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| **C:\Users\ashkanani\AppData\Local\Microsoft\Windows\INetCache\Content.Word\AACSB-logo-accredited-vert-color-RGB.JPG** | Kuwait University  College of Business Administration  Information Systems and Operations Management Department |  |

**Course Syllabus**

**ISOM 454: Introduction to Human-Computer Interaction**

(Spring 2024)

Dr. Salman Aljazzaf

**Lecture Time** Sun, Tue, Thu (12:00 – 12:50 PM)

**Classroom** C-2-1003 (CBA South Building, Second Floor, Zone C)

**Contact Information**

**Email** [salman.aljazzaf@ku.edu.kw](mailto:salman.aljazzaf@ku.edu.kw)

**Office** Room # B-2-1022 (CBA South Building, 2nd Floor, ISOM Department)

**Office Hours** Tue and Thu (11:00– 11:50 AM) or by appointment

**Textbook** B. Shneiderman, C. Plaisant, M. Cohen, S. Jacobs, N. Elmqvist, N. Diakopoulos, ***Designing the User Interface: Strategies for Effective Human-Computer Interaction***, 6th Edition, Pearson, 2017.

**Other Material** Additional material such as lecture slides, case studies, articles, and assignments will be posted on the course websites.

**Course Website** Microsoft Teams (for announcements and course material)

[Moodle](https://moodle.ku.edu.kw) (for assignments)

**Course Description:**

This course introduces students to fundamental concepts and challenges pertinent to human-computer interaction (HCI). Students will learn the importance of user's experience and human-related factors in the design and use of effective information systems. Students will also learn how HCI integrates concepts from different fields (e.g., cognitive psychology, design, computer science, etc.) to identify and understand human factors that influence systems design, accessibility, usability, and acceptance. Moreover, students will be introduced to user-centered design methods, techniques, and tools that could be used to design, evaluate, and choose effective human-computer interfaces.

**Course Learning Objectives (CLOs)**

Upon successful completion of the course, students will be able to:

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| **CLO1.** | Design, implement and evaluate effective computer interfaces [LG5]. |
| **CLO2.** | Understand the concepts of user differences, user experience and collaboration as well as how to design contextually. |
| **CLO3.** | Understand the basic cognitive psychology issues involved in HCI. |
| **CLO4.** | Interact with the software design process in order to create computer interfaces [LG5]. |
| **CLO5.** | Understand the role of theory and frameworks in HCI. |
| **CLO6.** | Apply contemporary techniques to evaluate computer interfaces [LG2]. |

**CLO Mapping to CBA Skill Based Competency Goals[[1]](#footnote-1)**

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| CLO | Competency Goal | | | | |
| Analytical | Communication | Information Technology | Business Ethics |
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| 2 |  |  | I | R |
| 3 |  |  |  | I |
| 4 |  |  | I |  |
| 5 |  |  | I |  |
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# Type of Emphases:

* **(I)ntroduce:** Students will be introduced to the skill and their grasp of it assessed in the course.
* **(A)pply:** The course will not cover the skill. Students should have a high-level grasp of the skill and are required to apply it in the course.
* **(R)einforce:** Students should have an introductory-level grasp of the skill and the course will improve their mastery to a higher level.

**Course Outline**

| **Unit** | **Key Topics** | **Resources** |
| --- | --- | --- |
| **Usability of Interactive Systems** | Introduction, Usability Goals and Measures, Usability Motivations, Goals for HCI Profession | Chapter 1 |
| **Universal Usability** | Variations in Physical Abilities, Diverse Cognitive and Perceptual Abilities, Personality Differences, Cultural and International Diversity, Users with Disabilities, Older Adult Users, Children, Accommodating Hardware and Software Diversity | Chapter 2 |
| **Guidelines, Principles, and Theories** | Guidelines, Principles, Theories | Chapter 3 |
| **Design** | Organizational Support for Design, Design Process, Design Frameworks, Design Methods, Design Tools and Practices, Social Impact Analysis, Legal Issues | Chapter 4 |
| **Evaluation and the User Experience** | Expert Reviews and Heuristics, Usability Testing, Survey Instruments, Acceptance Tests, Evaluation during Active Use and Beyond, Controlled Psychologically Oriented Experiments | Chapter 5 |
| **Design Case Studies** | Two or Three case studies. | Chapter 6 |
| **Fluid Navigation** | Navigation by Selection, Small Displays, Content Organization, Audio Menus, Form Fill-in and Dialog Boxes | Chapter 8 |
| **Advancing the User Experience** | Display Design, View Management, Animation, Webpage Design, Color, Nonanthropomorphic Design, Error Messages | Chapter 12 |
| **Societal and Individual Impact of User Interfaces** | Future Interfaces and Grand Challenges, Ten Plagues of the Information Age | Afterword |

**Grading and Course Requirements**

* Students must check the course websites for class information regularly and make sure push notifications are enabled. You are responsible for any information posted.
* All dates (except for the final) may change due to class circumstances and holidays. Always check the course website for the latest version of the syllabus.

