**Lecture Schedule**

**Department of Computer Science Engineering & Information Technology**

# Branch & Section : B.Tech-IV CSE-II Sem-II Regulation : R13

**Subject : Human Computer Interaction Academic Year: 2017-18**

**Name of the Faculty : Sushat Bunty Korada**

**Course Objectives**

At the end of the course, the students will be able to:

1. Think constructively about how to design and evaluate interactive technologies
2. Think analytically about how to design and evaluate interactive technologies

**Course Outcomes:**

After completing this course the student must demonstrate the knowledge and ability to:

1. Explain the capabilities of both humans and computers from the viewpoint of human information processing.
2. Describe typical human-computer interaction(HCI) models, styles, and various historic HCI paradigms.
3. Apply an interactive design process and universal design principles to designing HCI systems.
4. Describe and use HCI design principles, standards and guidelines.
5. Analyse and identify user models,user support,socio-organizational issues, and stakeholder requirements of HCI systems.
6. Discuss tasks and dialogs of relevant HCI systems based on task analysis and dialog design

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| Unit No | Topic No | Name of the Concept | No. of Classes Required |
| Unit – 1 : Introduction to HCI & Managing Design Processes |
| Unit - 1 | 1 | Usability of Interactive Systems- Introduction | 1 |
| 2 | Usability Goals and Measures | 1 |
| 3 | Usability Motivations and Universal Usability | 2 |
| 4 | Goals for our Profession | 1 |
| 5 | Organizational design to Support Usability | 1 |
| 6 | Four Pillars of Design and Development Methodologies | 2 |
| 7 | Ethnographic observation and Participatory Design | 2 |
| 8 | Scenario Development | 1 |
| 9 | Social impact Statement for Early Design Review and Legal Issues | 2 |
| 10 | Usability Testing and Laboratories | 1 |
| Total number of hours  | 14 |
| Unit – 2 : Menu Selection, Form Fill-In and Dialog Boxes |
| Unit – 2 | 1 | Introduction | 1 |
| 2 | Task-Related Menu Organization | 1 |
| 3 | Single Menus | 1 |
| 4 | Combination of Multiple Menus | 1 |
| 5 | Content Organization | 1 |
| 6 | Fast Movement through Menus | 1 |
| 7 | Data Entry with Menus | 1 |
| 8 | Form Fill-in | 1 |
| 9 | Dialog Boxes and Alternatives | 1 |
| 10 | Audio Menus and Menus for Small Displays | 1 |
| Total number of hours | 10 |
| Unit – 3 : Command and Natural Languages & Interaction Devices |
| Unit - 3 | 1 | Introduction | 1 |
| 2 | Command Organization Functionality | 1 |
| 3 | Strategies and Structure | 1 |
| 4 | Naming and Abbreviations | 1 |
| 5 | Natural Language in Computing | 1 |
| 6 | Interaction Devices-Introduction | 1 |
| 7 | Keyboards and Keypads | 1 |
| 8 | Pointing Devices | 1 |
| 9 | Speech and Auditory Interfaces | 1 |
| 10 | Displays-Small and Large | 1 |
| Total number of hours  | 10 |
| Unit – 4 : Quality of Service & Balancing Function and Fashion |
| Unit – 4 | 1 | Introduction | 1 |
| 2 | Models of Response-Time impacts | 1 |
| 3 | Expectations and Attitudes | 1 |
| 4 | User Productivity | 1 |
| 5 | Variability in Response Time and Frustrating Experiences | 2 |
| 6 | Interaction Devices-Introduction | 1 |
| 7 | Error Messages | 1 |
| 8 | Nonanthropomorphic Design and Display Design | 1 |
| 9 | Web Page Design | 1 |
| 10 | Window Design and Color | 1 |
| Total number of hours | 11 |

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| Unit – 5 : User Documentation and Online Help |
| Unit - 5 | 1 | Introduction | 1 |
| 2 | Online Vs Paper Documentation | 1 |
| 3 | Reading from Paper vs from Displays | 1 |
| 4 | Shaping the Content of the Documentation | 1 |
| 5 | Accessing the Documentation | 1 |
| 6 | Online tutorials | 1 |
| 7 | Animated Documentation | 1 |
| 8 | Online Communities for User Assistance | 1 |
| 9 | The Development Process | 1 |
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| Total number of hours  | 9 |
| Unit – 6 : Information Search & Information Visualization |
| Unit – 6 | 1 | Introduction | 1 |
| 2 | Searching in Textual Documents | 1 |
| 3 | Database Querying | 1 |
| 4 | Multimedia Document Searches | 1 |
| 5 | Advanced Filtering | 1 |
| 6 | Searching Interfaces | 1 |
| 7 | Information Visualization-Introduction | 1 |
| 8 | Data Type by Task Taxonomy | 1 |
| 9 | Challenges for Information Visualization | 1 |
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| Total number of hours | 9 |

**Overall Number of classes required: 63 Classes**

**Text Books:**

1. Designing the User Interface, Strategies for Effective Human Computer Interaction, 5ed, Ben Sheiderman, Catherine Plaisant, Maxine Cohen , Steven M. Jacobs, Pearson.
2. The Essential guide to User Interface Design, 2/e, Wilbert O Galitz, Wiley Dreamtech.

**References:**

1. Human Computer Interaction, Dan R. Olsan, Cengage, 2010.
2. Designing the User Interface, 4/e, Ben Shneiderman, PEA.
3. User Interface Design, Soren Lauesen, PEA.
4. Interaction Design, Prece, Rogers, Sharps, Wiley

Signature of Faculty