

The University of Chicago Booth School of Business
BUS 41000: Business Statistics
Syllabus for Spring 2014

Prof. Mladen Kolar (mkolar@chicagobooth.edu; 773-834-8523)

Course Site: We will be using Chalk.

Office 306: I will be available by appointment (email is best)

TA: Jing Wu (jwu7@chicagobooth.edu)

Review Session:

Gleacher Center – 204
12:15 - 1:15 pm Saturdays.

Recitation sections are intended for homework assistance, basic software support, and exam review.

Course Summary:

This is a course on probability and statistics, with a focus on how probability and statistics ideas can be used to make better business decisions. The goal of the course is to learn how to use statistical methods, to analyze data, and to develop problem solving skills. The tools introduced in this course provide the foundation for Chicago Booth elective courses, particularly in marketing, economics, finance and more advanced statistics courses.

The topics covered include: (i) descriptive statistics and plots used to summarize data; (ii) random variables and expectation; (iii) modeling and inference: population and sample quantities, confidence intervals, hypothesis tests and p-values; (iv) simple linear regression; (v) introduction to multiple regression. The course will emphasize real-world examples to illustrate concepts that are introduced in class.

Text/Notes:

There is no course pack or required textbook for the class. All lecture notes and course materials will be available through Chalk.

Optional textbook:

OpenIntro Statistics by David M Diez, Christopher D Barr , and Mine Çetinkaya-Rundel

<http://www.openintro.org/stat/textbook.php>

An inexpensive copy can be ordered from Amazon.

Evaluation:

Grades will be determined by *homework* (15%), a *midterm exam* (35)%, and a *final exam* (50%).

Homework:

Homework assignments will be given weekly. There is no assignment due on the first week of class. Students are encouraged to form groups (max size 3) for homework. Only one write-up per group needs to be turned in. I highly encourage students to work all the problem sets on their own and then meet to discuss answers as a group. Homework assignments will be submitted in class the week after they are assigned and should have a clear and professional presentation. **Late homework assignments will not be accepted.** If you are unable to make it to class, please email a PDF version of the homework to the TA and me before lecture.

Midterm Examination:

This will be a closed-book exam in week 6, two hours in length given during class. You are permitted to take a single (8.5"x11") sheet of notes (both sides can be used) to the exam.

Final Examination:

This will be a closed-book exam 3 hours in length at the regularly scheduled time. You are permitted to take two 8.5"x11" sheets of notes (both sides can be used) to the exam.

Please bring a calculator to the exams. Sharing of calculators is **not** permitted. Devices capable of transmitting wireless signals may not be used as calculators.

It is expected that if you are enrolled in this class, you can make the exam dates and times.

No request for rescheduling will be entertained on or after the date of an exam.

Only extreme personal problems are a reason for rescheduling – conflicts due to recruiting and/or other classes do not qualify.

Re-grades: Clerical errors will be corrected without hassle, but other requests must be submitted **in writing and within one week** of the homework/exam return. In your cover letter, you need to clearly explain what is wrong. The entire exam will be subject to re-marking.

Students must adhere to Booth Honor Code. But you do not need to include the honor code, and signatures, etc., on your work.

Letter Grade Policy:

The University of Chicago Booth School of Business mandates a maximum (not a minimum!) class grade point average of 3.33 across the sections that I teach. The overall class scores will be used to rank the class and grade cutoffs are chosen so that this upper bound is respected. The letter grades used are A, A-, B+, B, B-, C, D (lowest passing grade) and F (fail).

Prerequisites:

If you have a weak math background some kind of math review prior to the course is recommended.

Computation:

The primary software will be MS Excel. However, you are welcome to use other software packages of your choice.