

# Interaction Design - 1

**ATEC 3363.001 Fall 2016**  
Wednesdays, 10 - 12:45am  
ATC Rm 2.914

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*This course is a study of interaction design for a variety of applications. You will explore principles, patterns and process for interaction design, rapid prototyping, user interface (UI) and user experience (UX) design - skills that can be applied to web publishing, mobile app development, game development, entertainment and artistic performances.*

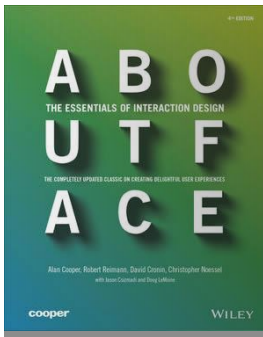
## Learning Objectives

Upon successful completion of this course, you will:

- Identify basics of both analog and digital interactions
- Apply disciplined visualization and the design process, implementing design principles
- Understand the history of interaction design and explore current trends in user experience design.

## Course Materials

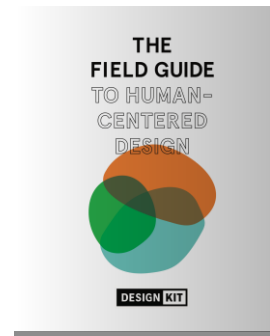
You will need the following books for this course:



**About Face: The Essentials of Interaction Design 4th Edition**

Alan Cooper, et. al.

ISBN **1118766571**



**The Field Guide to Human-Centered Design**

IDEO.org

ISBN **0991406311**  
available free at [designkit.org](http://designkit.org)

Selected excerpts from these books will be provided to you:

- *The Design of Everyday Things* by Donald Norman
- *Seductive Interaction Design* by Stephen Anderson
- *Sketching User Experiences* by Bill Buxton
- *Designing Interactions* by Bill Moggridge

## What I Expect of You

- Attend all classes
- Complete all assignments on time
- Actively participate to the class, especially in sharing discoveries with one another

## Grading

You will be evaluated on:

- **Attendance** (only one unexcused absence allowed throughout the semester)\*
- **Participation**, (actively discussing design principles, asking questions, providing examples, using a laptop or classroom computer during class other than for team projects will result in 0 participation points)
- **Assignments\*\***, and
- **Quality of work** completed from week to week.

Assignments will be discussed throughout the course, with specific requirements spelled out. See grading breakdowns at the end of this document.

## Grading Scale

A	358-400	Excellent
B	318-357	Above Average
C	278-317	Average
D	238-316	Poor
F	0-237	Failing

## Grading Weights

30%	Attendance*
30	Assignments**
10	Team Participation
30	Semester project

## Course Timeline

The following week-by-week breakdown explains the structure of the course.

The course is loosely structured in three sections, based on the About Face textbook:

Goal-Directed Design  
Weeks 1-5

Making Well-Behaved Products  
Weeks 6-10

Interaction Details  
Weeks 11-16

What is the goal-directed design process? What are other interaction design methods and approaches?

What makes a design solution good?

What design principles and idioms can I use for specific platforms: web, desktop, mobile and more?

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### Introduction: Understanding Interaction Design

Week 1  
Aug 24

What is interaction design? What is the design process?

Read for next class

Cooper: Chapter 1: A Design Process for Digital Products  
Design Kit: Mindsets (pp. 9-25)

Homework: for next class

Identify 3 favorite mobile applications and be ready to present for class critique and discussion

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### Understanding the Problem: Design Research

Week 2  
Aug 31

Research is essential to any design effort: Your solution to a problem is only as good as your definition of the problem. How can you use research to improve your next design?

In-Class Discussion: Design Research, Distinguishing an Amateur from the Professional

IDEO: Shopping Cart Project [youtu.be/tajOV-YCiel](https://youtu.be/tajOV-YCiel)

Read for next class

Cooper: Chapter 2: Understanding the Problem: Design Research  
Design Kit: Inspiration (pp. 31-44)

Homework: Complete by next class

Individual brainstorming to identify new mobile app ideas (one per student) and be ready to present to class for feedback to expand on the idea

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## Understanding the People: Personas and Goals

Week 3  
Sept 7

Personas are a powerful tool to understand users, help make design decisions and address specific user needs. How can you use them in your next design?

In-Class Discussion:

Review of research methods

Research Methods

Contextual Inquiry - Immersive, contextual method of observing and interviewing that reveals underlying work structure

Interviews - Collect firsthand personal accounts of experience, opinions, attitudes and perceptions

Read for next class

Cooper: Chapter 3: Modeling Users: Personas and Goals

Homework for next class

Develop your idea using discussed research methods to improve the app idea being considered and prepare updated presentation for the class to get their feedback

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## Defining the Problem and Setting the Vision

Week 4  
Sept 14

Informed by user feedback, how do we synthesize our knowledge and create a design solution that satisfy and inspire users, while also addressing business goals and technical constraints?

