Statistics 135 **Spring 2004**

Introduction to the Theory of Statistics

Time & Place: Lecture: 10-11 MWF, 9 LEWIS
Labs: 2-3 & 3-4 W, 332 EVANS

Instructor: Thomas Bengtsson
349 Evans Hall
telephone: 642-7495
email: tocke@stat.berkeley.edu
web: http://www.stat.berkeley.edu/∼tocke/

Instructor Office Hours: 12:30-1:30 M & 1:30-2:30 T

GSI: Ingileif Hallgrimsdottir, 337 Evans Hall,
email: ingileif@stat.berkeley.edu
GSI Office Hours:

Text: *Mathematical Statistics and Data Analysis, 2nd edition*, J. Rice

Prerequisites: One semester of probability theory at the upper division level, such as Statistics 101 or 134.

Requirements and Grading Policy: Grading will be based on two midterms, a final, weekly lab and homework assignments (and possibly a final project). I plan to give the midterms on February 25 and April 2, although these dates may be changed as the semester progresses. Your grade will be based on the following breakdown.

Midterm#1	Midterm#2	Final	Homework	Labs
15%	15%	30%	20%	20%

Homework assignments and labs will be posted on the web.

Course Description: This class is an introduction to the theory and application of statistical methods. Although some theory will be covered, emphasis will be on statistical methodology and techniques. The topics to be covered include fundamental concepts of mathematical statistics, such as estimation and hypothesis testing, topics in descriptive statistics and data analysis, regression analysis, aspects of experimental design, along with a variety of real applications. We will cover most of the material in chapters 7-14 of the text.

The computer will play a key role in the course, although no prior experience is assumed. The statistical package R will be used in the labs to analyze real data sets and conduct simulations. These concrete experiences will be a valuable complement to the lectures.