CPCS-381 Syllabus

Catalog Description

CPCS-381 Human-Computer Interaction
Credit: 2 (Theory: 2, Lab: 0, Practical: 1)
Prerequisite: CPCS-204
Classification: Department Required

The objective of this course is to familiarize students with the skills and concepts of Human-Computer Interaction (HCI), including the understanding of user needs, interface design and prototyping, and interface evaluation. Topics include an introduction to HCI, HCI goals, cognitive and perceptual issues, HCI design, data gathering, data analysis, task description, task analysis, interaction styles, interaction frameworks, prototyping, and evaluation.

Class Schedule

Meet 50 minutes 3 times/week or 80 minutes 2 times/week

Lab/Tutorial 90 minutes 1 times/week

Textbook

Yvonne Rogers, Helen Sharp, Jenny Preece, , "Interaction Design", John Wiley & Sons; 3 edition (2011-06-07)

ISBN-13 9780470665763   **ISBN-10** 0470665769

Grade Distribution

Week	Assessment	Grade %
4	Homework Assignments 1	2.5
7	Graded Lab Work 1	2.5
8	Group Project 1	15
8	Exam 1	15
8	Homework Assignments 2	2.5
12	Group Project 2	20
12	Homework Assignments 3	2.5
12	Graded Lab Work 2	2.5
15	Homework Assignments 4	2.5
16	Comprehensive Final Exam	35

Last Articulated

May 7, 2018

Relationship to Student Outcomes

a	b	c	d	e	f	g	h	i	j	k
	x			x	x					

Course Learning Outcomes (CLO)

By completion of the course the students should be able to

1. Identify good and bad elements in interfaces. (b)
2. List and explain numbers of usability goals. (b)
3. Analyse different type of usability principles. (b)
4. **Demonstrate an understanding of usability principles in Illustrating good and bad interface (e)**
5. **Apply the model of information processing. (b)**
6. Identify the impact of human memory on interface design. (b)
7. **Identify the activities in HCI design process. (b)**
8. Differentiate between design rules, design standards, and design guidelines (b)
9. Explain the Shneiderman's eight golden rules. (b)
10. Differentiate between several data gathering methods. (b)
11. Identify the needs for a user interface. (f)
12. Differentiate between qualitative and quantitative data. (b)
13. **Use different data analysis tool to analyze gathered data. (b)**
14. Design prototypes at varying levels of fidelity, from paper prototypes to functional, interactive prototypes. (e)
15. **Employ selected evaluation methods at a basic level of competence to report errors. (b)**
16. Use task analysis methods to analyze a user goal. (b)

Coordinator(s)

Dr. Khalid Alharbi, Assistant Professor

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Topics Coverage Durations

Topics	Weeks
Interaction Design	1
Introduction & History of HCI	1
Usability principles and Human abilities	1
Predictive Evaluation and Understanding Users, Reqts. Gathering	1
Task analysis	1
Design and Graphic design	1
Handling errors & help and Prototyping & UI Software	1
Midterm Exam and Poster Session	1
Interaction Styles 1 and 2	1
User Models and Predictive Models	1
Introducing Evaluation, and evaluation framework	2
Universal design and Information Visualisation	1
Web and Embodied agents	1
Presentations	1