Course Specifications

Course Title:	Human Computer Interaction
Course Code:	ICS 221
Program:	Computer Science and Information
Department:	Computer Science and Information
College:	College of Science at Az Zulfi
Institution:	Majmaah university

Table of Contents

A. Course Identification

1. Credit hours:3
2. Course type **a.** University ☐ College ☐ Department ☑ Others ☐ **b.** Required ☐ Elective ☐
3. Level/year at which this course is offered: **4th level**
4. Pre-requisites for this course (if any)**:** **Object Oriented Programming ICS 211**
5. Co-requisites for this course (if any)**: Nil**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	48	80%
2	**Blended**	6	10%
3	**E-learning**	6	10%
4	**Correspondence**		
5	**Other**		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	30
2	**Laboratory/Studio**	30
3	**Tutorial**	
4	**Others** (specify)	
	Total	60
Other Learning Hours*		
1	**Study**	
2	**Assignments**	
3	**Library**	
4	**Projects/Research Essays/Theses**	
5	**Others** (specify)	
	Total	

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

HCI Foundations

- Contexts for HCI (anything with a user interface, e.g., webpage, business applications, etc.)
- Processes for user-centered development, e.g., early focus on users, empirical testing, iterative design
- Different measures for evaluation, e.g., utility, efficiency, learnability, user satisfaction

Designing Interaction

- Principles of graphical user interfaces (GUIs)
- Elements of visual design (layout, color, fonts, labeling)
- Handling human/system failure
- User interface standards

Programming Interactive Systems

- Interaction Design Patterns: visual hierarchy, navigational distance
- Event management and user interaction
- Data-driven applications (database-backed web pages)

User-Centered Design & Testing

- Approaches to, and characteristics of, the design process
- Techniques for gathering requirements, e.g., interviews, surveys, ethnographic and contextual enquiry

New Interactive Technologies

- Choosing interaction styles and interaction techniques
- Representing information to users: navigation, representation, manipulation
- Approaches to design, implementation and evaluation of non-mouse interaction.

2. Course Main Objective

1. Acquire the fundamentals of Human-Computer Interaction.
2. Develop interactive UI evaluation skills.
3. Develop a toolbox of proper design guidelines.
4. Acquire GUI programming skills.
5. Learn a variety of interface evaluation techniques

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge:**	
1.1	explain why it is important to design Interactive products that are usable	.a1
1.2	gain knowledge on the interplay between humans, tasks, technology, and contexts	.a2
1.3	gain knowledge on important human factors that affect human-computer interactions	.a2
1...		
2	**Skills :**	
2.1	be able to conduct task analysis within contexts	.b1
2.2	be able to apply HCI principles, guidelines, methods, and techniques for human-centered information systems development	.b2

CLOs		Aligned PLOs
2.3		
2...		
3	**Competence:**	
3.1	be able to conduct HCI evaluations and usability studies	.c1
3.2	be able to critique HCI designs of others	.c3
3.3	Illustrate and use the HCI technologies effectively	.c3
3...		

C. Course Content

No	List of Topics	Contact Hours
1	Brief history of HCI, What is Interaction Design and Usability?	6
2	UI Design Paradigms	6
3	Human Factors Perspective- The User Profile	6
4	The computer aspect of Human Computer Interaction, design principles	6
5	User interface design Scenario Based Design and Heuristic Evaluation	6
6	Process of interaction design, Design Guidelines for Menus, Fill-in forms, and Commands	6
7	User modeling and the user profile and Adaptive interfaces, Evaluating Usability- web usability	6
8	Evaluating usability, Predictive and interpretive evaluation	3
9		
Total		45

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	explain why it is important to design Interactive products that are usable	Lectures. Lab demonstrations. Case studies. Individual presentations.	Written Exam Homework assignments Lab assignments Class Activities Quizzes
1.2	gain knowledge on the interplay between humans, tasks, technology, and contexts		
…	gain knowledge on important human factors that affect human-computer interactions		
2.0	**Skills**		
2.1	be able to conduct task analysis within contexts	Lectures. Lab	Written Exam Homework

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
		Case studies. Individual presentations. Brainstorming.	assignments Lab assignments Class Activities Quizzes
2.2	. be able to apply HCI principles, guidelines, methods, and techniques for human-centered information systems development		
2.3	. be able to conduct HCI evaluations and usability studies		
3.0	**Competence**		
3.1	Illustrate and use the HCI technologies effectively	Lectures. Lab Case studies. group discussions. Brainstorming. Individual Presentations.	Written Exam Homework assignments Lab assignments Class Activities Quizzes
3.2			
…			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	First written mid-term exam	6	15%
2	Second written mid-term exam	12	15%
3	Presentation, class activities, and group discussion	Every week	10%
4	Homework assignments	After Every chapter	10%
5	Implementation of presented programs	Every two weeks	10%
6	Final written exam	16	40%
7			
8			

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :
Office hours - Office call – Email - Mobile:

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	David Barnes,Object-Oriented Programming with Java: An Introduction 1st Edition, Prentice Hall, January 28, 2000
Essential References Materials	**Poo**, Danny C.C., **Kiong**, Derek B.K, Object-Oriented Programming and Java, Springer, 2008
Electronic Materials	Determines as the course is going on
Other Learning Materials	Video and presentation

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classroom and Lab, as those that are available at college of science at AzZulfi.
Technology Resources (AV, data show, Smart Board, software, etc.)	Smart Board - data show
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	A/N

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
course evaluation	Student-faculty management meeting	Questionnaires
Evaluation of Teaching	Program/Department Instructor	Discussion within the staff members teaching the course Departmental internal review of the course.

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	
Reference No.	
Date	