MODULE SPECIFICATION

Name of Module	Human Computer Interaction						
Parent School/Dept	Computer Science						
Programme(s) where module is offered	BSc Computer Science with Economics; BSc Computer Science with Business; BSc Computer Science with International Relations; BSc Computer Science with Political Science;						
Status (core, option, free choice)	option			**Pre-Requisite Modules or Qualifications**		None	
FHEQ Level	5	**Unit Value**	6 ECTS	**Module Code**	CS375	**Module coordinator**	Dr. Belma Ramić-Brkić
Term taught	Fall			**Applicable From**		2015	

Educational Aims of the Module
This module aims to introduce students to the fundamental concepts and principles of human-computer interaction (HCI). HCI is an interdisciplinary field that integrates theories and methodologies from computer science, cognitive psychology, design, and other areas. In particular, it ensures students gain knowledge of all key features and techniques essential for the design process and how these are applied to different types of systems, users and contexts. Students will carry out an individual project practically demonstrating knowledge of the theoretical underpinnings of understanding requirements, designing and evaluating interactive products, services and experiences.

Module Outline/Syllabus
PART I: Introduction Essentials of designing interactive systems, Principles of human-centred interactive design, Usability, User experience PART II: The process of interaction design Techniques for designing interactive systems; Understanding requirements, Task analysis, Design, Prototyping and Evaluation. Visual interface design and Multimodal interface design. PART III: Contexts for designing interactive systems Designing websites, Social media, Collaborative environments, Agents and avatars, Ubiquitous computing, Mobile computing, Wearable computing.

Student Engagement Hours			
Type	**Number per Term**	**Duration**	**Total Time**
Lectures	30	2 hours	60 hours
Laboratory sessions	15	2 hours	30 hours
Total Guided/Independent Learning Hours			**60**
Total Contact Hours			**90**
Total Engagement Hours			**150**

Assessment Method Summary				
Type	**Number Required**	**Duration / Length**	**Weighting**	**Timing/Submission Deadline**
Final exam	1	180 minutes	50%	End of semester
Mid-term exam	1	90 minutes	15%	Mid-semester
Project (individual)	1	3,000 words	35% A#1 (10%) A#2 (15%) A#3 (10%)	 A #1 due in Week 4 A #2 due in Week 9/10 A #3 due in Week 14

Module Outcomes		
Intended Learning Outcomes: 1. General awareness and understanding of the essentials of human computer interaction and designing interactive systems 2. Understanding of the principles and key features of the design process and how these are applied to different types of systems, users and contexts 3. Understanding of all the main techniques for understanding requirements, designing and evaluating interactive products, services and experiences. 4. Practical implementation of a design project based on the application of theoretical concepts outlined in 1-3	→	**Teaching and Learning Strategy:** 1. Lectures on core material (ILO: 1-4) 2. Lab exercises with relevant practice problems and use of software tools (ILO: 1-4) 3. Individual project assignments to integrate theoretical concepts with practical skills (ILO: 1-4) 4. Video lectures, quizzes and additional resources from the Human Computer Interaction module running on Modulera.org (ILO: 1-4) 5. Independent study (self-study engagement) based on recommended additional resources, case studies, videos, articles etc. (ILO: 1-3)
	→	**Assessment Strategy** 1. Mid-term exam (ILO: 1-2) 2. Final exam (ILO: 1-4) 3. Project (ILO:1-4)
Practical Skills 1. Ability to practically execute all the necessary steps involved in the design of an interactive product 2. Design and practical execution of techniques for understanding requirements and evaluation 3. Mastery of two software prototyping tools 4. Designing and conducting observation(s), interview(s) and surveys	→	**Teaching and Learning Strategy:** 1. Laboratory sessions with tutor-lead support (PS: 1-4) 2. Project (PS: 1-4)
	→	**Assessment Strategy** 1. Mid-term exam (PS:1, 2) 2. Final exams (PS: 1,2) 3. Project (PS: 1-4)
Transferable Skills 1. Abstract thinking and design of interactive systems 2. Communication skills: present technical solutions in both written and verbal formats 3. Ability to design and carry out a practical individual project 4. Presentation skills 5. Ability to blend multiple sources of information (participation in a Massive Online Open Module)	→	**Teaching and Learning Strategy:** 1. Laboratory sessions (TS: 1-5) 2. Project (TS: 1-5)
	→	**Assessment Strategy** 1. Project (TS: 1-5)

Key Texts and/or other learning materials

Set Text:

- Benyon, D.,(2013), *Designing Interactive Systems: A comprehensive guide to HCI, UX and interaction design*, 3rd Edition, Centre for interaction Design, Edinburgh Napier University

Supplementary materials

- Shneiderman, B., Plaisant, C., (2009), *Designing the User Interface, Strategies for effective human-computer interaction*, 5th edition, Pearson.
- Modulera (2015), [online] https://www.modulera.org/module/hci (Accessed 4th December 2015)
- Rogers, I., et al., (2011). *Interaction Design: Beyond Human-Computer Interaction,* Wiley
- Elsevier (2015) Internationl Journal of Human Computer Interaction, [online], http://www.journals.elsevier.com/international-journal-of-human-computer-studies/open-access-articles/ (Accessed 4th December 2015).
- Taylor and Francis, (2015), Journal: Human Computer Interaction, [online], http://www.tandfonline.com/action/showOpenAccess?journalCode=hhci20 (Accessed 4th December 2015).

Please note: This specification provides a concise summary of the main features of the module and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module and programme can be found in the departmental or programme handbook. The accuracy of the information contained in this document is reviewed annually by the University of Buckingham and may be checked by the Quality Assurance Agency.

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