

Course Specifications

Kingdom of Saudi Arabia

The National Commission for Academic Accreditation & Assessment

Computing Department, Community College Dammam University of Dammam

Course Specifications (CS)

Human Computer Interaction

IT130





Human Computer Interaction

Course Specifications

Institution: University of Dammam Date of Report

College/Department: Dammam-Community College / Computer Science Department

A. Course Identification and General Information

| 1. Course title and code: Human Computer Interaction (IT130) | | | | |
|---|--|--|--|--|
| 2. Credit hours: 3 (3 Theoretical) | | | | |
| 3. Program(s) in which the course is offered.(If general elective available in many programs indicate this rather than list programs)Information technology track | | | | |
| 4. Name of faculty member responsible | e for the course | | | |
| 5. Level/year at which this course is offe | fered: first level | | | |
| 6. Pre-requisites for this course (if any): | 6. Pre-requisites for this course (if any): None | | | |
| 7. Co-requisites for this course (if any): | | | | |
| 8. Location if not on main campus | | | | |
| 9. Mode of Instruction (mark all that app | 9. Mode of Instruction (mark all that apply) | | | |
| a. Traditional classroom | \checkmark What percentage? $\frac{\%80}{}$ | | | |
| b. Blended (traditional and online) | What percentage? | | | |
| c. e-learning | ✓ What percentage? $\%20$ | | | |
| d. Correspondence | What percentage? | | | |
| f. Other | What percentage? | | | |
| Comments: | | | | |





B. Objectives

Upon completion of this course the student should be able to:

- 1. Understand general design principles underlying Human computer interface.
- 2. Be aware of different styles of interaction with a software system.
- 3. Explain and apply different styles of information presentation and know when graphical presentation is appropriate.
- 4. Understand some fundamentals of the design of user support embedded in Software.
- 5. Define usability attributes.
- 6. Use Simple approaches to system evaluation.

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)

C. Course Description (Note: General description in the form to be used for the Bulletin or handbook should be attached)

The course focus on giving advice on human factors and key issues underlying the iterative process of user interface design, an effective development approach and technology fundamental to user interface implementation.

| 1. Topics to be Covered | | | | |
|--|---|------------------|--|--|
| List of Topics | | Contact Hours | | |
| 1. Fundamental principles of human-computer interaction. | 1 | 3T | | |
| 2. Human interaction with interfaces. | 1 | 3T | | |
| 3. Interaction design basics | 1 | 3T | | |
| 4. HCI in the software process | 2 | 6T | | |
| 5. Design rules | 2 | 6T | | |
| 6. Evaluation Techniques | 2 | 6T | | |
| 7. Universal design | 2 | 6T | | |
| 8. User support | 2 | 6T | | |
| 9. Task analysis | 2 | 6T | | |

| 2. Course components (total contact hours and credits per semester): | | | | | | |
|--|---------|----------|------------|-----------|--------|-------|
| | Lecture | Tutorial | Laboratory | Practical | Other: | Total |
| Contact Hours | 45 | | | | | 45 |
| Credit | 45 | | | | | 45 |

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

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



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| | NQF Learning Domains And Course Learning Outcomes | Course Teaching Strategies | Course Assessment Methods | | | |
|------------|--|---|------------------------------------|--|--|--|
| 1.0 | Knowledge | | | | | |
| 1.1 | Discuss why human-centered software development is important and how it relates to HCI | Lectures, Class discussions, Presentations | Major Exam, Presentation | | | |
| 1.2 | Understand that there are common approaches to design problems, and be able to explain the importance of model- view controller to GUI programming. | | | | | |
| 2.0 | Cognitive Skills | | | | | |
| 2.1 | Use conceptual vocabulary for analyzing human-interaction with software | Lectures, Class discussions, Programming, Group | - Major Exam, Project presentation | | | |
| 2.2 | Use GUI programming concepts: event handling, constraint-based layout management, etc. | advising and mentoring | | | | |
| 3.0 | Interpersonal Skills & Responsibility | | | | | |
| 3.1 | Create and conduct a simple usability test for existing software application. | Group advising and mentoring | Major Exam, Case Analysis | | | |
| 3.2 | Identify commonalities and differences in UIs across different platforms. | | | | | |
| 4.0 | Communication, Information Technology, Numerical | | | | | |
| 4.1 | Demonstrate capacities of working in a team or a group. | Group collaboration | Student Presentation | | | |
| 4.2 | Demonstrate effective use of written and oral communication skills. | | | | | |
| 5.0 | Psychomotor | | | | | |
| 5.1 5.2 | N/A | N/A | N/A | | | |





