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. However, I did not check messages from Oncourse and if you have any questions, please send email to jiswu@iupui.edu.

**Feedback:**

I highly encourage you to provide me with feedback as we progress through the semester. Good communication is essential to make sure the course runs as smoothly as possible. You can come to my office hour, send emails to me, and leave feedback on my mailbox anonymously.
Spring 2013 Schedule:

Lecture 1  Introduction and Review of Basic Statistics Concepts (ASW Ch. 1, 2, and 4)
Lecture 2  Review of Probability Distribution (ASW Ch. 3, 5, and 6)
Lecture 3  Sample Statistics and Sampling Distribution I (ASW Ch. 7)
Lecture 4  Sample Statistics and Sampling Distribution II (ASW Ch. 7)
Lecture 5  Sample Statistics and Sampling Distribution III (ASW Ch. 7)
Lecture 6  Sample Statistics and Sampling Distribution IV (ASW Ch. 7)
Lecture 7  Sample Statistics and Sampling Distribution V (ASW Ch. 7)
01/31    Midterm Exam 1
Lecture 9  Midterm Exam 1 Discussion
Lecture 10 Interval Estimation I (ASW Ch. 8)
Lecture 11 Interval Estimation II (ASW Ch. 8)
Lecture 12 Interval Estimation III (ASW Ch. 8)
Lecture 13 Interval Estimation IV (ASW Ch. 8)
Lecture 14 Interval Estimation V (ASW Ch. 8)
02/26    Midterm Exam 2
Lecture 16 Midterm Exam 2 Discussion
Lecture 17 Statistical Inference I (ASW Ch. 9, 10, and 11)
Lecture 18 Statistical Inference II (ASW Ch. 9, 10, and 11)
Lecture 19 Statistical Inference III (ASW Ch. 9, 10, and 11)
Lecture 20 Statistical Inference IV (ASW Ch. 9, 10, and 11)
Lecture 21 Statistical Inference V (ASW Ch. 9, 10, and 11)
03/28    Midterm Exam 3
Lecture 23 Midterm Exam 3 Discussion
Lecture 24 Simple Linear Regression Model I (ASW Ch. 12)
Lecture 25 Simple Linear Regression Model II (ASW Ch. 12)
Lecture 26 Simple Linear Regression Model III (ASW Ch. 12)
Lecture 27 Forecasting (ASW Lecture Notes)
04/18    Midterm Exam 4-Part I
04/22    Midterm Exam 4-Part II
Lecture 30 Midterm Exam 4 Discussion
05/02    Common Final Exam