Statistics 322
Statistical Computing

Course Information

Class Meetings: T-Th 2:00-3:15, New West 110D.

Instructor: Steve Marron, Professor

Office: Phillips 307
Phone Numbers: (office) 962-2188 (home) 493-2844
FAX: 962-1279 Email: marron@stat.unc.edu

Office Hours: Anytime I am in this office is fine. Best days are M, T, Th. If I seem to be hard to find, specific arrangements can be made through e-mail, or a phone call.

Companion "Textbook": Numerical Recipes in... (FORTRAN, C, PASCAL), Cambridge University Press.

Grading: Based entirely on homework. There will be no final exam, or any type of class project. Basic Guidelines: for "reasonable work": P. For "good quality work and/or suggestions on how I can improve my computing and/or this course": H.

Homework: Assigned daily, collection for each week is due the following Thursday.

Course Goal: This course is intended to help build computational experience, as well as a set of research tools, that should be generally useful, e.g. to develop a numerical component of a dissertation. Since numerical techniques are best learned in a "hands on" way, the course will be structured to maximize student involvement in a series of examples. In addition the examples will attempt to cover an assortment of mathematical and statistical "folklore" topics that you may have missed elsewhere. The examples considered will attempt to illustrate the fact that really effective computing, and really effective statistical/mathematical analysis work hand in hand.

Computing Environment: All computing will be done in the software language MATLAB. This is available both on the Statistics Department UNIX network, and also on some PC's. MATLAB provides a "high level modern conputing environment", with a good combination of convenience, power and graphics. "Old style" softwares languages (such as FORTRAN and C) are not recommended because they require too much programming effort. The software language S is competitive in some ways, but has inferior properties for some types of large scale work, such as simulation.

WWW Access: electronic versions (either ASCII of Post Script) of all course handouts (including this one), and example MATLAB programs will be available on the WWW, on the Statistics 322 home page (reach this, using a Web browser such as Netscape, either from the Fall 1996 Schedule, or from my home page). These are also available via anonymous ftp on mickey.stat.unc.edu, in the directory /pub/papers/marron/stat322.