| Dept Number | CS 484 | Course Title | User Interface Design and Development |
|---|---|---|---|
| Semester Hours | 3 | Course Coordinator | Christos Mousas |
| Catalog Description | Problems and processes in the design of highly usable systems. Understanding stakeholders, requirements, tasks, prototyping, evaluation, guidelines and design process and heuristics. Interactive software concepts and implementation considerations. A group project is an integral part of this course. | | |

**Textbooks**

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*Designing the User Interface: Strategies for Effective Human-Computer Interaction*, Ben Shneiderman, Catherine Plaisant, Maxine Cohen, and Steven Jacobs, 5th Edition, 2009, ISBN: 9780321537355.

**References**

References to style guidelines, design notations as well as languages and tools used in project work.

**Course Learning Outcomes**

- To learn about usability and the value of involving users in an iterative incremental development process.
- To be able to apply prototyping and evaluation skills to interaction design.
- To be able to understand and apply common design notations to interaction design problems.
- To be able to apply and appreciate design heuristics and usability testing to interaction design problems.
- To gain experience and appreciation of team development work.

**Assessment of the Contribution to Student Outcomes**

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| Outcome → | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Assessed → | X | X | X | X | X | X | | X | | |

**Prerequisites by Topic**

CS 306 with a grade of *C* or better.

## Major Topics Covered in the Course

1. Introduction to Interaction and Usability {3 classes}
2. Frameworks and Styles of Interaction {3 classes}
3. Processes for Interaction Design {4 classes}
4. Discovering Requirements {4 classes}
5. User & Task Analysis {3 classes}
6. Guidelines and Standards for Interface Design {4 classes}
7. Prototyping {4 classes}
8. Evaluation and Usability Testing {3 classes}
9. Constructing User Interface Software {3 classes}
10. Design Techniques and Heuristics {3 classes}
11. Design Models and Metrics {3 classes}
12. Patterns in HCI/ID, Future Directions etc. {3 classes}