האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO HUMAN COMPUTER INTERACTION DESIGN - 47715

Last update 21-10-2018

HU Credits: 3

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Internet and Society

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Mt. Scopus

Course/Module Coordinator: Dr. Amnon Dekel

Coordinator Email: amnon.dekel@mail.huji.ac.il

Coordinator Office Hours: Tue, 15:00-16:00

Teaching Staff:
Dr. Amnon Dekel
Mr. Erez Reznikov

Course/Module description:
We live in an age of Machines. Some are physical and interact with us via buttons, steering wheels and pedals, while others are made of abstract logical algorithms that interact with us via sensor based input devices such as touch screens and keyboards, and physical output devices like screens and speakers. In both cases these machines can make our lives better, or, if badly designed, can result in anything from annoyance to physical injury and even death for their users. In this course we will learn about, discuss and practice the process of defining and creating systems that needs to interact with humans. We will explore some HCI history, the current state of the art, and look into how upcoming technologies might change the way we interact with our computers. In the practical sphere students will learn how to design an interactive system, prototype it, test it and finally develop a working prototype that can be presented and tested.

Course/Module aims:
To introduce the fundamental concepts in HCI
To introduce enabling technologies in HCI.
To give students the ability to plan and design an interactive system
To give students the ability to test a system interaction flow using paper prototyping
To enable students to develop a interactive prototype of a system that they have planned, designed and tested.

Learning outcomes - On successful completion of this module, students should be able to:
By the end of the course, students should be able to:

Understand key concepts in Human Computer Interaction
Understand the different HCI enabling technologies and the differences between them
Understand the differences between the main interactive computing platforms today and how they affect the design of the interface for them
Understand the user centered approach to interactive product design.
Understand how to plan and design a simple interactive interface for a computer based system
Understand and be able to design and develop a prototype of a computer based

system
Understand and be able to run a usability testing session using prototypes.
Understand the results of usability tests and be able to use the results from the tests in order to improve the usability of their applications.

Attendance requirements(%):
10%

Teaching arrangement and method of instruction: Lectures, Workshops

Course/Module Content:
PAST:
A very short history of Human Machine Interaction
A short history of Human Computer Interaction

PRESENT:
What is a Human?
What is a Computer?
What is Interaction?
What is an Interactive System?
Enabling Technologies (WIMP, Perceptual Computing, Physical Computing, AI)
What is a “good” interactive system?
Differences between interactive systems (Phones, Personal Computers, TV’s, Cars, Smart Speakers, wearables, VR, AR/MR, etc) - i.e. a one stop solution does not exist
How do we plan and design an interactive computer service?
How do we test an interactive system?
What about the experience of using an interactive system?
The development process

FUTURE
Neuro-Computing and Brain Machine Interaction
Cool technologies around the corner

Required Reading:
Ideo Design Kit [https://www.ideo.com/post/design-kit]

Moggridge, B. (2006). Designing Interactions. [http://www.designinginteractions.com/chapters]

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 40 %
Participation in Tutorials 10 %
Project work 30 %
Assignments 10 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 10 %
Peer Critique

Additional information: