

Course Instructor:

Name: Amber Wagner

Office: Olin 208

Email: anwagner@bsc.edu

Book an appointment: wagner-9.youcanbook.me

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
8/24-8/26 Week 1	Intro to course/Expectations What is design?	Final project assigned
8/29-9/2 Week 2	Discoverability Theoretical Foundations of HCI: theories, models, principles, standards, guidelines Conducting User Observations	DET Ch. 1 DET Ch. 2 User observation assigned
9/5-9/9 Week 3	Memory and mapping Using metaphors in coding	9/5 Monday: Labor Day Holiday 9/8 Thursday: Class online 9/7 – Last day to add a class DET Ch. 3 Interface Analysis assigned
9/12-9/16 Week 4	Discoverability Interaction Design	DET Ch. 4 9/14 – Last day to withdraw 9/18 - User observation due

Date/Week	Topics	Important Dates/Activities
9/19-9/23 Week 5	Human Error or Bad Design Balancing Form and Function	DET Ch. 5 Wobbrock, et al. paper (Ability-based Design) 9/21 – Last day to drop
9/26-9/30 Week 6	Design Thinking Prerequisites, Construction Decisions	DET Ch. 6 10/2 – Interface Analysis draft due
10/3-10/7 Week 7	Adopting Technology Project Management Styles	DET Ch. 7 Interface analysis draft due 10/6 – Fall break, no class
10/10-10/14 Week 8	Project Management Styles cont'd Worksheet	Reading: UML document 10/12 – Last day to drop with a “W”
10/17-10/21 Week 9	Proposal and Requirements Documents UML	10/23 - Reference Assignment due UML Assignment
10/24-10/28 Week 10	Software Design Defensive Programming	10/30 – Final Interface Analysis due UML Assignment
10/31-11/4 Week 11	Variables and Data Types	UML Assignment
11/7-11/11 Week 12	Statements	11/13 - Draft of Final Project Due
11/14-11/18 Week 13	Code Improvements	11/20 - Critique of Final Project Due
11/21-11/25 Week 14	Thanksgiving Break	11/23-11/25 No School
11/28-11/30 Week 15	Refactoring	11/30 – Last Day of Class 12/6 12:00PM 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.

Assignments

There will be 3-4 Software Engineering assignments and 3-4 HCI assignments throughout the course.

Project Design (Final Project)

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. A draft of the project will be submitted, classmates will critique the projects, and a final version will be submitted for grading.

Grading:

ACTIVITY	Weight
Discussion/Quizzes	10%
Assignments	15%
Interface Analysis	25%

ACTIVITY	Weight
Stage 1 Project Design (draft)	15%
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%		

Getting Started with this Course:

Moodle Learning Management System

Students are responsible for checking Moodle for course readings, assignments, and announcements. Work that is passed in late because of not checking Moodle is the responsibility of the student. You are also required to check your grades on Moodle to verify that the correct grades are recorded for your completed work.

Logging into Moodle

Birmingham-Southern College uses the Moodle Learning Management System (LMS). To get started with the course, do the following:

1. Log onto the BSC access point by going to: moodle.bsc.edu.
2. Enter your BSC username and password.
3. The Moodle dashboard will open, and your courses will be displayed in the middle of the screen.
4. Select your course to begin.
5. The course welcome page will open. Read the welcome section and follow the instructions for getting started.

You will need your BSC User Name and Password to log in to the course. If you do not have or don't know your User Name, contact the IT Help Desk at [205-226-3039](tel:205-226-3039) or helpdesk@bsc.edu.

Course & College Policies:

Attendance

Plan to attend class. If you must miss, please refer to Moodle for any missed work.

Assignments

Assignments will be due as posted on Moodle. All instructions regarding submission format will be on Moodle. Assignments not following the protocol stated on Moodle will not be graded. Late submissions will be penalized 5% per day and will not be accepted more than 3 days late.

Masking Policy

Masking is optional at the start of the term, but I reserve the right to request that we mask in class based on updates from the CDC.

Academic Integrity

Adhere to the honor code at all times: As a member of the student body of Birmingham-Southern College, I recognize my responsibility to the traditions of the institution, to my fellow students and to myself. I recognize the significance of the honor system. I pledge that I have read and understand the Constitution of the Honor Council, including the Honor Code, and agree to be bound by its provisions.

Additional information on the honor code and violations can be found in the Birmingham-Southern Student Handbook and on [the BSC website](#).

Netiquette

1. Check your email often--this is the method the instructor will use most often to communicate with you.
2. Adhere to the same standards in your digital communications as you would for traditional written language.
3. Use clear and concise language.
4. Remember that all college level communication should have correct spelling and grammar.
5. Be cautious when using humor or sarcasm as tone can be lost in an email or discussion post.
6. Using all capitals is the equivalent of SHOUTING and considered RUDE.

Student Grievance Policy

Students should follow the complaint process as outlined in the current [Birmingham-Southern College Student Handbook](#).

Academic Accessibility and Accommodations

Students with a disability that qualify under the Americans with Disabilities Act (ADA) and/or Section 504 of the Rehabilitation Act and require accommodations should be registered with BSC's Accessibility Office. If you are registered for academic accommodations, please make an appointment with me as soon as possible to discuss any accommodations that may be

necessary. During this discussion you are not expected to disclose any details concerning your disability though you may do so at your discretion. If you have a disability but have not yet registered, please contact Dr. Sandra Foster, Assistant Director of Accessibility Services and Resources, at 205-226-7909 or smfoster@bsc.edu, or visit Norton 228. Keep in mind that no accommodation will be made unless and until the instructor receives official notification from the College.

Title IX

Birmingham-Southern College is committed to the creation and maintenance of a safe learning environment for students and the campus community. The College forbids any type of sexual or gender-based misconduct among its students, faculty, and staff. The College encourages all members of the academic community to report suspected sexual and gender-based misconduct to the appropriate authorities so that it can be investigated, remedied, and eliminated. BSC forbids retaliation against any person who has opposed, reported, or participated in an investigation concerning sexual or gender-based misconduct. See the BSC Title IX website (www.bsc.edu/titleix) for more information, including an online report form. If you or a peer have experienced such misconduct, there are faculty and staff members who are trained in supporting students by answering questions and helping them navigate this process. The list of advocates can be found along with other helpful resources on the Title IX website.

BSC Resources for Writers and Readers

Located in Humanities 102, the BSC Writing Center offers in-person and virtual peer-to-peer tutoring and quiet, supportive lab space to work on writing assignments. The Center's tutors are students from a wide variety of majors on campus and have the range to address student writing needs with discipline specificity. Supervised and assisted by BSC Writing Center directors, the tutors provide one-on-one consultations for any student at any point in the writing process. The BSC Writing Center is open Sunday-Thursday 4pm-8pm. To ensure a full 30-minute tutorial time slot, students are encouraged to be mindful of assignment-heavy weeks, keep track of due dates, and visit the Writing Center at their earliest availability during open hours. Please contact Professor Laura Tolbert (writingcenter@bsc.edu) with any questions or requests for virtual appointments.

Inclement Weather

Inclement weather or other events beyond the control of the College that might cause risk or danger to students, faculty, and staff may occasionally result in changes to normal College operations, including cancellation of classes or events; the calendar schedule may be adjusted.