

Faculty of Computers and Information Technology

Human Computer Interaction

Information :

Course Code : DM318

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Computer Science

Area Of Study :

Apply the basics of human and computational abilities and limitations to design systems that are usable by people.
Apply the fundamental aspects of designing and evaluating interfaces.
Use appropriate HCI theories, tools and techniques to design usable interactive systems.
Practice a variety of simple methods for evaluating the quality of a user interface

Description :

This course focuses on the interaction between computer systems and the people who use them, introducing analysis and design techniques that can improve the quality of that interaction. Topics include design and evaluation of user interfaces, cognitive and social dynamics factors that affect usability, and software architecture considerations. While the emphasis is on conventional graphical and web user interfaces, alternative interface devices and technologies are also discussed.. Design guidelines, evaluation methods, participatory design, communication between users and system developers

Course outcomes :

a.Knowledge and Understanding: :

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| 1 - | Identify the basics of human and computational abilities and limitations |
| 2 - | Discuss basic theories, tools and techniques in HCI |
| 3 - | Outline the fundamental aspects of designing and evaluating interfaces |

b.Intellectual Skills: :

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| 1 - | Use a variety of simple methods for evaluating the quality of a user interface |
| 2 - | Apply appropriate HCI techniques to design systems that are usable by people |

c.Professional and Practical Skills: :

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| 1 - | Solve wide range of user interface problems using HCI concepts and principles. |
| 2 - | Construct and evaluate new solutions for user interface problems |

d.General and Transferable Skills: :

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| 1 - | Exploit a range of learning resources to solve real problem |
| 2 - | Work in a team effectively and efficiently as the team is the standard fashion in which user interface design is carried out |

ABET Course outcomes :

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|-----|---|
| 1 - | Apply the fundamental aspects of designing and evaluating interfaces |
| 2 - | Apply the basics of human and computational abilities and limitations to design systems that are usable by people |

3 -	Select the appropriate HCI theories, tools and techniques to design usable interactive systems
4 -	Practice a variety of simple methods for evaluating the quality of a user interface

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introduction to Human-Computer Interaction	4	2	2
Introduction to Human-Computer Interaction	4	2	2
Task-centered system design.	4	2	2
User-centered design and prototyping	4	2	2
User-centered design and prototyping	4	2	2
Methods for evaluation of interfaces with users.	4	2	2
Methods for evaluation of interfaces with users.	4	2	2
Psychology of everyday things.	4	2	2
Mid-Term Exam	2		
Beyond screen design	4	2	2
Graphical screen design	4	2	2
Design principles and usability heuristics.	4	2	2
HCI design standards: process-oriented standards, product-oriented standards,	4	2	2
Final Exam	2		

Teaching And Learning Methodologies :

Interactive Lectures including Discussions
Practical Lab Sessions
Self-Study (Project / Reading Materials / Online Material / Presentations)
Case Studies

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Assignments	5.00	4	
Final Exam	40.00	14	
Midterm Exam (s)	20.00	9	
Others (Participations)	5.00	1	
Quizzes	10.00	6	
Team Work Projects	20.00	12	

Course Notes :

An Electronic form of the Course Notes and all the slides of the Lectures is available on the Students Learning Management System (Moodle)
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