Course Instructor:

Name:
Office:
Email:
Office Hours:

A little about me...I have been a dancer for most of my life, and I still dance. As a high school student, I assisted and taught numerous dance classes, which is where I found my love for teaching. I started teaching computer science to grades 7 through 12 at the Alabama School of Fine Arts (ASFA) in 2004. I spent three incredible years at ASFA where I had the privilege of teaching fantastic individuals who taught me as much, if not more, than I taught them. I have also used my computer science degree as a project manager and software developer for Kennesaw State University where I was recently an assistant professor. I earned my PhD in Computer Science from the University of Alabama under the advisement of Dr. Jeff Gray.

Course Description:

The purpose of this course is to challenge students to improve the user experience. Students will examine existing interfaces writing their analyses as well as design their own interfaces requiring the use of design documents utilized within Software Engineering.

Major Course Activities:

- Interface Analysis: An individual assignment to undertake analysis of an existing interface. This is presented as a 1,500-2,000 word report. This report includes a user observation to be conducted on multiple users in order to provide data for analysis.
- Project Proposal: This can be an individual or group assignment. Each student/group will assemble a project proposal as well as design documents for a future project to be developed. This project incorporates multiple stages:
  - Stage One: Proposal draft
  - Stage Two: Critique
  - Stage Three: Final Proposal

Required Course Materials:

Norman, Don. The Design of Everyday Things. Basic Books, 2013. New York, NY. (DET)

Student Learning Outcomes (SLOs):

At the conclusion of this course, students will be able to:

SLO-1 Propose design approaches that are suitable to different classes of user and application
SLO-2 Identify appropriate techniques for analysis and critique of user interfaces
SLO-3 Be able to design and undertake quantitative and qualitative studies in order to improve the design of interactive systems
SLO-4 Understand the history and purpose of the features of contemporary user interfaces
SLO-5 Create a UML design document

Instructional Method and Learning Strategies:

The course will consist of lectures followed by hands-on activities to practice what was discussed in the lecture. There will be readings, quizzes on the readings, and discussions about the readings. The primary teaching style utilized will be active learning. There will be group work, independent research, problem-solving activities, and analytical writings throughout the course.

Course Outline/Schedule:

The final course outline/schedule will be posted in Moodle, but the below is a tentative schedule. The readings will consist of articles or other online material.

Date/Week	Topics	Important Dates/Activities	Instructor Notes*
8/24-8/28 Week 1	Intro to course/Expectations What is design? Discoverability	DET Ch. 1 Final project assigned	DET Ch. 1 AA Ch. 6 Discoverability Worksheet
8/31-9/4 Week 2	Theoretical Foundations of HCI: theories, models, principles, standards, guidelines Conducting User Observations	DET Ch. 2 User observation assigned	DET Ch. 2 SP Ch. 2 SP Ch. 4 HCI Foundations Worksheet
9/7-9/11 Week 3	Memory and mapping Using metaphors in coding	DET Ch. 3 Interface Analysis assigned	DET Ch. 3 SP Ch. 7 CC Ch. 2 Interface Design Worksheet
9/14-9/18 Week 4	Discoverability Interaction Design	DET Ch. 4 9/18 - User observation due	DET Ch. 4 DI Ch. 1 SP Ch. 9

Date/Week	Topics	Important Dates/Activities	Instructor Notes*
			Interaction Design Worksheet
9/21-9/25 Week 5	Human Error or Bad Design Balancing Form and Function	DET Ch. 5 Wobbrock, et al. paper (Ability-based Design)	DET Ch. 5 AA Ch. 7 SP Ch. 12, 14
9/28-10/2 Week 6	Design Thinking Prerequisites, Construction Decisions	DET Ch. 6 10/2 – Interface Analysis draft due	DET Ch. 6 SP Ch. 3 CC Ch. 3,4
10/5-10/9 Week 7	Adopting Technology Project Management Styles	DET Ch. 7 Interface analysis draft due	DET Ch. 7 DI Ch. 4
10/12-10/16 Week 8	Project Management Styles cont'd Worksheet	Reading: UML document	
10/19-10/23 Week 9	Proposal and Requirements Documents UML	10/23 - Reference Assignment due UML Assignment	
10/26-10/30 Week 10	Software Design Defensive Programming	10/30 – Final Interface Analysis due UML Assignment	CC Ch. 5 CC Ch. 8
11/2-11/6 Week 11	Variables and Data Types	UML Assignment	CC Ch. 10, 11, 12, 13
11/9-11/13 Week 12	Statements	11/13 - Draft of Final Project Due	CC Section IV Statements
11/16-11/20 Week 13	Code Improvements	11/20 - Critique of Final Project Due	CC Section V Code Improvements
11/23-11/27 Week 14	Thanksgiving Break		

Date/Week	Topics	Important Dates/Activities	Instructor Notes*
11/30-12/4

Week 15 | Final Exam Week | 12/2 – Final Project Due | |

*Materials taken from a variety of textbooks:
- DET: Design of Everyday Things, Don Norman
- AA: Accessible America: A History of Disability and Design, Bess Williamson
- SP: Designing the User Interface, Ben Shneiderman and Catherine Plaisant
- CC: Code Complete, Steve McConnell
- DI: Designing Interactions, Bill Moggridge

Course Activities, Assessments, & Interactions:

This course consists of a sequence of activities, assessments, and interactions to support you in achieving the Student Learning Outcomes (SLO) for this course. You will engage in weekly activities, discussions, research, readings, quizzes, an analysis paper, and a final project. The primary course artifacts required to achieve the Student Learning Outcomes (SLO) are described below:

Discussions
Active participation is required for this course. There will be regular discussions regarding the readings, which will come from Don Norman's *The Design of Everyday Things* or posted research papers/articles. There may also be reading quizzes or reflections posted on Moodle.

Participation
Throughout the course, there will be worksheets distributed during class for students to solidify their understanding of lectures or expand upon what was covered in the lecture. If students are not in class (either physically or remotely), they are unable to participate.

Interface Analysis
This is a major research paper with a user observation incorporated. Please take this assignment seriously.

UML Assignments
There will be 3-4 UML/Software Engineering assignments throughout the course.

Project Design
The final project is an individual or group project that requires a draft, a critique, and a final version. This project includes various components, which will be defined throughout the course.

Grading:

ACTIVITY	Weight
Discussion/Quizzes	**10%**
UML Assignments	**10%**
Interface Analysis	**25%**
Stage 1 Project Design (draft)	**20%**
Stage 2 Project Design (critique)	**10%**
Stage 3 Project Design (final)	**25%**

Grading Scale

A	93-100%	B-	80-82%	D+	68-69%
A-	90-92%	C+	78-79%	D	60-67%
B+	88-89%	C	73-77%	F	0-59%
B	83-87%	C-	70-72%		