



## **CS487: *Human Computer Interaction*** **Course Outline**

### **General Information**

<b>Semester:</b>	Spring 2019
<b>Instructor:</b>	Name: Dr. Redhwan Nour Phone: 0594440755 Email: rnour@taibahu.edu.sa Website: www.rnour.com
<b>Course:</b>	Title: Human Computer Interaction Code: 487 Credit hours: 3 Pre- requisites: CS 281
<b>Mode of instruction:</b>	A. Traditional lectures ✓ B. Lab sessions
<b>Course description:</b>	CS 487 is concerned with the joint performance of tasks by humans and machines. It stresses the importance of good interfaces and the relationship of interface design to effective human interaction with computers. This course provides students with an understanding of Human Computer Interaction (HCI) design principles and how to apply them in the context of developing usable interactive computer systems. The course will cover topics including user-centered design, the design process, prototyping, organizing and presenting information, user interfaces, interaction styles and devices, usability studies, measuring and evaluating the user experience, etc. for the needs of multiple platforms and emergent devices.
<b>Learning outcomes:</b>	<ol style="list-style-type: none"><li>1. Define the basics of human and computational abilities and limitations and the importance of human-centered software, social aspects.</li><li>2. Outline simple applications, together with help and documentation, that supports modern graphical user interface.</li><li>3. State how user-centered design complements other software process models.</li><li>4. Apply conceptual understanding of concepts, principles, and theories.</li></ol>



	<ol style="list-style-type: none"> <li>5. Apply procedures involved in critical thinking and creative problem solving, both when asked to do so, and when faced with unanticipated new situations.</li> <li>6. Demonstrate Act responsibly and ethically in personal and professional relationships</li> <li>7. Communicate effectively in oral and written form.</li> <li>8. Use information and communication technologies (such as Internet).</li> <li>9. Use basic mathematical and statistical techniques</li> </ol>
<b>Assumed knowledge:</b>	
<b>Learning Resources:</b>	<p>- <b><u>Text Book</u></b> Alan Dix, Janet E. Finlay, Gregory D. Abowd, Russell Beale, "Human-Computer Interaction", 3rd ed., Pearson, 2004</p>

## Topics:

Week Commencing	Week Number	Lecture Topic
6-1-2019	Week 1	Introduction
13-1-2019	Week 2	Understanding the problem
20-1-2019	Week 3	Design and prototyping
27-1-2019	Week 4	Understanding users and user studies
3-2-2019	Week 5	Usability techniques
10-2-2019	Week 6	Keystroke-based methods. Think aloud user studies
17-2-2019	Week 7	<b>Midterm exam 1</b>
24-2-2019	Week 8	Cognitive walkthrough.
3-3-2019	Week 9	People- psychological and physiological constraints
10-3-2019	Week 10	Models of human information processing and interaction.
17-3-2019	Week 11	Personalized interaction
24-3-2019	Week 12	Heuristic Evaluation
31-3-2019	Week 13	<b>Midterm exam 2</b>
7-3-2019	Week 14	Perspectives - overview of the UI design process. Surface computing evolution.
14-3-2019	Week 15	What's next?



## Assessment Schedule

	Assessment Type	Week Due	Proportion of Total Mark
1	First Midterm Exam	7	20 %
2	Second Midterm Exam	13	20 %
3	Exercises and HomeWorks	varies	10%
4	Quizzes	varies	10%
5	Final Theoretical Exam	16-18	40%

**Note:**  
Exams (midterm or final) need to be taken at the scheduled time. **No mockup exams will be allowed** unless in case of proven exceptional circumstances (e.g. serious injury, ...etc.), and with the approval of the Vice Dean.



### **Academic Standards:**

Students are reminded of the principles laid down in the *Student Handbook* and the following complementary rules:

1. *Individual-work* assignments implies that student should deliver his/her own original work. However, for *group-work* assignments or tasks collaboration between members of the groups (and only within the group) is expected.
2. In case of written assignments, use your own words. Otherwise, you can use short quotes or paraphrase some statements with clear and correct referencing. Copying from any source (including web pages and books) without proper referencing, will be considered **PLAGIARISM** (i.e. dishonesty). **This is a serious misconduct that causes a serious academic penalty, including zero marks for the assignment and the course.** For more information refer to the *Student Handbook*, and the university procedures in case of student cheating or misconduct.
3. A breach of discipline or misbehaving including miscommunication or verbal abuse is not acceptable and will be dealt with in accordance with the Rules and By-Laws of the University.

### **Having problems with the English language?**

If you think you need help with your English or have difficulties in studying the course material in English, consult the **English Language Center (ELC) of Taibah University** [<http://elc.taibahu.edu.sa/index.php>].

### **Need Support?**

Students with special needs (e.g. disabilities, extensive family responsibilities, ...etc.) can seek help from the college *Academic Advising and Student Care Unit*. The head of this unit in the male section is Dr. Magdy Saleh <Mawed@taibahu.edu.sa>.

### **Academic issues?**

If you are experiencing problems while undertaking this course, seek advice from the course instructor, then your academic advisor. If the issue still unsolved, you can go to the Head of Department, Dr. Reyad Alluhaibi <rluhaibi@taibahu.edu.sa>, then the Vice Dean, Dr. Omar Alhazmi <ohhazmi@taibahu.edu.sa>.

### **Attendance:**

Students must attend **at least 75% of the total lectures and labs (if any)**, otherwise they will not be allowed to set the final exam. Once again, it is important to familiarize yourself with the contents of the *Student Handbook*.

### **Your opinion is important:**

To improve the courses provided to you in the BSc program, some students will be asked to fill a survey in week14 regarding particular aspects of courses. Not all students will be surveyed, and those who will have the chance to give feedback, will do so on voluntarily basis and anonymously (i.e. no identity or personal information to be collected). This might be one of your great chances to share in improving the program, practices, and academic life in TaibahU. Student feedback is highly regarded, and you are encouraged to participate when invited.