DHANALAKSHMI SRINIVASAN
INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Anna University)
NH - 45, Trichy - Chennai Trunk Road,
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COURSE PLAN

Subject code: CS6008	**Branch/Year/Sem/Section: B.E CSE/IV/VIII**
Subject Name: HUMAN COMPUTER INTERACTION	**Batch:2016-2020**
Staff Name: SASHIKUMAR. S	**Academic year:2018-2019**

COURSE OBJECTIVE
1. Learn the foundations of Human Computer Interaction.
2. Be familiar with the design technologies for individuals and persons with disabilities.
3. Be aware of mobile HCI.
4. Learn the guidelines for user interface.

TEXT BOOK:

1. Alan Dix, Janet Finlay, Gregory Abowd, Russell Beale, "Human Computer Interaction", 3rd Edition, Pearson Education, 2004 (UNIT I , II & III).
2. Brian Fling, "Mobile Design and Development", First Edition , O"Reilly Media Inc., 2009 (UNIT –IV).
3. Bill Scott and Theresa Neil, "Designing Web Interfaces", First Edition, O"Reilly, 2009.(UNIT-V).

WEB RESOURCES

W1: https://www.4shared.com/office/Q6shTTFLba/_Human_computer_interaction_U.html

W2: https://www.4shared.com/office/U0NNeZh7ba/Mobile_Design_and_Development_.html

W3:lsisreviving.weebly.com/uploads/2/3/6/8/23689241/designing_web_interfaces_bill_scott_theresa_neil_www.ebook- dl.com_.pdf

TEACHING METHODOLOGIES:
➤ BB   - BLACK BOARD
➤ VIDEO   - VIDEO TUTORIAL
➤ PPT   - POWER POINT PRESENTATION

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CS6008	HUMAN COMPUTER INTERACTION	L T P C
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UNIT I FOUNDATIONS OF HCI 9

The Human: I/O channels – Memory – Reasoning and problem solving; The computer: Devices – Memory – processing and networks; Interaction: Models – frameworks – Ergonomics – styles – elements – interactivity- Paradigms.

UNIT II DESIGN & SOFTWARE PROCESS 9

Interactive Design basics – process – scenarios – navigation – screen design – Iteration and prototyping. HCI in software process – software life cycle – usability engineering – Prototyping in practice – design rationale. Design rules – principles, standards, guidelines, rules. Evaluation Techniques – Universal Design.

UNIT III MODELS AND THEORIES 9

Cognitive models –Socio-Organizational issues and stake holder requirements –Communication and collaboration models- Hypertext, Multimedia and WWW.

UNIT IV MOBILE HCI 9

Mobile Ecosystem: Platforms, Application frameworks- Types of Mobile Applications: Widgets, Applications, Games-Mobile Information Architecture, Mobile 2.0, Mobile Design: Elements of Mobile Design, Tools.

UNIT V WEB INTERFACE DESIGN 9

Designing Web Interfaces – Drag & Drop, Direct Selection, Contextual Tools, Overlays, Inlays and Virtual Pages, Process Flow. Case Studies.

TOTAL: 45 PERIODS

Topic No	Topic Name	Books For reference	Page No	Teaching Methodology	No of periods required	Cumulative periods
UNIT I	**FOUNDATIONS OF HCI**					**(9)**
1.	The Human: I/O channels – Memory – Reasoning and	T1	11	PPT	2	2
2.	The computer: Devices – Memory	T1	59	PPT	1	3
3.	Processing and networks	T1	69	PPT	2	5
4.	Interaction: Models – frameworks – Ergonomics	T1	123	PPT	2	7
5.	Paradigms.	T1	164	PPT	2	9

LEARNING OUTCOME:
At the end of unit , the students will be able to
Think and have an idea on Frameworks/Models

Topic No	Topic Name	Books For reference	Page No	Teaching Methodology	No of periods required	Cumulative periods
UNIT II	**DESIGN & SOFTWARE PROCESS**					**(9)**
6.	Interactive Design basics – process – scenarios	T1	191	EBook,PPT	1	10
7.	Navigation – screen design – Iteration and prototyping.	T1	215	E Book	1	11
8.	HCI in software process – software life cycle – usability engineering	T1	225	E Book	1	12
9.	Prototyping in practice – design rationale.	T1	240	PPT/BB	2	14
10.	Design rules – principles, standards, guidelines, rules.	T1	258,289	PPT/BB	2	16
11.	Evaluation Techniques	T1	318	PPT/BB	1	17
12.	Universal Design.	T1	365	PPT/BB	1	18

