

1.	Name of Course					Human-Computer Interaction				
2.	Course Code					CICT3583				
3.	Name(s) of academic staff									
4.	Rationale for the inclusion of the course/module in the programme					Major This module will introduce the concepts and principles of Human-Computer Interaction to guide the development of modern, high quality user interfaces. Additionally, students will encounter advanced interaction issues which are at or close to the research edge of the subject. This will enable them to appreciate current and future directions in the subject, and to critically reflect on HCI processes and products.				
5.	Semester and Year offered					1/3				
6.	Total Student Learning Time (SLT)		Face to Face				Total Guided and Independent Learning			
	L = Lecture T = Tutorial P = Practical O= Others	L 28	T 14	P	O	Independent =70 Total =112				
7.	Credit Value					3				
8.	Prerequisite (if any)					None				
9.	Objectives: The aims of this module are to - Introduce the principles of visual information communication and fundamentals of human-computer interaction (HCI) theory and research. - Introduce the major issues and techniques in the area of human-computer interaction and how it fits into the software lifecycle - To expand the students awareness of the development in this area of computing and provide an understanding of its problems.									
10.	Learning outcomes: On successfully completing this module you will be able to - Describe and explain the major concepts, theoretical perspectives, and empirical findings in psychology in human factors theory and research. - Evaluate the impact of system design on users’ attitudes and behaviors. - Apply design and usability guidelines in the development of user interfaces. - Evaluate interfaces against an accepted set of industry norms.									
11.	Transferable Skills: - Be aware of future developments and potential problem areas related to HCI and the importance of future research in HCI. - Develop conceptual awareness of techniques and the skills to apply current approaches to interface production and evaluation. - Evaluate interfaces against an accepted set of industry norms. - ability to evaluate interfaces against an accepted set of industry norms.									

12.	Teaching-learning and assessment strategy A variety of teaching and learning strategies are used throughout the course, including: • Classroom lessons. Lectures and Power Point presentations • Tutorial sessions • brainstorming; • student-Lecturer discussion • collaborative and co-operative learning; • Independent study. Assessment strategies include the following: • Ongoing quizzes • Midterm tests • Performance Assessment (project, Assigned exercises) • Lecturer Observation																							
13.	Synopsis: This module will introduce the concepts and principles of Human-Computer Interaction to guide the development of modern, high quality user interfaces. Additionally, students will encounter advanced interaction issues which are at or close to the research edge of the subject. This will enable them to appreciate current and future directions in the subject, and to critically reflect on HCI processes and products. Advanced HCI issues will also be introduced in this module.																							
14.	Mode of Delivery: • Classroom lessons • Tutorial sessions																							
15.	Assessment Methods and Types: The assessment for this course will be based on the following: <table><tr><td>Coursework</td><td>50%</td></tr><tr><td>• Quizzes and Assignments</td><td>15%</td></tr><tr><td>• Project</td><td>15%</td></tr><tr><td>• Mid-Semester Exam</td><td>20%</td></tr><tr><td>Final Examination</td><td><u>50%</u></td></tr><tr><td></td><td>100%</td></tr></table>												Coursework	50%	• Quizzes and Assignments	15%	• Project	15%	• Mid-Semester Exam	20%	Final Examination	<u>50%</u>		100%
Coursework	50%																							
• Quizzes and Assignments	15%																							
• Project	15%																							
• Mid-Semester Exam	20%																							
Final Examination	<u>50%</u>																							
	100%																							
16.	Mapping of the course/module to the Programme Aims																							
	A1	A2	A3	A4	A5	A6	A7	A8	A9															
	3	0	2	1	2	3	2	2	0															
17.	Mapping of the course/module to the Programme Learning Outcomes																							
	LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10	LO11	LO12												
	2	0	0	1	4	0	1	2	2	1	1	0												

18.	Content outline of the course/module and the SLT per topic				
	Details	SLT			
		L	T	Indep.	Total
Topic 1	Introduction Human information processing limitations, human decision making. good and poor design, interaction design, goals of interaction design. Principles guiding well-designed human-system interaction.	2	1	5	8
Topic 2	Psychological Factors effects of interface to users. Usability and Usability Specifications, aspects of the user, affective aspects, expressive interface, user frustration, virtual characters, The user's conceptual model, Hierarchical Task Analysis and Use Cases, Cognition process, framework for cognition, mental model Human Cognition and User Psychology	4	2	10	16
Topic 3	HCI design 1 Interface metaphors, interaction paradigms, Interaction design activities and process, ways to test and observe users, identify user needs and requirements, Non-standard users, non-standard inputs, prototyping based on user centered approaches to interaction design. Lifecycle models for interactive design and HCI, task description and analysis, interaction methods (menu, command, voice, graphical etc). Evaluation framework, paradigm and techniques.	8	4	20	32
Topic 4	HCI design 2 Testing and modelling users (user testing, experiments, and predictive models). Designing for collaboration and communication Social mechanism in communication and collaboration, CSCW (email, bulletin board, video conferences, virtual collaborative environment), Groupware (time/space matrix, shared applications, synchronous and asynchronous groupware), designing collaborative technologies.	8	4	20	32
Topic 5	Computers, Human Error, and Safety Attention management, Human error identification, The “swiss cheese” model of human error	2	1	5	8
Topic 6	HCI and The internet. Hypermedia and the WWW , Internet Browser Architecture , The Document Object Model (DOM) , Event Management , Authoring (JavaScript and XML), Social networks – MySpace, Blogs, tagging, wikis, etc.	2	1	5	8
Topic 11	Advanced issues in HCI intelligent user interface, virtual reality interaction, biometrics in HCI, ubiquitous computing and HCI, Multi-modal interaction, speech and gesture interaction, assistive technology,	2	1	5	8
	Total	28	14	70	112

19.	Main references supporting the course: Helen Sharp, Yvonne Rogers, and Jenny Preece, Interaction Design: Beyond Human-Computer Interaction (2007)
	Additional references supporting the course: Ben Shneiderman, Catherine Plaisant, Maxine Cohen, Steven Jacobs, Designing the User Interface: Strategies for Effective Human-Computer Interaction (5th Edition), Published by Addison-Wesley, 2009
20.	Other additional information All materials will be available to the students online.