

**Stat 627b, Statistical Consulting. John Emerson and John Hartigan, 2005.**

Statistical consulting and collaborative research projects often require statisticians to explore new topics outside their area of expertise. This course exposes students to real problems, requiring them to draw on their expertise in probability, statistics, and data analysis. Students complete the course with a variety of individual projects including (a) the exploration of commonly used statistical software packages, (b) reports of consulting work from the statistical clinic, and (c) other projects as assigned by the instructors.

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Class Hours: Tuesdays, 2:30-4:00 PM, Brewster Hall.

Statistical Clinic: Either 1-2:30 (JAH) or 2:30-4:00 (JE) as assigned, Brewster Hall.

Tuesday classes will include (a) presentations by visiting faculty and researchers, (b) student presentations on the most popular statistical software packages, (c) discussion of problems encountered in the Friday consulting sessions, and (d) presentations of advanced topics in applied statistics.

Friday's clinics are open "drop-in" hours for members of the Yale community seeking statistical consulting and programming help. As a result, the daily schedules will be somewhat unpredictable, but will often include "hands-on" exercises revolving around the topics covered in Tuesday's class.

Over the course of the semester, students will be required to complete several presentations, reports, or projects as assigned.

The 2<sup>nd</sup> year graduate students in statistics (who will also be taking Stat 626b) will be required to complete a longer Practical Project in order to fulfill their degree requirement. Other students are invited to complete similar projects in place of two of the shorter, assigned projects. Topics for these projects will be finalized in January; a preliminary report is required before Spring Break, with the final project submitted at the end of the semester.