

## Syllabus for IEOR 4307 (Applied Statistical Models in OR) Spring 2015

**Course Focus** This course focuses on statistical tools that are frequently used in Operations Research. Topics include:

- Sampling statistics,
- Estimation,
- Hypothesis testing, and
- Regression.

**Instructor** The course is taught by Dr. Ton Dieker (ton.dieker@ieor.columbia.edu).

**Course assistant** TBA.

**Classroom** TBA; meeting times: 11:40am - 12:55pm Tue/Thu.

**Class material** We use the book “Applied Statistics and Probability for Engineers, 6th edition” by Douglas C. Montgomery and George C. Runger, as well as some supplementary material. Supplementary class material will be posted on <https://courseworks.columbia.edu>.

**Homework Exercises** Homework will be given every week. No late homework will be accepted.

**Project** Students are required to do a group project, the topic of which can be chosen in discussion with the instructor. It is a requirement for your project to include some computer programming (in a language of your choice, depending on the project). At the end of the semester, you are required to submit a report on your project. A guideline for its length is 10-15 pages (excluding references and computer code). You are also required to submit your computer code.

**Exams** There are two in-class exams and a final exam. The first midterm will be on February 24, 2015. The second midterm will be on April 7, 2015. The final exam will be in the week of May 8; details to be announced.

**Grading** Homework 10%; First midterm 20%; Second midterm 20%; Final exam 35%; Project report 15%.

Your grade for the report is based on five equally weighted components: difficulty, correctness, content, style, and mechanics.

**Office Hours** My office hours will be from ???pm to ???pm on Tuesdays and Thursdays, and by appointment. My office is 333 Mudd.

**Honor Code** Students are reminded to observe the IEOR Code of Academic Integrity.