Model Syllabus for TCSS 452
Version: April 2012
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Catalog Description

Examines human-centered design of interactive systems. Focuses on understanding user needs, brainstorming, sketching, choosing from among design alternatives, prototyping, usability testing, representing, communicating, and critiquing designs. Prerequisite: a minimum grade of 2.0 in TCSS 143 or TINFO 300.

Preconditions

- Develop and implement programs involving the fundamental programming constructs (variables, types, expressions, assignment, simple I/O, conditional and iterative control structures, functions and parameter passing, structured decomposition).
- Develop and implement programs that use each of the following: arrays, objects, strings.
- Use a provided class, given only its API

Course Student Learning Goals (to be added to syllabus handed out to students)

- carry out user inquiry to understand human needs in particular contexts;
- construct design sketches and prototypes to manifest design ideas;
- construct narratives of use so as to envision designs in use;
- reflect on the design process to make learning visible;
- carry out a usability study to get feedback on the user experience.

CSS Degree Student Learning Outcomes that this course contributes to (to be added to syllabus handed out to students). Note that the use of the term *outcome* here instead of *goal* is simply for purposes of integration with ABET and has no other semantic import.

a. an ability to apply knowledge of computing and mathematics appropriate to the discipline;

b. an ability to analyze a problem, identify and define the computing requirements appropriate to its solution;

c. an ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;

d. an ability to function effectively on teams to accomplish a common goal;

e. an understanding of professional, ethical and social responsibilities;

f. an ability to communicate effectively with a range of audiences;

g. an ability to analyze the impact of computing on individuals, organizations and society, including ethical, legal, security and global policy issues;

i. an ability to use current techniques, skills, and tools necessary for computing practice.

UWT Student Learning Goals that this course contributes to (to be added to syllabus handed out to students)

Inquiry and Critical Thinking
Students will acquire skills and familiarity with modes of inquiry and examination from diverse disciplinary perspectives, enabling them to access, interpret, analyze, quantitatively reason, and synthesize information critically.

Civic Engagement
Students will define their roles and responsibilities as members of a broader community and develop an understanding of how they can contribute to that community for the greater good. They will have opportunities for service learning and other forms of active involvement such as undergraduate research.

Communication/Self-Expression
Students will gain experience with oral, written, symbolic and artistic forms of communication and the ability to communicate with diverse audiences. They will also have the opportunity to increase their understanding of communication through collaboration with others to solve problems or advance knowledge.