CS 6650 HUMAN ISSUES IN COMPUTING

Semester Hours: 3.0  
Coordinator: TBD  
Text: TBD  
Author(s): TBD  
Year: TBD  

Contact Hours: 3

SPECIFIC COURSE INFORMATION

Catalog Description:
Behavioral aspects of computing, including topics such as programming style, language features, computer-aided instruction, computer science expertise, training, computing for universal access. Usability engineering. Research methodology. Prerequisite: Admission to MS in CS program, or consent of department.

Course type: Elective

SPECIFIC COURSE GOALS

- I can develop principles about how people interact with their environment and how that interaction affects their behavior.
- I can derive performance predictions for the development of design guidelines and legally enforceable standards.

LIST OF TOPICS COVERED

- Human Factors
  - Importance to design
  - Defining and locating
  - History
  - User centered design philosophy
  - General concepts of usefulness
  - Concepts of error and failures
- User Relevant Characteristics for Design
  - Anthropometrics
  - Behavioral, cognitive, and social issues
- Psychology of a Human Operator
  - Sensory and perceptual issues
    - Introduction to the visual and auditory systems
    - Design of VR systems and alarms
Cognitive issues
  - Problem solving, learning, and memory
  - Implications of menu design
  - Implications of expert versus novice users

Language, social, and organizational issues

Design and Evaluation Methods
  - Methods for analyzing tasks
  - Methods for evaluating designs
  - Integrated cognitive frameworks, models, and guidelines
  - The design cycle
    - Analytic methods
    - Empirical methods
    - Integrated frameworks