CSC/CPE 486 Human-Computer Interaction Theory and Design

1. **CSC/CPE 486 Human-Computer Interaction Theory and Design**

2. **credit units** 4  
   **contact hours** 4

3. **Course Coordinator**: Franz Kurfess


5. a. **Course Description**: Application of the theories of human-computer interaction to the task of user-centered design. Survey of techniques for studying and involving users in different aspects of the design process, and demonstration of where and when applicable. Combining of theoretical understanding with practical experience to design solutions to problems facing interactive systems designers. 4 seminars.

   b. **Prerequisite**: CSC/CPE 484.

   c. **Required/Elective/Selective Elective for CPE, CSC, EE, SE**

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6. a. **Course Goals/Outcomes**

   The student will be able to:
   
   - Understand and analyze the fundamental concepts and strategies of user-centered design in a variety of software applications.
   - Learn how to read, understand and summarize the literature of human-computer interaction.
   - Learn how to communicate and critique user-centered aspects of a variety of software applications.
   - Apply this knowledge, understanding and analysis to a particular problem domain.
   - Learn how to evaluate the results of the project activities.

   b. **How Student Outcomes addressed**

   (“B” = Basic level, “I” = Intermediate level, “A” = Advanced level)
7. **Major Topics Covered: (number of lecture hours each)**

- Introduction to course and review of some fundamental themes in the field of human-computer interaction (HCI) (3)
- Review of HCI literature with class presentations and discussions (6)
- Human Subjects Research and Approval (3)
- Mental Models and Metaphors (3)
- Groupware and Computer-Supported Cooperative Work (3)
- Reviews of HCI research and presentations related to current themes in the class (6)
- Project discussions, reviews and presentations (6)