Course Syllabus

Department: CS

Date: May 2012

I. Course Prefix and Number: CSC 224

Course Name: User Interface Design

Credit Hours and Contact Hours: 3 credit hours and 3 contact hours

Catalog Description including pre- and co-requisites:

This course will provide a general introduction to the theory and practice of computer user interface design. The student will learn how to create high-quality user interfaces. The emphasis will be on the design of 2D graphical user interfaces, in three environments: stand-alone, Web and mobile devices. The study of several important paradigms and principles of design and how these can be applied to the screen will be explored. This will provide a framework within which we can analyze existing user interfaces and design new ones. Prerequisite: CSC115 with a grade of C or better or equivalent experience.

Relationship to Academic Programs and Curriculum: Successful completion of this course is required for one of the advisement areas in achievement of the AAS Information Technology degree.

II. Course Outcomes and Objectives

Student Learning Outcomes:
Upon completion of the course the participant will be able to:

- Design interfaces with end users in mind
- Enumerate the important principles that underlie all good user interface design
- Perform usability testing on newly designed interfaces
- Work efficiently as part of a screen design team
- Design a user interface from inception through the beginning development stage
  - Stand-alone app, Web app, and mobile device app
- Document and present the design (to the users) during all phases of design
- Make a final presentation of the design(s) to all users (classmates)

College Learning Outcomes Addressed by the Course:

- writing
- oral communications
- reading
- mathematics
- critical thinking
- computer literacy
- ethics/values
- citizenship
- global concerns
- information resources
III. Assessment Measures (Summarize how the college and student learning outcomes will be assessed):

College and student learning outcomes will be assessed through a variety of activities that emphasize problem solving using the computer including the following:

1. Assignments:
   Design tutorials and case problems:
   Students will develop skills in computer literacy, critical thinking, information resources, global concerns and ethics/values as they learn to create screen layout designs with respect to universal standards in stand-alone, Web, and mobile apps. These design tutorials and case projects will assess the student learning outcomes stated above. In addition students will be introduced to using Web based information resources in a professional manner.

2. In-class quizzes:
   In-class quizzes will be given routinely to assess student writing capabilities. Students are expected to demonstrate college-level written text and well-reasoned arguments.

3. Final Team Project:
   Students will be required to complete a final project in a team. Well-written presentational material will be expected and a proficiency in a variety of screen design standards will be measured. A professional oral presentation of the project will be the culminating assessment activity.

IV. Instructional Materials and Methods

Types of Course Materials: Online resources the such as Joel on Software (Joel Spolsky) http://www.joelonsoftware.com/uibook/chapters/fog000000062.

Textbook: Designing Interfaces, Jenifer Tidwell

Methods of Instruction (e.g. Lecture, Lab, Seminar …):
Discussions, individual projects, team projects, demonstrations. student hands-on activities
V. General Outline of Topics Covered:

I. Introduction
II. What Users do & What Users don’t do
III. Organizing the Content
    Information Architecture and Application Structure
IV. Getting Around
    Navigation, Sign Posts
V. Organizing the Page
    Layout of Page Elements
VI. Lists of Things
VII. Doing Things
    Actions and Commands
VIII. Showing Complex Data
    Trees, Charts and Other Info Graphics
IX. Getting Input from Users
    Forms and Controls
X. Using Social Media
XI. Going Mobile
    Designing for the small screen
XII. Making it look Good
    Visual Style and Aesthetics