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| **Weight** | **Category** | **Description** |
| **30%** | **Quizzes** | Four quizzes. The quiz with the lowest grade will be dropped. Dates and details will be announced later. |
| **30%** | **Group Project** | The project consists of six deliverables (milestones). Details are provided below. |
| **40%** | **Final Exam** | Date/Time: Tuesday 20/5/2025 (8:00 AM). |
| **100%** | **TOTAL** |  |

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| **Grade Distribution**   |  |  | | --- | --- | | **Grade** | **Range** | | A | ≥ 95 | | A- | ≥ 90 and < 95 | | B+ | ≥ 87 and < 90 | | B | ≥ 83 and < 87 | | B- | ≥ 80 and < 83 | | C+ | ≥ 77 and < 80 | | C | ≥ 73 and < 77 | | C- | ≥ 70 and < 73 | | D+ | ≥ 65 and < 70 | | D | ≥ 60 and < 65 | | F | < 60 | | **Important Dates**   |  |  | | --- | --- | | **Date** | **Event** | | TBD | Quizzes | | TBD | Project Deliverables | | Thursday 15/5/2025 | Last day of classes | | Tuesday 20/5/2025 (8:00 AM) | Final exam | |

**Quizzes**

Quizzes will be given at the beginning of class. The study material and quiz dates will be announced later. Quiz questions are a good reflection of what the final exam questions will look like. I will drop the lowest quiz score you get from your total quizzes grade. The total quizzes grade is worth 30% of your final grade. The quiz dates will be announced later.

**Final Exam**

The final exam is worth 40% of your final grade. Please be advised that no test banks will be used in the development of the final exam. If you have a test bank, you can use it as a personal evaluation of your learning and in solving homework. Do not rely on it to prepare for the exams.

**Identification**: You must bring and display a valid Kuwait University student ID to the examinations.

**Late Arrival**: If you arrive late for an examination, you will be given the remaining amount of time to complete your examination. However, after the first student hands in her/his examination, late students cannot start the examination. These late students will receive a zero grade in the final exam.

**Questions during the examination**: You are not allowed to ask questions about the exam content during the examination, unless you feel that there is a typographical error. Reading and understanding the question is part of the exam. If you need to make any assumptions, then make sure to clearly write those assumptions in your response.

**Note:** Working on your examination after time has already ended is not allowed and will lead to deduction of points from your exam grade.

**Group Project**

The course includes a group assignment that is worth 30%. The objective of this project is to allow students to apply conceptual and methodological tools learnt in class to design, implement, and evaluate user interface designs. Students will be asked to form groups of four members, choose a specific electronic system, design its user interface, and show their work in the form of a prototype, a report, and a presentation. The project will be completed in a set of deliverables based on the following milestones (deadlines will be provided later).

**Milestone #1. A description of the proposed system**

This document should include a definition of the system, your target users, multiple tasks they might perform with your system, current problems or challenges with these tasks, and a description of how your system could provide possible solutions.

**Milestone #2. User interviews**

Students must conduct in-person interviews and/or use online surveys to collect the basic requirements expected from the proposed system. At this stage, students should provide a document that shows their requirement collection method (interviews, questionnaire, etc.), the sample size, questions used, and a basic analysis/summary of the data collected.

**Milestone #3. Requirements analysis**

Based on the data collected in the previous stage, students should prepare the requirements analysis document which specifies functional, non-functional, and user-experience requirements.

**Milestone #4. Initial design**

The initial design document should include basic design sketches (prototypes) demonstrating all tasks performed by the system. The design should demonstrate the sequence of actions (steps) taken to achieve each task and provide details such as screen and menu structures, icons, and graphics.

**Milestone #5. Design evaluation**

Each team will evaluate the initial design of one of the other teams. Each team should prepare a document with detailed feedback by walking through the key requirements and functions. This report should include all identified problems and recommendations for changes. Each team should also receive evaluations from a sample of the targeted users.

**Milestone #6. Final design**

Each team should revise their initial design and prepare a report documenting their process to refine their design. The report should include a summary of the feedback received (from classmates and targeted users) and the changes made based on the evaluation process.

**Milestone #7. Final presentations**

Each team will conduct a presentation using PowerPoint slides that show their design details and summarize their design process. Details about the presentation requirements will be provided later.

