

**Statistics 102 Fall 2013**  
Introduction to Business Statistics

Linda Zhao: lzhao@wharton.upenn.edu, Office: 470-JMHH.

Office Hours: 3:00 – 5:00 pm Mondays or by appointment

Textbook: *Applied Regression Analysis for Business and Economics*, Terry Dielman, Fourth edition. Duxbury (Most sections of Chapter 1 - 11 will be covered.)

Additional optional reading: *Statistics for Business, Decision making and Analysis*, Stine and Foster, 2011, Addison Wesley

Canvas: Most of the materials including announcements, lecture notes, homework, solutions, etc. will be available on our Canvas site.

Lecture notes: We will mainly deliver our lectures through slides and blackboard. Lecture slides will be available in our Canvas. We expect you to print out the slides before the class.

Computer package: The computer software JMP 10 will be used in the course. To access the software you need to purchase a 6-months (or longer) license at <http://upenn.onthehub.com>. JMP is also available in all the Wharton computer labs (F75-JMHH, F80-JMHH, 375-JMHH and 380-JMHH) and group study rooms.

Homework and Projects: Homework will be assigned and posted in our Canvas. Most homework assignments will be from the textbook, but there will also be three special assignments ("**mini-projects**"). Both homework and mini-projects will be collected and will be graded. The lowest homework score will be dropped at the end (not the mini-projects). (**No late homework or projects are acceptable.**)

Exams: There will be **three** in class quizzes, **one midterm** and a **final**. The midterm and final will be semi-closed book, i.e. a certain number of pages of notes are allowed. The quizzes will be closed book short exams (~10 minute each).

Quizzes:

**Quiz 1: Tuesday, Sept. 17<sup>th</sup>**

**Quiz 2: Tuesday, Oct. 08<sup>th</sup>**

**Quiz 3: Tuesday, Nov. 19<sup>th</sup>**

**Midterm**: 6:00 pm - 7:30 pm, **Monday, Oct. 21<sup>th</sup>**

**Final exam**: 6:00 pm - 8:00 pm, **Thursday, Dec. 19<sup>th</sup>**. (Comprehensive)

Grade allocation:

Homework and Projects: 20%

Quizzes: 8%

Midterm: 27%

Final: 45%

(The lowest homework score and lowest quiz score will be ignored in the final grade.)

TAs:

Kapelner, Adam: kapelner@wharton.upenn.edu

Office Hours:

Satopaa, Ville: satopaa@wharton.upenn.edu

Office Hours:

Syllabus:

- 1: 08/29/TH  
Lect 1-2: Normal distributions
- 08/30/Friday JMP tutorial session 1 (optional) (4:00-5:30)  
09/02/Mon JMP tutorial session 2 (optional) (4:00-5:30)

- 2: 09/03/Tu  
Lect 1-2: Confidence intervals and hypotheses tests

- 3: 09/05/TH  
Lect 3-4: Two population means

- 4: 09/10/Tu  
Lect 3-4: Two population means

**\*Homework 1: due by 5pm, Friday, Sept. 13.**  
Use boxes in JMHH 400 = Stat Dept

- 5: 09/12/TH  
Lect 5: Simple regression

- 6: **09/17/Tu/**  
**\*Quiz1: covers Lecture 1-4**  
Lect 6: Simple regression inference

- 7: 09/19/TH  
Lect 7: Goodness of fit

**\*Homework 2: due before 5pm on Tuesday, Sept. 24th**  
(In class or use boxes in JMHH-400)

- 8: 09/24/Tu  
Lect 8: Prediction

**\*Homework 3: due before 5pm on Tuesday, Oct. 1**  
(In class or use boxes in JMHH-400)

- 9: 09/26/TH  
Lect 9-10 Model Diagnostics

- 10: 10/01/Tu  
Lect 9-10 Model Diagnostics

**\*\*Project 1: Due before 5pm on Tuesday Oct. 08, in 400JMHH**

- 11: 10/03/TH  
Lect 11: Multiple reg. Part I
- 12: 10/08/Tu  
\* **Quiz 2 (lec 5 to lec 10)**  
Lect 12: Multiple reg Part II
- 10/10/ TH Fall Break, No class
- 13: 10/15/Tu  
Lect 13: Multiple reg Part III
- \* **Homework 4** due before 5:00pm on Friday, Oct 18 , **in 400 JMHH.**
- 10/17 /TH Midterm Review (No new lecture)
- \*\*\* **10/21/Mon Midterm: 6:00 pm - 7:30 pm**  
***(Lect 1- lecture 13)***
- 14: 10/22/Tu  
Lect 14: Polynomial reg
- 15: 10/24/TH  
Lect 15: Model Building
- 16: **10/29/Tu**  
Lect 16: Leverage, colinearity
- 17: 10/31/TH  
Lect 17: Leverage, colinearity
- \*\*Project 2** due before 5:00 pm on Monday, Nov 04 **in 400JMHH**
- 18: 11/05/Tu  
Lect 18: One way ANOVA
- 19: 11/07/TH  
Lect 19: Two way ANOVA
- 20: 11/12/Tu  
Lect 20: Two way ANOVA
- \* **Homework 5: due 5:00 pm, Friday, Nov. 15, in 400 JMHH**
- 21: **11/14/TH**  
Lect 21: ANCOVA
- 22: 11/19/Tu  
\* **Quiz 3 (Lect 18- Lect 21)**  
Lect 22: Time Series

23: 11/21/TH

Lect 23: Financial data

**\*\*Project 3 due 5:00pm, Tuesday, Nov. 26**

24: 11/26/Tu

Lect 24 Logistic reg I

25: 12/03/Tu

Logistic reg I and II

26: 12/05/TH

Logistic reg II

**\* Homework 6: Due before 5:00pm Tuesday, Dec. 10, in 400 JMHH**

27: 12/10/Tu Contingency table

**\*\*\*\* 12/19/2013 6:00-8:00 pm: Final exam Comprehensive!**

Syllabus upload: We have a school-wide Syllabus Repository  
(<http://syllabi.wharton.upenn.edu>)