Read for next class

Cooper: Chapter 4: Setting the Vision: Scenarios and Design Requirements

Cooper: Chapter 5: Designing the Product: Framework and Refinement

Homework for next class

Expand app ideas per the requirements of desirability, possibility and value in the form of design parameters, a.k.a. framework or design specification and prepare presentation to share with the class for feedback

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## Creative Teamwork

Week 5  
Sept 21

What are the practices of a creative professional? What strategies can I employ for working together and assembling teams?

This week you assemble teams for the semester project.

Read for next class

Cooper: Chapter 6: Creative Teamwork

Homework for next class

Starting with individual app ideas, debate the merits of each and come to a consensus as to which idea you will continue to explore and develop

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## Good Product Behavior

Week 6  
Sept. 28

What are the qualities of a good digital product? What design principles can I employ to make my next design well-behaved?

Read for next class

Cooper: Chapter 7: A Basis for Good Product Behavior

Cooper: Chapter 8: Digital Etiquette

Homework for next class

Develop low-resolution concepts of your app idea and prepare for show and tell to the class for feedback and critique

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## Optimizing for Platform, Posture and Perpetual Intermediates

Week 7  
Oct. 5

How can I make the most of my interface given the user's method of interaction and knowledge-level?

Read for next class

Cooper: Chapter 9: Platform and Posture

Cooper: Chapter 10: Optimizing for Intermediates

Cooper: Chapter 11: Orchestration and Flow

Homework for next class

Develop user-journey stories to flesh out the day-in-the-life experiences and share with the class for feedback and critique

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## Interface Paradigms

Week 8  
Oct 12

What design and interface paradigms make the most sense to users?

Read for next class

Cooper: Chapter 13: Metaphors, Idioms and Affordances

Cooper: Chapter 16: Designing for Different Needs

Homework for next class

Develop user-experience/interaction flow plans and present to class for feedback and critique

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## Visual Design

Week 9  
Oct 19

What are effective visual interface strategies?

Read for next class

Cooper: Chapter 17: Integrating Visual Design

Homework for next class

Produce navigation screen art mockups to explore graphic layout, color, icons, symbols, etc. and present to class for feedback and critique

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## High Fidelity Prototyping

Week 10  
Oct 26

We use Axure to create an interactive, high-fidelity prototype.

Watch and Read for next class

Learn Axure RP: Core Training: Complete 6 Step-by-Step Tutorials [online](#)

Axure: Core Training Tutorial Videos (6 total) [online](#)

Homework for next class

Produce high fidelity prototypes of screen art, ready for user testing and develop plan for obtaining user feedback and share with class

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## Details Matter: Design for Specific Platforms

Week 11  
Nov 2

What are best practices for specific platforms (mobile, desktop, etc)?

Read for next class

Cooper: Chapter 18: Designing for the Desktop

Cooper: Chapter 19: Designing for Mobile and Other Devices

Cooper: Chapter 20: Designing for the Web

Homework for next class

TBD

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## Human Interface Guidelines

Week 12  
Nov 9

Optimizing design using human interface guidelines.

Read for next class

Up and Running with Material Design: Android Human Interface Guidelines

iOS Human Interface Guidelines

Homework for next class

TBD

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## Workshop

Week 13  
Nov 16

Project workshop

Read for next class

Cooper: Chapter 17: Integrating Visual Design

Homework for next class

TBD

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## Workshop

Week 14  
Nov 23  
Project workshop  
Homework for next class  
TBD

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## Final Presentation Preparation

Week 15  
Nov 30  
Final tweaks and team rehearsal by each team for final app presentations.

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## Final Presentations

Week 16  
Dec 7  
Your hard work is complete and ready to present  
  
Bring to Class  
Your final project kit, which includes the following:  
Overview page  
User Interface Kit  
Interactive Prototype

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### Additional Notes

**\*Attendance & Tardy Policy – Attendance is mandatory.** Lack of attendance will affect your grade because absences will not only leave holes in understanding of the lesson contents but also degrade the benefit to other students in regard to in-class discussions. Coming to class late or leaving early will also be counted as absences without prior approval from the instructor.

**\*\* Assignments not handed in on time will be docked 1.0 point (from 3.0 to 2.0)**

**Drop Procedures** (see <http://utdallas.edu/student/registrar/calendar/> )

If you are unable to complete this course, you should withdraw from it. Withdrawing from a course is a formal procedure, with a specific published deadline, which you must initiate. The instructor cannot do it for you. You must do this through the Registrar's Office.

Student AccessAbility – It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. Written notification from the Office of Student AccessAbility (OSA) is required. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at [studentaccess@utdallas.edu](mailto:studentaccess@utdallas.edu)