CS486

Interaction Design – Course Syllabus

Spring Semester 2025

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Course Objectives

Interaction Design (IxD) merges computer science, cognitive psychology, and design thinking principles. Our primary resources include the required textbook, video lectures, and slides. Monday mornings are dedicated to interactive classroom activities over four hours, crucial for completing graded assignments and the capstone project. Consistent attendance during these sessions is essential.

Distribution of grades

The two-phase capstone project, a group effort involving three students, will account for 20% and 30% of your total grade, respectively. The remaining 50% will be based on individual performance, comprising five graded assignments and one design journal. Further details will be provided and explained.

Suggestions and tips:

- *A pitfall to avoid:* some students believe that because they use an interface or interact with technology on a daily basis, they can easily build an interface and design a user experience. However, it's not always easy to transfer our evaluation skills to design skills. Most people can tell what is a good meal vs a bad one. That doesn't mean all of us would know how to prepare a good meal. It requires the right training and effort to become a designer.

- *Evaluation:* some students think that as a teacher, I or my teaching assistants have the freedom to apply personal judgement or taste while grading your solutions. Design is a science and engineering matter. We teach design principles, knowledge, and methods. We use them to evaluate your work. So it's important to explain your design solutions with what we teach. More below.

- *Arguing for your design solutions*: explaining how you arrive at your solutions and sharing your point of views are just as important as presenting a solution. In many grading rubrics, we ask you to briefly show us design rationales. One of the tips for presenting a convincing argument for your solution is to discuss alternative solutions you have considered and why you have chosen the one you have presented.

- *Reading*: Besides my lectures, reading the text book (About Face by Cooper) is crucial for acquiring the design principles, knowledge, and methods. This book is a heavy book, but we only cover the most essential chapters (chapter 1-7), leaving others as a reference should you need them in the future.

- *Creation with constraints:* design is about creating a solution among thousands of options. It's overwhelming in the beginning. This is why we teach design thinking. But design is also about looking for requirements and constraints to help you reduce this space of choices. These requirements and constraints come from your users, technology feasibility, and stake holders. Pay attention to the constraints.

Required book

About Face 3 by Alan Cooper et al.

Reference book

100 Things Every Designer Needs to Know About People by Susan Weinschenk

Main Milestones

These milestones are set as guidelines. Please refer to moodle for more precise due dates.

Wednesday on week 6 and 11 before 5pm

Submit design solutions of the respective design brief I and II

Friday week 15 before 5pm
Submit the interactive prototype, visual framework, and the video

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Week 2
Graded assignment (general concepts of interaction design)

Week 4
Graded assignment (mental models and how to design for different types of users)

Week 5
Graded assignment (user research)

Week 8
Graded assignment (user modelling and behavior variables)

Week 11
Graded assignment (framework and visual design)

Word of caution

Graded Assignments: You are permitted to reference materials from the textbook and lecture notes when responding to questions in your assignments. However, the use of ChatGPT and other AI tools during this one-hour session is strictly prohibited.

Design Project: Conducting internet research and exchanging ideas are integral parts of the coursework. While you may use AI tools to enhance your writing, relying on them to compose your entire report is not permissible. All submitted content for each design challenge must be exclusively your own creation. Should you need to include quotations, ensure that you attribute them properly by citing the source. Additionally, be aware that adopting solutions from your peers constitutes plagiarism and is in strict violation of EPFL's academic integrity policies.

Violations of these guidelines will be reported to the relevant body within our section. Respecting these rules is crucial for upholding the principles of academic integrity and fairness within the EPFL community.