CSCI 4857  
User Interface Programming

Credit Hours:  3
Contact Hours:  3

Course Coordinator:  Ron Zucker

Text(s):

About Face 3E: The Essentials of Interaction Design, Cooper, A., Reiman, R., 2007  
(Required)

Catalog Description:

The concepts and programming techniques used to create applications with modern user interfaces. The course focuses on current technology as it applies to a modern operating system and software development tools. The course focuses on the user interface rather than underlying applications. Course does not count toward graduate degree requirements in computer science.

Prerequisite(s):  CSCI 2210 or CSCI 2910 or instructor’s permission

CS:  MAJOR ELECTIVE
IS:  MAJOR ELECTIVE
IT:  MAJOR ELECTIVE

Course Outcomes:

Design and create programs using the features of the graphical user interface as opposed to the character based interfaces they have seen previously. ETSU Outcomes 4, 4b, 5, 5a, 5c, CS-2, IT-3; ABET Outcomes b, c, CS-k, i, IT-k, IT-l, IT-m

Apply the basics of event-based programming, the message loop, and system message routing. ETSU Outcomes 5, IS-1b; ABET Outcomes i

Utilize a modern class library in software development (Student Outcomes 4b*, 5a*, and 5c*). ETSU Outcomes 4b, 5a, 5c; ABET Outcomes b, c, i

Major Topics:

Windows, components, and terms;

Event-driven programming;

Messages;

Graphical User Interface (GUI) API including widgets (buttons, static controls, edit boxes, list boxes, combo boxes, etc.);

Reusable graphical classes/objects;
Modal and non-modal dialog boxes;
Mouse and keyboard input;
Menus;
Model, view, controller architecture;