CMPS 5443: Human Computer Interaction

Instructor: Dr Catherine Stringfellow
Office: BO128C Phone: 397-4578
Email: catherine.stringfellow@mwsu.edu
Web page: http://cs.mwsu.edu/~stringfe

Class meeting times: MWF10-11am; BO320
Office Hours: M, W 11am-12pm, 2-3pm, T R 9:30-11am, 2-3:30pm and by appt

Description of Course: This course investigates theory and practice in Human-Computer Interaction. It addresses the human, machine, algorithmic, social, aesthetic and economic constraints in designing interactive computer systems. Students will study the impact of human perception and cognition on user interface design and learn to use tools for building graphical user interfaces (GUIs). In addition, each student will design and implement a user interface.

Course Pre-requisites: CMPS 1063 or equivalent, or permission of instructor

Required Textbook: Designing the User Interface: Strategies for Effective Human-Computer Interaction, 5/E by Shneiderman, Plaisant, Cohen & Jacobs

A. EDUCATIONAL OUTCOMES
   Intended Educational Outcomes are:
   1) Students will be able to read and understand journal papers in the field of HCI
   2) Students will be able to design, implement and evaluate multimodal user interfaces
   3) Students will be aware of current developments in HCI

B. MAJOR TOPICS
   Major topics to be studied include:
   1) Concepts of universal design
   2) Human perception and cognition
   3) Assessing specific needs based on abilities of users and how to accommodate those needs
   4) Principles of user interface design
   5) Modeling users and tasks
   6) Designing and implementing graphical user interfaces (GUIs)
   7) Evaluating user interfaces
   8) Emerging interface technologies

C. INSTRUCTIONAL METHODS AND TECHNIQUES
   Instructional methods/techniques to be used will include:
   1) Lectures
   2) Homework assignments & Quizzes over the readings
   3) GUI Programming assignment
   4) Text and additional readings
   5) Class discussion
   6) Tests
D. ASSIGNMENTS FOR COURSE

Assignments for students in the course will include:
1) HCI journal papers assignment
2) Analyze and suggest improvements to existing user interfaces
3) Design and implement a graphical user interface
4) Midterm and Final

E. EVALUATION

Criteria for Success:
1) Two Exams 40%
2) Class Activities/Homework/Quizzes 10%
3) Web Usability Evaluation/Presentation 10%
4) Journal paper assignment 20%
5) Graphical User Interface Implementation 20%