



Sub Committee for Curriculum Development

Course Name: Human Computer Interaction

(UG/PG): UG

Number of Credits: 2

Level: 4

Learning Objective(s):

To introduce essential knowledge and methods of designing effective and efficient systems and interactions. After completing the course, the students will be able to:

- design wireframes and prototypes for a system
- critique interface designs
- plan simple usability studies to evaluate a given design

Pedagogy:

- Lectures
- Class activities

Pre-requisites: Nil

Course Outline:

Sr. No.	Topic Name	No. Of Hrs
1	Introduction to HCI History of HCI Importance of good design Various types of interfaces Unimodal and multimodal interfaces	3
2	Design principles Reasons for deficiencies in design Fundamental principles of design <ul style="list-style-type: none">• discoverability• affordances• signifiers• constraints• mapping• conceptual model• feedback	4

3	Needfinding techniques Participant observation Interviews Other needfinding techniques - questionnaires, surveys, focus groups Personas and scenarios	5
4	User interface design and evaluation Storyboards, video prototyping Introduction to usability Components of usability <ul style="list-style-type: none"> • learnability • efficiency • memorability • errors • satisfaction Schneiderman's golden rules of interface design Introduction to wireframes and mockups Visual design – icons, colors, layout Designing for accessibility Usability testing Paper and digital prototyping Usability inspection methods Usability heuristics for user interface design	18
	Total	30

Books Recommended:

1. The Design of Everyday Things by Donald Norman
2. Usability Engineering by Jacob Nielsen
3. Designing the user interface: Strategies for Effective Human Computer Interaction by Ben Shneiderman and Catherine Plaisant
4. Human-Computer Interaction. Alan Dix, Janet Finckay, Gregory Abowd, Russell

Research Papers/Articles recommended for reading:

Suggested Evaluation Methods:

- Assignments
- Online Tests
- Written Exam

Parallel/Similar courses in the existing curriculum:

S.No.	Name of the course	Institute where it was offered

Name of Member	Ms. GayatriVenugopal			
Designation	Asst. Professor			
Org. / Inst.	SICSR			
Signature				

Name of the Expert:

Signature:

Date: