Basic Course Information CS 5700

Course Title: Human Computer Interaction

Units: 3

C/S Classification #: C-2

Component (select one): Lecture

Instructional Mode (select all appropriate choices): Face-to-Face and web-assisted

Grading Basis (select one): Graded only

Repeat Basis (select one): May be taken only once

Cross listed Course (if offered with another department):

Dual-listed Course (if offered as lower/upper division or undergraduate/graduate):

Major course/Service course/GE course (select all appropriate choices): Major course

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I Catalog Description

Principles of human factors, computer technology, and their interactions. Theory and practice of user interface design and evaluation. Special topics such as graphical user interface, graphics programming, multisensory systems, and computer-supported cooperative work.

II Required Coursework and Background

Pre-requisite(s): CS 3310 or consent of instructor

III Expected Outcomes

On successful completion of this course, students will be able to:

1. Comprehend human factors in software design
2. Gain experience using GUI development processes
3. Construct usability needs analysis and create program solutions based upon that analysis

Outcomes of this course will build student capacity in each of the following areas as defined by programmatic objectives for the computer science major.

P-SLO 4. A breadth of advanced knowledge and skills in applied areas of computer science.

IV Instructional Materials

Texts may vary with instructor and over time. Examples of possible texts include:

Designing the User Interface, 5th Edition, B. Shneiderman, 2010

V Minimum Student Material

Course textbooks

VI Minimum College Facilities

Computer, Blackboard, classroom with a projection system

VII Course Outline

Evaluating interface designs

Expert reviews

Usability testing and laboratories

Survey instruments

GUIs and their components

Virtual environments

Interaction devices

Color

Balancing function and design

Information search and visualization

Accessibility

VIII Instructional Methods

Lecture

Problem-solving

Discussion

Group activities

Project-based learning

Programming projects

IX Evaluation of Outcomes

A. Student Assessment

i written assignments

ii individual programming assignments

iii oral presentation

iv group project

B. Meaningful Writing Assignment

* Students shall produce written solutions or proofs or programs to problems that are assigned as homework and/or programming projects and explain their reasoning.

C. A Matrix of Course Student Learning Outcomes vs Methods of Assessment

If the course is being evaluated for accreditation purposes, approved department accreditation assessment tools will additionally be utilized.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course Learning Outcomes | Methods of Assessment | | | |
| Written assignments | Programming assignments | Oral presentations | Group projects |
| Comprehend human factors in software design | X | x | x | x |
| Gain experience using GUI development processes | x | x |  | X |
| Construct usability needs analysis and create program solutions based upon that analysis | x | x | x | x |