

University: Alexandria
Faculty: Science
Program: Computer Science

**Form no. (12)
Course Specification**

1- Course Data

Course Code: CS 313	Course Title: <i>Introduction to Human-Computer Interaction (HCI)</i>	Academic Year/Level: Third level (First semester)
Specialization: Computer Science	No. of Instructional Units: Lecture <input type="text" value="2"/> Lab <input type="text" value="1"/>	

2- Course Aim	<ul style="list-style-type: none"> This course is designed to encourage in students a sense of interest for Human computer interaction concept and its application in different contexts Provide a solid foundation in the major areas of Human computer interaction Provide education and training of high quality in Human computer interaction
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3- Intended Learning Outcome

a- Knowledge and Understanding	<p>a1. Describe the main concepts, definitions of graphic systems a2. Review theories and concepts used in Human computer interaction a3. Identify an understanding of the contribution and impacts of Human computer interaction in scientific, social, economic, environmental, political and cultural terms. a4. Input devices & output devices a5. interfaces and viewing a6. Icons, menus, dialog,</p>
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b- Intellectual Skills	<p>b1. Manipulate and apply appropriate theories, principles and concepts relevant to Human computer interaction</p> <p>b2. Critically assess and evaluate the literature within the field of Human computer interaction</p> <p>b3 Deduce and interpret information from a variety of sources relevant Human computer interaction</p>
c- Professional Skills	<p>c1. Plan, design and execute practical activities using techniques and procedures Appropriate to Human computer interaction</p> <p>c2. Execute a piece of independent research using Human computer interaction, computer media and techniques;</p>
d- General Skills	<p>d1. Develop appropriate effective written and oral communication skills relevant to the specific course of Human computer interaction</p> <p>d2. Demonstrate the ability to work effectively as part of a group</p> <p>d3. Solve problems relevant to Human computer interaction using ideas and techniques some of which are at the forefront of the discipline.</p> <p>d4. Solve problems relevant to applications in real life in computer science using old and new languages some of which are at the forefront of the discipline;</p>
4- Course Content	<ul style="list-style-type: none"> • Mapping, • Affordances, • Constraints, • Seven stages of action, • Schneiderman's 8 Golden Rules, • Information visualization, • Model human processor, • Keystroke level model, • Fitt's law, • Input devices (keyboard, pointing, voice), • Output devices (displays, color, sound), • Interaction styles (direct manipulation, Menu selection, Form Command languages), • Windows, Icons, Menus, Dialogue boxes, • Concepts (grids, simplicity, consistency, white space), Context sensitive help, Tutorials, Reference material, • Cognitive walkthrough, • Heuristic evaluation, Expert reviews, • Controlled experiments (subjects, dependant & independent variables, statistics), • Synchronous/asynchronous tools, • Audio/video, Shared workspaces.

5- Teaching and Learning Methods	Lecturers – Home works - Oral discussion - Quizzes
6- Teaching and Learning Methods for Students with Special Needs	NONE
7- Student Assessment:	
a- Procedures used:	Lecturers – tutorials- homework – oral discussion - Quizzes
b- Schedule:	Mid-Term exam... Week 10 Final exam Week 17
c- Weighing of Assessment:	Term work (exam + home works) 20% Oral exam 10% Final exam 70%
8- List of References:	The Most Human Human: What Talking with Computers Teaches Us About What It Means to Be Alive by Brian Chris, (2011)
a- Course Notes	Course notes provided by the Faculty member of Computer Science Division, Math department, to be handled at the beginning of the semester.

b- Required Books (Textbooks)	
c- Recommended Books	
d- Periodicals, Web Sites, ..., etc.	

Course Instructor: Dr. Yasser Fouad

Head of Department: Prof. Dr. Mahmoud El-Alem.

Date: 1/10/2011