

Syllabus
Amy L. Murphy
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Vital Information:

- CSC290e, Fall 2001, MW 2-3:15, CSB 601
- Instructor: Amy Murphy, CSB 711
- Web page: <http://www.cs.rochester.edu/u/murphy/290e/>
- Office Hours: Monday 3:30-4:30pm, Thursday 11-noon, or by appointment (send email)
- email: murphy@cs.rochester.edu
- Grad TA: none
- Textbook: none. Several books on reserve in Carlson Library

Course Description

Mobility is rapidly evolving as an important issue within many fields of computer science. In many respects, mobile systems can be viewed as complex, distributed systems, but it is precisely these complexities that warrant its independent study. Low and variable bandwidth, abrupt disconnection, and disconnected operation, and new parameters such as location are just a few of the key characteristics driving current research efforts.

Grading

Projects: Projects will account for 75% of your grade in this course. There will be three small projects and one large project during the semester (exact percentages to be determined later). The three small projects will include one on standard distributed computing, one on physical mobility, and one on logical mobility. The final project will be due at the end of the semester. The subject and scope of the project will be decided between you and the professor. You will be expected to present a brief, written project proposal prior to beginning, and the final project will include a brief in class presentation as well as a write-up of the project. (Note: these written assignments are not significant enough to count toward a writing credit.)

Exams: There will be two exams, a midterm (10%) and a comprehensive final (15%).

Course Outline

- *Distributed computing.* We will briefly discuss the foundations of distributed computing in order to provide a background from which to begin to explore mobility.
- *Physical Mobility.* Topics will include technologies such as cellular telephony, IEEE 802.11 wireless WAN standard, Mobile IP, wireless ATM, mobile ad hoc networking, and others. We will also study some of the basic principles of physical mobility.
- *Logical Mobility.* Topics will include an introduction to mobile code, discussion of several mobile code/agent systems, complexities of mobile code, applications, security concerns, etc.