5. Course Learning Outcomes Mapping Matrix Identify on the table below the Course Outcomes and Relationship to PLOs Course Learning Outcomes

| Course Learning Outcomes | Program Learning Outcomes | | | |
|--|---------------------------|--|--|--|
| 1. Knowledge | | | | |
| 1.1 | 1.1 | | | |
| 1.2 | 1.2 | | | |
| 2. Cognitive skills | | | | |
| 2.1 | 2.3 | | | |
| 2.2 | 2.1, 2.2 | | | |
| 3. Interpersonal Skills and responsibility | | | | |
| 3.1 | 3.1, 3.2 | | | |
| 3.2 | 3.3 | | | |
| 4. Communication IT and Numeral Skills | | | | |
| 4.1 | 4.2, 4.3 | | | |
| 4.2 | 4.1 | | | |
| 5. Psychomotor Skills | | | | |
| 5.1 | N/A | | | |

| 6. 5 | 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 | Quiz | 3 | %5 | | |
| 2 | First midterm | 6 | %15 | | |
| 3 | Quiz | 9 | %5 | | |
| 4 | Second midterm | 12 | %15 | | |
| 5 | Project | 13 | %10 | | |
| 6 | Attendance/Participation | All weeks | %10 | | |
| 7 | Final | 17 | %40 | | |

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)

• Each group of students is assigned to a member of staff who will be available for help and academic guidance office hours at specific 2 hours on daily basis.

E. Learning Resources

1. List Required Textbooks

• Designing the User Interface: Strategies for Effective Human- Computer Interaction By Ben Shneiderman, fifth edition, Addisoon Wesley, 2010.

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

• Human Computer Interaction – Developing Effective Organizational Information Systems. By Dov Te'eni, Jane Carey and Ping Zhang, first edition, John Wiley & Sons, Inc. 2006.





3. List Recommended Textbooks and Reference Material (Journals, Reports, etc)

4. List Electronic Materials (eg. Web Sites, Social Media, Blackboard, etc.)Blackboard and Social Media

5. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

• CDs accompanied with the text book, power point lectures and essential references

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.) Classrooms:

- Furnished with a large central table or multiple small tables that can be grouped into one central table
- Designed for up to 25 students
- Size the room allowing 1sq meter per seat

2. Computing resources (AV, data show, Smart Board, software, etc.)

• Smart Board, projector, internet, and whiteboard.

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

• No

G. Course Evaluation and Improvement Processes

1 Strategies for Obtaining Student Feedback on Effectiveness of Teaching:

- Student questionnaires to be assessed by independent body.
- Assessment of course teaching strategies by independent body.
- 2 Other Strategies for Evaluation of Teaching by the Program/Department Instructor:
 - Student questionnaires to be assessed by department.

3 Processes for Improvement of Teaching:

- Attending workshop, reading books, and the searching for e-resources.
- Revision of course contents, course specifications, and strategies every 5 years.
- 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)
 - Check marking by an independent member of staff of a sample of student work.
 - Periodic exchange and remarking of a sample of assignments with a member of staff in another institution

5 Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.

- Reviewing student's feedback.
- Update text books.
- Consulting other top universities course specifications and contents.