**Academic Integrity**

The University's code of academic integrity is designed to ensure that the principles of academic honesty and integrity are upheld. All students are expected to adhere to this code. All acts of academic dishonesty will be dealt with in accordance with the provisions of this code. Every student in this course must abide by the Kuwait University policy on cheating and plagiarism. A copy of the student guide can be accessed online on:

<http://vpaa.ku.edu.kw/ar/documents/KU%20ByLaws/Students/Curriculum_Regulations.pdf>

In particular,

* You should neither give nor receive assistance from anyone in taking the quizzes, homework, and other exams.
* You should immediately report to me any act of academic dishonesty that you may observe. Your anonymity will be protected.

Cheating includes (but not limited to):

* Using unauthorized notes during the examination.
* Using unauthorized devices during the examination.
* Communicating with anyone besides instructor or exam proctor.
* Looking at another student's work during the examination.
* Copying another student’s work.

**Other Course Policies**

**Attendance in this class is required.** While there is no specific grade given for attendance, absences and late attendance will negatively affect your in-class experience. It is your responsibility to seek help from classmates to fill you in on missed materials. Students are expected to be on time for the lectures. Students who arrive late can enter the classroom but will be marked as late or absent. In addition, every student must abide by the Kuwait University Policy on Attendance (published in the Student Guide).

Your fellow students and I need 100% of your attention and mindshare while the class is in session. Toward this end:

* For each class meeting, please arrive sufficiently ahead of the official start time in order to collect any handouts or prior quizzes and get yourself ready.
* Please do not walk around or out of the classroom, while class is in session.
* All electronic gadgets must be turned off or set silent while class is in session (vibrate mode is not accepted).

**Special needs:** If you have a disability or special needs, please bring this to my attention as soon as possible, but not later than the second week of class.

**Grading**:

* No grade change (of any assignment or exam) will be made after one week the grades are published. If you do not agree with the grade on any activity, you may request that the grading of the activity be re-evaluated.
* It is important to recognize that a grade reflects another person’s evaluation and judgment of your work. I will personally grade your homework, group presentation, quizzes, and final exam. You are encouraged to meet with me at any time to discuss the strengths and weaknesses of your course work (i.e., to gain understanding of your performance). I will do my best to ensure that grading is fair and consistent for all students. Your suggestions, questions, and grade challenges are welcomed and encouraged. However, no part of your grade will be based on anything other than your coursework.

**Important note**: Please DON'T send anyone (a family member or any other person) to talk to me about raising your grade. Any student who violates this rule will not receive class bonuses (if any).

**Common Excuses that are not Acceptable**

“I am a senior and I need an A in the class to graduate because my GPA is low.”

“My scores do not reflect the enormous effort I am putting into this course.”

“I spent hours studying for this test, but I just blanked out during the test.”

APPENDIX: CBA’S VISION, MISSION & COMPETENCY GOALS

CBA Vision: To be the leading provider of quality business education in the region.

CBA Mission: As part of Kuwait University, the leading national institution of higher education, the College of Business Administration is committed to providing quality business education, engaging in research and community services to contribute to the socio-economic development of the country.

CBA Competency Goals

1. **Analytical Competency:** A CBA graduate will be able to use analytical skills to solve business problems and make a well-supported business decision.

**Student Learning Objectives:**

* 1. Use appropriate analytical techniques to solve a given business problem.
  2. Critically evaluate multiple solutions to a business problem.
  3. Make well-supported business decisions.

1. **Communication Competency:** A CBA graduate will be able to communicate effectively in a wide variety of business settings.

**Student Learning Objectives:**

* 1. Deliver clear, concise, and audience-centered presentations.
  2. Write clear, concise, and audience-centered business documents.

1. **Information Technology Competency:** A CBA graduate will be able to utilize Information Technology for the completion of business tasks.

**Student Learning Objectives:**

* 1. Use data-processing tools to analyze or solve business problems.

1. **Ethical Competency:** A CBA graduate will be able to recognize ethical issues present in business environment, analyze the tradeoffs between different ethical perspectives, and make a well-supported ethical decision.

**Student Learning Objectives:**

* 1. Identify the ethical dimensions of a business decision.
  2. Recognize and analyze the tradeoffs created by application of competing ethical perspectives.
  3. Formulate and defend a well-supported recommendation for the resolution of an ethical issue.

1. **General Business Knowledge:** A CBA graduate will be able to demonstrate a basic understanding of the main business disciplines’ concepts and theories.

**Student Learning Objectives:**

* 1. Acquire a fundamental understanding of knowledge from the main business disciplines (e.g. finance, accounting, marketing, and management information systems, among others).

1. CBA Competency Goals can be found at the end of this document. [↑](#footnote-ref-1)