ATTACHMENT 5.

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

T6. Course Specifications (CS)

Course Specifications

Institution Umm Al Qura University	Date April 17th, 2016
College/Department College of Computers and Information Systems/ Computer Science	

A. Course Identification and General Information

1. Course title and code: User Interface Design 14013502-3
2. Credit hours 3
3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
Computer Science
4. Name of faculty member responsible for the course Curriculum Committee
5. Level/year at which this course is offered 3rd year / level 8
6. Pre-requisites for this course (if any) 14011102-4 Object Oriented Programming
7. Co-requisites for this course (if any) N/A
8. Location if not on main campus Al-Abidiyah campus (Boys) and Al-Zaher campus (Girls), Makkah Al Mukarramah
9. Mode of Instruction (mark all that apply)

a. traditional classroom	✓	What percentage?	100
b. blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	
d. correspondence		What percentage?	
f. other		What percentage?	

Comments:

B Objectives

1. What is the main purpose for this course?

The main purpose of this course is to introduce students to the field of Human-Computer Interaction, Interaction Design and Usability. Specifically, the course provides students with a foundational understanding and practical experience on designing and evaluating usable interactive user interfaces. It will cover usability principles, design guidelines and heuristics, user-centered design and evaluation techniques, and key concepts and theories in HCI. Students who successfully complete this course will be capable of assessing and arguing the usability of a system front-end such as a mobile application or website, and designing more usable and intuitive interfaces. Course learning objectives include the following:

1. Understand the concept of Usability and design principles, and apply them to assess the usability of software user interfaces and other products.
2. Design an interaction strategy to solve a real world problem.
3. Apply user-centered design methods and techniques to design usable and useful interfaces.
4. Identify user needs and their user-interface implications.
5. Develop personas and use case scenarios for a set of user requirements and a targeted technology.
6. Design and refine low/high fidelity prototypes with the ability to justify every design decision.
7. Evaluate user-interfaces with and without users.
8. Identify and explain key HCI theories, Universal and Inclusive Design concepts.
9. Communicate effectively designed user interface and it's rational to stakeholders in a persuasive way using the developed prototype.

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

N/A

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:

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usable interactive user interfaces. It will cover usability principles, design guidelines and heuristics, user-centered design and evaluation techniques, and key concepts and theories in HCI. Students who successfully complete this course will be capable of assessing and arguing the usability of a system front-end such as a mobile application or website, and designing more usable and intuitive interfaces. Course learning objectives include the following:

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1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
Introduction to Human Computer Interaction, Interaction Design and Usability HCI History, Terminology and definitions, Norman's Design principles and action cycle	1	3
User Requirements Analysis User-centered design, Understanding users needs, context and design problem. Persona, Scenario, Task analysis	2	3
Design Conceptual and Physical design, Design principles, Interaction Styles, Design patterns	3	3
Prototyping Low-fidelity, high fidelity and The Wizards of Oz prototyping	2	3
Evaluation Techniques with/without users Cognitive Walkthrough, Usability Heuristics, Usability Testing	3	3
HCI Models and Theories: GOMS, MHP, Fitts' Law	1	3
Human Reliability and Error	1	3
Universal and Inclusive Design Accessibility, Multimodal interaction	2	3

2. Course components (total contact hours and credits per semester):						
	Lecture	Tutorial	Laboratory or Studio	Practical	Other:	Total
Contact Hours	30		30			60
Credit						

3. Additional private study/learning hours expected for students per week.	6-9

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	To design, implement a prototype and evaluate with and without users the front-end of a system.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
1.2	To be able to use the state of art user-centered design principles, techniques and tools.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
2.0	**Cognitive Skills**		
2.1	To develop basic thinking skills in creative problem solving, innovation and human-centered design.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
2.2	To develop attention to users needs, their design implications and impact on user experience.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
3.0	**Interpersonal Skills & Responsibility**		

3.1	To work effectively and collaboratively in a teamwork setting.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
3.2	To understand the designer ethical responsibility when interacting with users.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
4.0	**Communication, Information Technology, Numerical**		
4.1	To use design language to communicate effectively designed user interface and it's rational to stakeholders in a persuasive way.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
4.2	To write technical reports documenting different stages and components of the design and evaluation.	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports
5.0	**Psychomotor**		
5.1	To use different forms of technology to develop prototypes	Lecture, Practical Project, Group discussions	Quizzes, Project deliverables, Oral Presentation and Written Reports

