Objectives:
• To discuss how to design and conduct usability studies

Readings:
Shneiderman, Chapter 4, pages 123-150
Neilsen, Guerrilla HCI (http://www.useit.com/papers/guerrilla_hci.html, on web site)
Neilsen, User testing a website (http://www.useit.com/alertbox/980503.html, on web site)
National Cancer Institute, usability.gov

Classroom activities:
1. Discuss usability projects
2. Review usability outline
3. Conduct mock usability test

Outline:
I. Usability testing vs. functional testing
   Traditional SE functional testing asks if the software can perform a function
   HCI oriented usability testing asks if the user can get the software to work

II. Three + one stages of testing
   Prototyping – refine interface ideas (big issues)
   Implementation – refine actual interface (smaller issues)
   Release – acceptance testing
   Maintenance – ongoing methods of evaluation

III. How to conduct testing
   Surveys
   Walkthrough
   User testing and observation
   Interview
   Expert review
   Community process

IV. Universal issues
   Focus of study (what is being measured as related to original goals, guidelines)
   Informed consent
   Documentation of observations (notes, videotape, screen/keyboard capture)
   How controlled are variables, use of statistics, randomization
   Hallway tests vs. lab tests
   Review of supporting material (guidelines, help, training books, etc)
Is testing too late? Involving users early in the process in participatory design

V. A classic “user test”
   Pretest – survey to find out what they know, background,
   Test – give user tasks, observe/inquire about their actions and thoughts (cognitive)
   Post-test – ask them about the experience (affective as well as cognitive)

VI. Types of expert review
   • Heuristic evaluation
   • Guidelines review
   • Consistency inspection
   • Cognitive walkthrough
   • Formal usability inspection

Mock usability test activity

Tasks:
   a) find article on usability testing on Loyola library web site
   b) find book on usability testing at Loyola library (in stacks or available by loan)

   Step 1. Design test
       pretest, test, posttest survey

   Step 2. Choose subjects

   Step 3. Carry out pretest

   Step 4. Carry out test on one subject

   Step 5. Carry out test on second subject – vary method

   Step 6. Post test survey