

Course Code	CSE501
Course Name	Designing Human Centred Systems
Credits	4
Course Offered to	UG/PG
Course Description	Why are things so hard to use these days? Why does not this thing I just bought work? Why is this web site so hard to use? Why are users not liking my design? Why is my app not getting popular? These are frustrations that we have all faced from systems not designed with people in mind. The question this course will focus on is: how can we design human-centered systems that people find useful and usable? This course is an introduction to designing, prototyping, and evaluating user interfaces. If you take only one course in Human-Computer Interaction, this is the course for you. This course is heavily inspired by the course that Prof. Jason Hong teaches at CMU, Designing Human-Centered Systems.

Pre-requisites		
Pre-requisite (Mandatory)	Pre-requisite (Desirable)	Pre-requisite(other)

None

*Please insert more rows if required

Post Conditions*(For suggestions on verbs please refer the second sheet)			
CO1	CO2	CO3	CO4
Students are able to understand what makes interfaces more / less usable by humans, and the science / theories of usability	Students are able to design usable interfaces (for desktop screens / touch screens / mobile phone interfaces) using established design paradigms	Students are able to build usable interfaces (for desktop screens / touch screens / mobile phone interfaces) using established design paradigms	Students are able to methodologically / scientifically evaluate the usability of a given interface (for desktop screens / touch screens / mobile phone interfaces) using quantitative and qualitative methods and identify specific scopes for improvement

Weekly Lecture Plan			
Week Number	Lecture Topic	COs Met	Assignment/Labs/Tutorial
1	Course Introduction; Design process overview		
2	Contextual Inquiry; Guest lecture	CO1,CO4	Assignment - General design flaws around
3	Task analysis; Sketching and prototyping	CO1,CO2	
4	Human factors & Mental models; Project presentation	CO2,CO4	Quiz 1
5	Low-Fidelity prototyping; Guest lecture	CO2,CO3	Project review
6	Visual design; Usability engineering	CO2, CO3	Assignment - CI, Task analysis, Sketching
7	Usability evaluation: think aloud, observing users, testing and modeling users, expert evaluations	CO3	
8	Information visualization; Guest lecture	CO2	Project review
9	HCI and mobility; HCI and security	CO1	Quiz 2
10	Project presentations	CO4	Assignment - Evaluation
11	User modeling, personalization; Guest lecture	CO3	Project review
12	Interface modalities: color, sound, etc.; the role of graphic and industrial design; Cool characteristics of a good HCI designer, user experience engineer	CO3	
13	Recent trends and happenings in HCI; Whirlwind tour of different research groups, academic conferences, and organizations in the space of HCI		

*Please insert more rows if required

Weekly Lab Plan			
Week Number	Laboratory Exercise	COs Met	Platform (Hardware/Software)

*Please insert more rows if required

Assessment Plan	
Type of Evaluation	% Contribution in Grade
Quiz	10
Assignment	13
Mid-sem	10
End-sem	15
Project	50
Class Participation	2

*Please insert more row for other type of Evaluation

Resource Material	
Type	Title
Textbook	The Design of Everyday Things. Donald A. Norman. Basic Books; 1st Basic edition (September 2002), ISBN: 0-465- 06710-7 (paperback)
Reference	
	Sketching User Experiences: Getting the Design Right and the Right Design (Interactive Technologies). Bill Buxton. Morgan Kaufmann, 1st edition (March 30, 2007), ISBN-10: 0123740371