Seminar on Cognitive Modeling (Psychology 607)

Offered by Margaret Sereno & Doug Hintzman

Winter term, 2-4 p.m., in room 156 Straub

The aim of this seminar is to give students hands-on experience with computer modeling, and to get them to feel comfortable about using computers in formulating psychological theories. The main requirement of the course is a modeling project, appropriate to the individual's interest and level of expertise. The class will also do some background reading on computer modeling, including—but not limited to—neural nets.

The class will NOT lead students through a series of programming exercises. Rather, each participant will be expected to choose a programming project early in the term, and to be able to report on a running program by the end of the term. Appropriate projects might range from writing one's own version of a model already in the literature to creating an original model of one or more psychological phenomena. (Using someone else's program, even in an innovative way, is not an acceptable project.) Despite the title of the seminar, the project need not be "cognitive." A simulation of social interactions or neural processes, for example, might be appropriate.

Extensive programming background is not required, but students should have had a one-term programming course or self-taught equivalent, and be familiar with the basic operations of a high-level language such as Pascal, Fortran, C, or Lisp. They also must have access to a computer with an appropriate compiler.

Readings will be available in the Taylor room. Prior to the first class meeting, on Jan. 5, participants should read the following article:

Lewandowsky, S. (1993). The rewards and hazards of computer simulations. Psychological Science, 4, 236-243.