



BIRZEIT UNIVERSITY
COMP322: Human Computer Interaction (HCI)
2nd Semester 2017/2018
Course Outline

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Course details:

Textbook:

1. Title: **Interaction Design: beyond human-computer interaction (T1)**
 - **4th Edition** (3rd edition is OK).
 - Authors: Preece, Rogers, and Sharp.
 - Companion website for the book: <http://www.id-book.com>
2. Title: **Research Methods in Human-Computer Interaction (T2)**
 - **1st Edition** (2010).
 - Authors: Lazar, Feng, and Hochheiser.

References:

- **The Design of Everyday Things**, Donald Norman (2013 Edition)
- ACM Proceedings:
 - [HCI](#)
 - [Mobile HCI](#)
 - [IDC Interaction Design and Children](#)
 - [CSCW Computer Supported Cooperative Work](#)
- SpringerLink: [HCI](#)

HCI Overview:

Human-computer interaction (HCI) involves the study, planning, design and uses of the interaction between people (users) and computers. It is often regarded as the intersection of computer science, behavioral sciences, design and several other fields of study. Attention to human-machine interaction is important because poorly designed human-machine interfaces can lead to many unexpected problems.

HCI aims to improve the interactions between users and computers by making computers more usable and receptive to users' needs. Specifically, HCI has interests in:

- Methodologies and processes for designing interfaces (i.e., given a task and a class of users, design the best possible interface within given constraints, optimizing for a desired property such as learnability or efficiency of use).
- Methods for implementing interfaces (e.g. software toolkits and libraries; efficient algorithms).
- Techniques for evaluating and comparing interfaces.
- Developing new interfaces and interaction techniques.
- Developing descriptive and predictive models and theories of interaction.

Course Objectives:

By the end of this course, the students should be able to:

- Apply the principles of HCI to the analysis and design of usable interfaces.
- Work through the process of analyzing, designing, prototyping, and testing user interfaces.
- Develop and perform effective usability tests.
- Work effectively in a team environment.

Evaluation:

- Assignments: 15%
- Project & Presentation: 20%
- Midterm Exam: 30%
- Final Exam: 35%

Course Outline:

Lectures (1.5 hours)	Reading	Topic
3	External Material	Introduction to user-centred design and usability engineering
2	T1-Chapter 1	What is interaction design?
2	T1-Chapter 2	Understanding and conceptualizing interaction
2	T1-Chapter 9	The process of interaction design
1	T1-Chapter 10	Establishing requirements
1	T1-Chapter 11	Design, prototyping, and construction
2	T1-Chapter 3	Cognitive aspects
2	T1-Chapter 4	Social interaction
Midterm Exam (30%)		
2	T1-Chapter 5	Emotional interaction
3	T1-Chapter 6	Interfaces
2	T1-Chapter 7	Data gathering
2	T1-Chapter 8	Data analysis, interpretation, and presentation
1	T2-Chapter 2	Experimental Research
1	T2-Chapter 3	Experimental Design
1	T2-Chapter 4	Statistical Analysis
6	Project Discussions & Paper Presentations	
Final Exam (35%)		

Special Regulations:

- Late Assignments will **NOT** be accepted for any reason.
- There will be **NO** makeup quizzes.
- Missing any exam without an **acceptable** excuse will result in a zero grade for that exam.
- **Attendance** is mandatory. University regulations will be strictly enforced.
- Eating and/or drinking is prohibited in classroom.



Enjoy HCI!