5. Map course LOs with the program LOs. (Place course LO #s in the left column and program LO #s across the top.)

Course LOs #	**Program Learning Outcomes (Use Program LO Code #s provided in the Program Specifications)**								
	1.3	**1.4**	**2.1**	**2.2**	**3.1**	**3.2**	**4.1**	**4.2**	**5.1**
1.1	**I**								
1.2		**I**							
2.1			**I**						
2.2				**I**					
3.1					**I**				
3.2						**I**			
4.1							**I**		
4.2								**I**	
5.1									**I**

6. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (e.g. essay, test, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Class participation and quizzes	All weeks	10%
2	Initial Project Definition	2	2%

3	Project Concept Document	3	3%
4	Design Brief	7	10%
5	Prototype Presentation and Report	8	10%
6	Expert evaluation report	10	10%
7	Usability testing report	12	10%
8	Final Project Demonstration, group report and peer-assessment	15	15%
7	Final Written Exam	16	30%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

- Faculty is expected to be available 2-4 hours/week for material specific Q/A or academic advice.
- Teaching staff will meet each project team 7 times over the semester for 40 minutes to discuss progress, give feedback on the project milestone of that week or answer any questions.

  Teaching staff total availability time in hours = 40 x (# of enrolled students / [4|5]) / 60

  e.g. if the number of enrolled students is 30 students, then TA(s) is/are expected to be available 4 hours/week only in weeks where there is a project deliverable.

E Learning Resources

1. List Required Textbooks

1.1 Yvonne Rogers, Helen Sharp, Jenny Preece. Interaction Design: Beyond Human - Computer Interaction
1.2 Lukas Mathis. Designed For Use

2. List Essential References Materials (Journals, Reports, etc.)

2.1 Don Norman. The Design of Everyday Things: Revised and Expanded Edition.
2.2. Course slides and notes.
2.3 Ten Usability Heuristics for User Interface Design: https://www.nngroup.com/articles/ten-usability-heuristics/

3. List Recommended Textbooks and Reference Material (Journals, Reports, etc) 3.1 Tohidi, Maryam, et al. "Getting the right design and the design right."*Proceedings of the SIGCHI conference on Human Factors in computing systems*. ACM, 2006. 3.2 Pruitt, John, and Jonathan Grudin. "Personas: practice and theory."*Proceedings of the 2003 conference on Designing for user experiences*. ACM, 2003.
4. List Electronic Materials, Web Sites, Facebook, Twitter, etc. 4.1 Paper Prototyping Helper Kit: http://www.userfocus.co.uk/resources/prototype.html 4.2 Designing the user experience poster from UPA: http://www.mprove.de/script/00/upa/_media/upaposter_11x17.pdf
5. Other learning material such as computer-based programs/CD, professional standards or regulations and software. 5.1 Android developing studio: http://developer.android.com/develop/index.html 5.2 Android Design Principles: http://developer.android.com/design/get-started/principles.html

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.)
1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.) 1.1 Classroom & Laboratory
2. Computing resources (AV, data show, Smart Board, software, etc.) 2.1 Data show 2.2 Internet access
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list) 3.1 Android Tablets and smartphones for students to use during the semester in their Course Project.

G Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching 1.1 TA's will collect informal feedback from students through direct communication during project's group meetings. 1.2 Students self-reflection report evaluating their learning experience at the end of the semester.
2 Other Strategies for Evaluation of Teaching by the Instructor or by the Department 2.1 Instructor's evaluation of students' performance improvement throughout the course. 2.2 Instructor's reflection on samples of students project deliverables with colleagues working in the same field. 2.3 Students evaluation of the course and instructor administrated by the department at the end of the semester.
3 Processes for Improvement of Teaching 3.1 Balancing theory and practice in course material. 3.2 Break project high level requirements into deliverables collected and assessed throughout the semester. 3.3 Provide one-to-one feedback on students project deliverables throughout the semester.

4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution)
5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. As part of the preparation of the course, instructor(s) will annually: 1. Review and update the content of the course to include any significant advancement in HCI as needed. 2. Consider targeting new forms of interface technologies in the course project. 3. Incorporate any new opportunities to expose students to professional design settings or encourage their participation in a design competition. For example, visiting a nearby usability lab to see usability test tools and process in action OR aligning course design project specifications with a national or international competitions such as ACM CHI design competition.

Name of Instructor: _____

Signature: _____ Date Report Completed: _____

Name of Course Instructor _____

Program Coordinator:_____

Signature: _____ Date Received: _____