Course Information

Course: Advanced Statistical Methods, PSTAT 220C, Spring 1998.

Instructor: Yuedong Wang, South Hall, Room 5509. Phone: 893-4870. E-mail: yuedong@pstat.ucsb.edu. Web: http://www.pstat.ucsb.edu/~yuedong.

Time: MWF 11:00 - 11:50

Place: HSSB 2202

Office hour: MW 13:00 - 14:00, or by prior appointment

Purpose of this class: This is the third quarter of the one year graduate course 220ABC on *applied* statistical methods. The aim is to develop analytical skill for the statistical analysis of data, with emphasis on the basis for the methods, the implementation of the methods, and report writing. We will be using S-Plus throughout the year to demonstrate how these methods work, but there will also be some exposure to SAS in the middle of the course.

Topics: Generalized additive models; multivariate analysis; survival analysis; tree methods; neural networks.

Prerequisites: Pstat 120ABC and Pstat 220AB, or consent of instructor.

Text: available at Ucen Book store.

1. Venables, W. N. and Ripley, B. D. (1994), *Modern Applied Statistics with S-Plus*, Springer.

2. Mardia, K. V., Kent J. T. and Bibby, J. M. (1979), *Multivariate Analysis*, Acadimic Press. Reserved in the library.

Additional Reference: reserved in the library.

1. Johnson, R. A. and Wichern, D. W. (1992), *Applied Multivariate Statistical Analysis*. Prentice Hall.

2. Kalbfleisch, J. D. and Prentice, R. L. (1980), *The Statistical Analysis of Failure Time Data*, Wiley.

3. Cox, D. R. and Oakes, D. (1984), *Analysis of Survival Data*. Chapman and Hall.

Course Grading: Homework, projects, final exam.