Department of Statistics
The Wharton School
University of Pennsylvania

Statistics 102   **Fall 2009**

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Professor: Paul Shaman
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Office: 468 JMHH
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Office hours: TTh 3-6 and by appointment

Classes meet: Section 001, TTh 10:30-11:50, in 351 SH-DH
                        Section 002, TTh 1:30-2:50, in F85 JMHH

Teaching Assistants and Stat Lab

Name:
Email:
Office/Phone:

The Department operates a Stat Lab. Location and hours are posted on webCafe (see below).

Course web site

Statistics 102 is using webCafe. You can gain access by going to http://webcafe.wharton.upenn.edu and following the link to the Statistics Department. All materials for this course will be distributed and managed via the web site, and you will be able to monitor your grade entries throughout the semester.

Note for non-Wharton students: You will need to establish a Wharton Computing Account to access webCafe. The account also allows use of the computing labs in Wharton. You must have a current Penn ID card to obtain an account. To get an account, go to

       http://apps.wharton.upenn.edu/accounts/class

After you have obtained your account, allow some time for activation.

Course Overview

This course develops ideas for helping to make decisions using four fundamental statistical methods: Regression analysis, the analysis of variance, logistic regression, and time series. Students beginning the course should be familiar with the key ideas covered in Statistics 101: data display (including boxplots, histograms, the normal distribution, scatterplots), summary statistics (including mean, median, standard deviation), and basic properties of statistical estimates and tests (including standard error, confidence intervals, p-values). These topics will be reviewed and discussed as we encounter them.

The course will focus on critical interpretation and analysis of assumptions. We will use JMP software to carry out computations. The course does not dwell on the details of computation—its main focus is understanding and interpretation of statistical results.

Materials

Business Analysis Using Regression: A Casebook, by D. Foster, R. Stine, and R. Waterman, Springer-Verlag, 2001 (revised printing).

Class notes. These will be posted on webCafe and are the main resource for the course.

JMP 7 statistical software. I *highly recommend* you buy the software so that you have it on your own computer. We will use it extensively in class, and you will need to know how to read its output and use it for assignments and for reading and interpreting quiz and examination questions. When you place the software on your computer you will also have installed five manuals and two cards for quick reference, all in pdf format. JMP 7 is installed in Wharton classrooms and is available on machines in the Wharton Computer Labs, located in F75 and F80 JMHH.

JMP 7 may be purchased from estore.e-academy.com. A six-month license costs $29.95 and a twelve-month license sells for $49.95. If you have JMP version 5 or 6, it will be sufficient.

Homework

- There will be eight homework assignments.
- Each homework will be assigned at a lecture and will be due in class a week later unless otherwise noted.
- *Homework will not be accepted late*.
- The homework is designed to teach and you are encouraged to seek help from the instructor and the TA if you have questions. You may also work with and help each other. *Unless otherwise instructed*, *though, you must submit your own solutions, with your own writeup*.

Examinations

Two midterm examinations are scheduled:

> Tuesday, October 13th, 6-8 pm

> Thursday, November 12th, 6-8 pm

The final examination will be Tuesday, December 15th, 6-8 pm.

In-class quizzes will be held approximately every other week. Each quiz will last ten minutes and will begin at the start of class. There will be six quizzes during the semester. Each quiz will be announced in advance in class, and a reminder will be posted on webCafe.

Quizzes should be written in ink. Those submitted in pencil will not be considered for regrading.

Grading and Grading Policy

- Your course grade will be calculated as 20% homework, 20% quizzes, 30% midterm examination score, and 30% final examination.
- Your lowest homework score will be dropped. Nonsubmission counts as a zero score.
- Your lowest quiz score will be dropped. A missing quiz counts as a zero score.
- The midterm examination score is the greater of your two individual midterm examination scores. A missing midterm examination counts as a zero score. There will be no makeup midterm examinations.

Calendar

Classes will be held Tuesday and Thursday all weeks except the following:

- The week of September 7th—the first class is Thursday, September 10th.
- The week of November 23rd—Thanksgiving occurs this week and only the Tuesday class will be held.

Note that Fall Break this year is Saturday through Monday, 17–19 October.

The last class day is Thursday, December 10th. Altogether there are 26 class days (Tuesday-Thursday schedule).

Drop and Withdrawal

The drop deadline is Friday, 16 October. The withdrawal deadline is Friday, 20 November.