

Interaction Design 1

ATEC 3363.002
Wednesdays, 7 to 9:45 pm
ATEC 2.914
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Office hours TBD

Arts, Technology and Emerging Communication
The University of Texas at Dallas

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

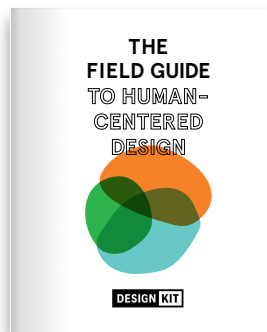
You will need the following books for this course:



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

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 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

15%	Attendance
30	Assignments
15	Quizzes
40	Semester project

Course Timeline

The following week-by-week breakdown explains the structure of the course. Complete explanations of what is due, additional reading materials, quizzes and assignment submissions are on eLearning, elearning.utdallas.edu.

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

Goal-Directed Design

Weeks 1-5

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

Making Well-Behaved Products

Weeks 6-10

What makes a design solution good?

Interaction Details

Weeks 11-16

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

Week 1
Aug 24

Introduction: Understanding Interaction Design

What is interaction design? What is the design process?

Read by Aug 31

Cooper: *Chapter 1: A Design Process for Digital Products*

Kolko: *Understanding Interaction Design* [online](#)

Design Kit: *Mindsets* (pp. 9-25) [online](#)

Week 2
Aug 31

Understanding the Problem: Design Research

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

Smart: *Rethinking the Airline Boarding Pass* bit.ly/1LL5jur

Thompson: *Boarding Pass/Fail* bit.ly/1ii2tn5

IDEO: *Shopping Cart Project* youtu.be/taJOV-YCiel

Research Methods

Screen Real Estate Usage - *Explains the usage of action, information and branding on an interface*
Content Audit - *Reviews content on a page against four criteria: friendly, clear, needed and actionable*

Gestalt Analysis - *Explains visual hierarchy, first impression and scanability*

Repertory Grid - *Uncover how users feel about a specific object on a free-flowing scale of one to 10*

Read by Sept. 7

Cooper: *Chapter 2: Understanding the Problem: Design Research*

Rohrer: *When to Use Which User-Experience Research Methods* bit.ly/1EwFa2H

Hawley: *The Repertory Grid: Eliciting User Experience Comparisons* bit.ly/1hSmkZY

Design Kit: *Inspiration* (pp. 31-44) [online](#)

Homework: Complete by Sept. 7

Explore these research methods Screen Real Estate Usage, Content Audit, Gestalt Analysis, Repertory Grid

Available online in [eLearning](#)

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 (real estate usage, content audit, Gestalt analysis, repertory grid) -
Begin work on asserting design principles.
Example of contextual inquiry

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 by Sept. 14

Cooper: Chapter 3: *Modeling Users: Personas and Goals*
Portigal: *A Framework for Interviewing*
Portigal: Key Stages of the Interview

Homework: Complete by Sept. 14

Available online in [eLearning](#)

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 by Sept. 21

Cooper: Chapter 4: *Setting the Vision: Scenarios and Design Requirements*
Cooper: Chapter 5: *Designing the Product: Framework and Refinement*

Homework: Complete by Sept. 21

Available online in [eLearning](#)

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 by Sept. 28

Cooper: Chapter 6: *Creative Teamwork*

Homework: Complete by Sept. 28

Available online in [eLearning](#)

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 by Oct. 5

Cooper: Chapter 7: *A Basis for Good Product Behavior*
Cooper: Chapter 8: *Digital Etiquette*

Homework: Complete by Oct. 5

Available online in [eLearning](#)

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 by Oct. 12

Cooper: Chapter 9: *Platform and Posture*
Cooper: Chapter 10: *Optimizing for Intermediates*
Cooper: Chapter 11: *Orchestration and Flow*

Homework: Complete by Oct. 12

Available online in [eLearning](#)

Interface Paradigms

Week 8
Oct 12

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

Read by Oct. 19

Cooper: Chapter 13: *Metaphors, Idioms and Affordances*
Cooper: Chapter 16: *Designing for Different Needs*

Homework: Complete by Oct. 19

Available online in [eLearning](#)

Visual Design

Week 9
Oct 19

What are effective visual interface strategies?

Read by Oct. 26

Cooper: Chapter 17: *Integrating Visual Design*

Homework: Complete by Oct. 26

Available online in [eLearning](#)

High Fidelity Prototyping

Week 10
Oct 26

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

Watch and Read by Nov. 2

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

Homework: Complete by Nov. 2

Available online in [eLearning](#)

Details Matter: Design for Specific Platforms

Week 11
Nov 2

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

Read by Nov. 9

Cooper: Chapter 18: *Designing for the Desktop*
Cooper: Chapter 19: *Designing for Mobile and Other Devices*
Cooper: Chapter 20: *Designing for the Web*

Homework: Complete by Nov. 9

Available online in [eLearning](#)

Human Interface Guidelines

Week 12
Nov 9

Optimizing design using human interface guidelines.

Read by Nov. 16

Up and Running with Material Design: Android Human Interface Guidelines [online](#)
iOS Human Interface Guidelines [online](#)

Homework: Complete by Nov. 16

Available online in [eLearning](#)

Workshop

Week 13
Nov 16

Project workshop.

Read by Nov. 30

Cooper: Chapter 17: Integrating Visual Design

Homework: Complete by Nov. 30

Available online in [eLearning](#)

Workshop

Week 14
Nov 30

Project workshop.

Read by Dec. 7

Cooper: Chapter 17: Integrating Visual Design

Homework: Complete by Dec. 7

Available online in [eLearning](#)

Final Presentation Preparation

Week 15
Dec 7

Project workshop.

Read by Dec. 14

Cooper: Chapter 17: Integrating Visual Design

Homework: Complete by Dec. 14

Available online in [eLearning](#)

Final Presentations

Week 16
Dec 14

Your hard work is complete and ready to present to industry judges.

Bring to Class

Your final project kit, which includes the following:
Overview page
User Interface Kit
Interactive Prototype
User-Scenario Video

Syllabus Policies

For additional information visit go.utdallas.edu/syllabus-policies.