

Dept Number	CS 484	Course Title	User Interface Design and Development							
Semester Hours	3	Course Coordinator	Michael Wainer							
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										
Heim, S. 2007 The Resonant Interface: HCI Foundations for Interaction Design. Addison-Wesley Longman Publishing Co., Inc.										
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 Program Outcomes										
Outcome →	1	2	3	4	5	6	7	8	9	10
Assessed →	X	X	X	X	X	X		X		
Prerequisites by Topic										
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}

Major Assignments:

Group Design/Prototype/Evaluation Project: Students work iteratively in groups to discover and refine customer requirements through analysis, prototyping and evaluation. Design representations are constructed and evaluated.