

CS-486

Interaction design

Pu Pearl

Cursus	Sem.	Type
Computer science	MA2, MA4	Opt.
Cybersecurity	MA2, MA4	Opt.
Data Science	MA2, MA4	Opt.
Digital Humanities	MA2, MA4	Opt.
Robotics, Control and Intelligent Systems		Opt.
SC master EPFL	MA2, MA4	Opt.

Language of teaching	English
Credits	4
Session	Summer
Semester	Spring
Exam	During the semester
Workload	120h
Weeks	14
Hours	4 weekly
Courses	2 weekly
Exercises	1 weekly
Project	1 weekly
Number of positions	

Summary

This course focuses on goal-directed design and interaction design, two subjects treated in depth in the Cooper book (see reference below). To practice these two methods, we propose a design challenge, which is to be carried out by a team of three students.

Content**Design methods for HCI**

What is HCI: its aims and goals

Design thinking

Goal-directed Design

Mental model and different types of users

Qualitative research and user interviews

User modeling: persona and empathy diagram

Scenarios, requirements and framework design

Visual design

Information Visualization design

Basic prototyping methods for HCI

Storyboarding

Context scenario

Interactive prototype

Video prototype

Human computer interaction evaluation methods

Cognitive walkthrough

Heuristic evaluation

Evaluation with users

Keywords

Interaction design, design thinking, design for playfulness, rapid prototyping techniques, evaluation with users.

Learning Prerequisites**Required courses**

Introduction to Visual Computing

Recommended courses

Open to students enrolled in the Master and PhD programs in IC.

Important concepts to start the course

Goal-direction design

Learning Outcomes

By the end of the course, the student must be able to:

- Interview users and elicit their needs using the goal-directed design method
- Design and implement interfaces and interactions
- Project management: set objectives and devise a plan to achieve them
- Group work skills: discuss and identify roles, and assume those roles including leadership
- Communication: writing and presentation skills

Teaching methods

Lectures, exercises, hands-on practice, design review

Expected student activities

Lectures, readings, design project, quiz

Assessment methods

Group project, presentation, mid-term exam

Resources

Bibliography

About Face 3: The Essentials of Interaction Design by Alan Cooper et al. (available as e-book at NEBIS)

Ressources en bibliothèque

- [About Face 3](#)