1. **Number and title of course:** CS 160, User Interface Design and Development

2. **Course objectives:** The goal of the course is for students to learn how to design, prototype, and evaluate user interfaces using a variety of methods

3. **Topics covered:**
   - HCI Introduction
   - Brainstorming and Creativity
   - User Centered Design
   - Contextual Inquiry and Task Analysis
   - Informal Prototyping
   - Managing Teams
   - Evaluation Methods
   - Graphic Design
   - Platforms and Toolkits
   - Model-View Controller
   - Human Perception and Memory
   - Human Learning
   - Quantitative Evaluation Methods
   - Computer-Supported Cooperative Work
   - Mobile Device Interaction
   - Localization
   - Speech Interfaces
   - Personalization
   - Visualization
   - Help System Design

4. **Relationship of course to program objectives:** The primary assessment for the course is a semester-long team design project (real-world design and problem-solving experience). Teams are multidisciplinary. Students use state-of-the-art platforms and tools and technical skills are assessed through the project. Students perform user interviews and needs analysis before design begins. They conduct user studies and analyze the results throughout the design process. Communication skills in both oral and written forms are important.

5. **Prepared by:** John Canny (3/10/06)