LEARNING OUTCOME:
At the end of unit , the students will be able to
- Understand the Lifecycle and Design the Application

Topic No	Topic Name	Books For reference	Page No	Teaching Methodology	No of periods required	Cumulative periods
UNIT – III	**MODELS AND THEORIES (9)**					
13.	Cognitive models	T1	419	PPT/BB	2	20
14.	Socio- Organizational issues and stake holder	T1	450	PPT/BB	2	22
15.	Communication and collaboration models	T1	475	PPT/BB	2	24

16.	Hypertext, Multimedia and WWW.	T1	748	PPT/BB	3	27

LEARNING OUTCOME:
At the end of unit , the students will be able to
- Have an idea on Multimedia and Worldwide Web.

UNIT IV	MOBILE HCI					(9)
17.	Mobile Ecosystem: Platforms, Application	T2	13,20	PPT/BB	2	29
18.	Frameworks- Types of Mobile Applications: Widgets, Applications, Games	T2	22,25	PPT/BB	2	31
19.	Mobile Information Architecture, Mobile 2.0	T2	89	PPT/BB	2	33
20.	Mobile Design: Elements of Mobile Design	T2	116	PPT/BB	2	35
21.	Mobile Design :Tools	T2	137	PPT/BB	1	36

LEARNING OUTCOME:
At the end of unit , the students will be able to
Segregate the Application Types

UNIT V	WEB INTERFACE DESIGN					(9)
22.	Designing Web Interfaces - Drag & Drop	T3	T3/25	PPT/BB	1	37
23.	Designing Web Interfaces - Direct Selection	T3	T3/61	PPT/BB	2	39
24.	Contextual Tools	T3	T3/79	PPT/BB	1	40
25.	Overlays	T3	T3/105	PPT/BB	1	41
26.	Inlays	T3	T3/123	PPT/BB	1	42
27.	Virtual Pages	T3	T3/137	PPT/BB	1	43
28.	Process Flow.	T3	T3/157	PPT/BB	1	44
29.	Case Studies.	E Resources	E Resources	PPT/BB	1	45

LEARNING OUTCOME:
At the end of unit , the students will be able to
Design web Interfaces.

COURSE OUTCOME

At the end of the course, the student should be able to:
Design effective dialog for HCI.
- Design effective HCI for individuals and persons with disabilities.
- Assess the importance of user feedback.
- Explain the HCI implications for designing multimedia/ ecommerce/ e-learning Web sites.
- Develop meaningful user interface.

CONTENT BEYOND THE SYLLABUS
- Lifecycle and Design the Application
- Multimedia and Worldwide Web
- web Interfaces.

CONTINUES INTERNAL ASSESSMENT DETAILS

ASSESMENT NUMBER	I	II	MODEL
TOPIC NO.(UNIT)	1-12 (1st & 2nd units)	13-21 (3rd & 4th units)	1-29 (units 1-5)

ASSIGNMENT DETAILS

ASSIGNMENT NUMBER	I	II	III
TOPIC NUMBER FOR REFERENCE	1-12 (1st & 2nd units)	13-21 (3rd & 4th units)	1-29 (units 1-5)
DEAD LINE			

ASSIGNMENT NUMBER	DESCRIPTIVE QUESTIONS/TOPIC (Minimum of 8 Pages)
I	1. I/O channels 2. Memory 3. Reasoning and problem solving
	1. Devices 2. Memory 3. processing and networks Analysis
II	1. Interactive Design basics 2. process 3. scenarios
III	1. Cognitive models 2. Socio-Organizational issues 3. stake holder requirements
	1. Communication and collaboration models 2. Hypertext 3. Multimedia
	1. WWW (World Wide Web)

PREPARED BY   **VERIFIED BY**

SASHIKUMAR. S, AP/CSE   **HOD/CSE**

APPROVED BY

PRINCIPAL