# Department of Statistics The Wharton School University of Pennsylvania

Statistics 101 Spring 2010

**Instructors:** Andreas Buja (Sections 001 and 002)

Mikhail Traskin (Section 003)

**Offices:** JMHH 471 (AB), 466 (MT)

**Contact:** Send e-mail only in case of emergency.

For the e-mail address, see the instructors' web pages.

Your primary source for questions and answers should be the webCafe discussion board (see below). Otherwise, send e-mail to the TAs.

Classes meet: Section 001, Mon/Wed 1:30-3:00, in F85 JMHH

Section 002, Mon/Wed 3:00-4:30, in F85 JMHH Section 003, Tue/Thu 1:30-3:00, in 365 JMHH

**Office hours:** Sections 001/002: Mon 12:30-1:15 and 4:30-5:30, 471 JMHH (AB)

Section 003: Tue/Thu 3:15-4:30, 466 JMHH (MT)

### **Teaching Assistants and Stat Lab**

Name: Alex Goldstein Justin Rising Jordan Rodu

**E-mail:** alexlg jrising jrodu (...@wharton.upenn.edu)

**Office:** 431-3 434-1 434-2 (JMHH) **Office Hours:** (tba) (tba) (tba) (all sections)

The Stat Lab provides help with statistics to anybody on campus. It is located in F96 JMHH and is open on days when classes are in session. For staffing and hours, see

http://stat.wharton.upenn.edu/~sivana/statlab.html

Whoever you find there may or may not be able to help with homework. Most useful for you are the Stat Lab hours staffed by our own TAs:

Alex Goldstein: (tba) Justin Rising: (tba) Jordan Rodu: (tba)

### **Course website**

Statistics 101 is using webCafe. You can gain access by going to

http://webcafe.wharton.upenn.edu

and following the link to "STAT" and then to your section. All materials for this course will be distributed and managed via this website, and you will be able to monitor your grade entries throughout the semester.

An important feature of webCafe is the **discussion board** where everybody can place questions and comments. We will be using it extensively for answering your questions about homeworks, exams and scheduling. You are urged to go there first to see whether your question has already been asked and answered, and, if not, to place your question so it can be answered once for everybody.

**Note for non-Wharton students:** If you do not have a Wharton computing account, you will need to establish one to access the website. The account also provides access to the computing labs in Wharton and to the intranet. To get an account, on or after the first day of classes, go to

### http://accounts.wharton.upenn.edu

After you have obtained your account, allow up to 12 hours for activation. Wharton students and students who have recently taken a Wharton course have existing accounts.

#### **Course Overview**

This course develops ideas for helping to make decisions based on data. Some of the following material will be covered: data displays and summary statistics for quantitative and qualitative variables; correlation and simple regression for pairs of variables; probability as a measure of uncertainty and as limiting relative frequency; the law of large numbers; the normal distribution and the central limit theorem; statistical inference based on standard errors, confidence intervals and statistical hypothesis tests.

The course does not dwell on the details of computation—its main focus is on understanding a few deep concepts and interpreting data and statistical results.

### **Course Materials**

- Textbook: a new book by Foster and Stine. To keep cost down you may purchase a used copy of the preliminary version of last semester. We will work around any discrepancies between the new and the preliminary version.
- Computer software: JMP 8. Download with a 3-year license from <a href="http://upenn.onthehub.com/">http://upenn.onthehub.com/</a>

The software will also be used in Stat 102. If you have a Mac or any version of Windows you should have no problems. (You can save the money by just working on public Wharton computers, all of which have JMP installed.)

If the textbook is not sufficient, you may consult other books, such as "The Practice of Business Statistics" by Moore, McCabe, Duckworth and Sclove, or "Statistics" by Freedman, Pisani and Purves.

#### Homework

- There will be about 10 homework assignments.
- Homeworks will be assigned on webCafe and will usually be due a week later.
- Homeworks should be written by editing a copy of the MS Word file that contains the problem statements. Each solution should be inserted after the respective problem statement following "YOUR SOLUTION:". Handwriting is not accepted.
- Back up your work frequently on a data stick, so you can print and e-mail it from a Wharton computer if yours breaks down.
- Hand in your homework solutions always in both of the following ways::
  - Hand in a stapled paper copy of your solutions in the Statistics Department (JMHH, 4<sup>th</sup> floor, turn right exiting from the elevator) in the box marked with your section (not in class and not to the TAs), **AND**
  - o E-mail your MS Word file to <a href="mailto:stat101.at.wharton@gmail.com">stat101.at.wharton@gmail.com</a> with the subject line indicating the homework ("Subject: HW3", for example).

For re-grades and missing claims, there must be an electronic e-mail copy with date.

- Late homeworks will incur a deduction of 2 points per whole day and 1 point per fraction of day past the due date. Late homeworks must be handed to the TAs directly, not placed in the submission box.
- If you have a valid reason for late homework submission (e.g., computer broken, health problem), explain your situation to the instructor in class and he will validate your paper copy with a note to the TAs so they grade your work without point deduction.
- Your solutions must show on the cover page your
  - o name (as it appears on webCafe),
  - o section.
  - o school (Wharton/non-Wharton), and
  - o year (freshman, sophomore,...).
- Homework is designed to teach, and you are encouraged to seek help from the instructor and the TAs if you have questions. You may also work with and help each other. You must, however, submit your own solutions, with your own write-up and in your own words. Verbatim copying is a violation of the honor code.
- Graded homeworks will be returned in the same boxes in the Statistics Department.
- Homeworks are typically graded with a maximal score of 20.
- Scores for homeworks are finalized one week after the graded copies are handed back. Thereafter there will be no changes and no re-grading. Do not delay checking your graded homeworks to the end of the semester. Missing homeworks receive a score of zero.

#### **Examinations**

There will be one midterm examination, to be held Wed, March 17, 6:00-8:00pm. The final examination will be Tue, May 4, 6:00-8:00pm.

Room assignments will be announced on webCafe closer to the exam dates. During examinations strict rules will be in effect with regard to *honor code*.

## **Grading and Grading Policy**

- Your course grade will be calculated as 25% homework, 30% midterm examination, and 45% final examination. (What this means will be discussed during the semester.)
- All homeworks will be included in the computation of the final grade; there is **no** "drop the lowest" policy. Missing homeworks will be counted as a zero score.

Even though homework counts only for 25% of the grade, it is important to complete all homeworks as a missing homework can cause serious deterioration of the grade.