

King Fahd University of Petroleum and Minerals

Department of Information and Computer Science

Semester (172)

SWE 312 User Interface Design (3-0-3)

1. Instructor

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Office Hours: Sunday and Tuesday: 9:00 to 10:00
Tuesday: 10:00 to 11:00
Also, by appointment

2. Course

Catalogue Description

Study of both theoretical and practical issues in human-computer interfaces. User interface design process. Usability engineering. Development, programming, and evaluating interface designs. Design of windows, and menus. Commands and natural languages I/O. Visual prototyping. User manuals, online help and tutorials. Students participate in a group project on software user interface design.

Textbook

“Designing the User Interface” by Ben Shneiderman and Catherine Plaisant, Fifth Edition, Addison-Wesley, 2010.

References

- “User Interface Design and Evaluation” by D. Stone, C. Jarrett, M. Woodroffe and S. Minocha, Elsevier, ISBN 978-0-12-088436-0.
- “About Face: The Essentials of Interaction Design”, 3rd Edition, by A. Cooper, R. Reimann and D. Cronin, Wesley, 2007, ISBN 978-0-470-08411-3.

Course Objectives

The course objectives are to

1. Introduce fundamental concepts of design, implementation, and evaluation of user interface.
2. Expose students to the state of the art user interface designs.

Relationship of Course Learning Outcomes

Upon completion of this course, students will have the ability to:

1. Create user interface designs using the components of different interaction styles.
2. Evaluate user interfaces for usability.
3. Follow usability engineering principles while designing user interfaces.
4. Use different software tools for visual prototyping

5. Demonstrate a prototype of a project.
6. Create different types of manuals such as: user Manuals, Online Help and Tutorials
7. Work as a team leader and a member of a team.

Topics Covered/ Course Outline

- Usability of Interactive Systems
- User and task analysis
- Guidelines, Principles, and Theories
- Managing Design Processes
- Evaluating Interface Designs
- Direct Manipulation and Virtual Environment
- Menu Selection, Form Fill in, and Dialog Boxes
- Collaboration
- User Manuals, Online Help and Tutorials
- Misc topics

Grading

Attendance and Participation	3%
Assignments	15%
Quiz	3%
Project	20%
Mid Term Exam	29% (Week 7 or 8)
Final Exam	30% (as per schedule)

3. General Policies

Attendance

- Regular attendance is the university requirement. Attendance will be taken in the beginning of every class.
- Whenever the number of unexcused absences exceeds **20%** of the held classes, the grade DN will be reported without any formal warning.

Work Submission

- The home work can be submitted in a class on the due date.
- Any late submission will not be accepted.

Class Discussion

- Participation in class discussion is very much encouraged. Asking questions during lectures helps both the instructor and the student. The instructor gets the feedback and the student most likely gets the point clarified.

Grading Issues

- All the grading issues must be resolved within five working days after the return of graded material.
- Exam grades will be submitted a week after the exam date.
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Final Exam

- Final exam will be selective comprehensive.

Make Ups

- No make up exams will be given.

Good luck and best wishes.