Philadelphia University
Faculty of Information Technology
Department of Software Engineering
Second Semester, 2015/2016

	Course Syllabus
Course Title: Graphical User Interface	**Course code:711471; 721323**
Course Level: 4	**Course prerequisite (s) and/or co requisite (s): 710312**
Lecture Time: 9:45 -11:00	**Credit hours: 3**

Academic Staff Specifics

Name	Rank	Office No.	Office Hrs.	E-mail Address
Dr. Mohammad Taye	**Assistant Professor**	**309**	**-S-T-T** **11:00 -12:00** **12:00-13:00**	**mtaye@philadelphia.edu.jo**

Course description:

HCI (human-computer interaction) is the study of how people interact with computers. It is concerned with the design, evaluation, and implementation of interactive computing systems for human use and with the study of environment surrounding them. The interaction with the computer systems are done through GUI (Graphical User Interfaces).In order to design, develop and implementation of good interfaces, the knowledge of human-computer interaction principles and GUI programming skills are required. The course aims to provide students with the principles for predicting the usability of human computer interaction, and developing systematic methodologies for design and evaluating them .Writing of GUI specifications and implementation of GUI applications in the JAVA programming language is also covered.

Course objectives:

The primary objective of this course is to give the student an introduction to the theory and practice of graphical user interface concepts. From a theoretical standpoint, we will discuss topics such as basic GUI principles, human-computer interaction, and usability guidelines. From a practical standpoint, we will cover Web interface design, GUI programming in C#.

Upon successful completion of this course, students should be able to:

1 Have knowledge and understanding of the overall design structure and functionality of Human computer.
2 Have good programming skill in the development of Graphical User Interfaces
3 Have the ability to design and implement Group GUI projects.
4 Design, implement and evaluate effective and usable graphical computer interfaces.
5 Describe and apply core theories, models and methodologies from the field of HCI.
6 Describe special considerations in designing user interfaces for older adults.

Course/ Recourses

- **Books (title , author (s), publisher, year of publication)**

  B.Shneiderman,Designing the User Interface:Strategies for Effective Human Computer Interaction,Addison-wesley,1998

- **Support material (s)**
  1. Deitel & Deitel**,** Visual Basic, How to program, Prentice Hall, 1999
  2. Y. Daniel Liang, Introduction to Java Programming 4th ed., Prentice Hall, 2002**.**

Teaching methods:

Duration: 16 weeks, 48 hours in total
Lectures: 32 hours, 2 per week
Laboratory: 16 hours, 1 per week

Learning outcomes:

Upon completion of this course, students will obtain the following outcomes:

- **Knowledge and understanding**
  - Have knowledge and understanding of the overall design structure and functionality of Human computer interaction
  - Have the ability to design and implement Group GUI projects
  - Practical and subject specific skills (Transferable Skills).
  - Students are expected to do the lab exercises in the classes and are evaluated based on their performance.
  - understanding of fundamental graphical user interface concepts

Cognitive skills (thinking and analysis).

- experience performing Web computation
- Apply Design rules
- Produce Implementation supports
- Use Evaluation techniques
- greater understanding of the software development process
- experience working in teams on software projects

- **Communication skills (personal and academic).**
  - Plan and undertake a major individual project, and prepare and deliver coherent and structured verbal and written technical report.
  - Be able to display an integrated approach to the deployment of communication skills, use IT skills and display mature computer literacy; strike the balance between self-reliance and seeking help when necessary in new situations, and display personal responsibility by working to multiple deadlines in complex activities.

- **Practical and subject specific skills (Transferable Skills).**
  - Be able to deal effectively with new Software process methodologies, techniques, and tools

Assessment instruments

- Short reports and/ or presentations, and/ or Short research projects*: not applicable*
- Quizzes. *During all the semester*
- Home works: *during all the semester*
- Final examination: 40 marks

Allocation of Marks

Assessment Instruments	Mark
First examination	**20%**
Second examination	**20%**
Final examination: 50 marks	**40%**
Reports, research projects, Quizzes, Home works, Projects	**20%**
Total	**100%**

Documentation and academic honesty

- Documentation style (with illustrative examples)
  - Practical works reports must be presented according to the style specified in the homework and practical work guide
- Protection by copyright
- Avoiding plagiarism
  - Any stated plagiarism leads to an academic penalty

Course/module academic calendar

week	Basic and support material to be covered	Homework/reports and their due dates
(1)	Introduction	
(2)	Human aspects	**Assignment1**
(3)	Human aspects	
(4)	Technology aspects	
(5)	Technology aspects	**Assignment2**
(6) First examination	User Interface development cycle	
(7)	User Interface development cycle	
(8)	Usability and Design	**Assignment3**
(9)	Usability and Design	
(10)	Design practice	
(11) Second examination	Designing Websites using the Design Process	**Assignment4**
(12)	User Support	
(13)	Screen design	
(14)	Evaluation Techniques	
(15)	Evaluation Techniques	**Assignment5**
(16) Final Examination	Review	

Expected workload:

On average students need to spend 2 hours of study and preparation for each 50-minute lecture/tutorial.

Attendance policy:

Absence from lectures and/or tutorials shall not exceed 15%. Students who exceed the 15% limit without a medical or emergency excuse acceptable to and approved by the Dean of the relevant college/faculty shall not be allowed to take the final examination and shall receive a mark of zero for the course. If the excuse is approved by the Dean, the student shall be considered to have withdrawn from the course.

Module references

Books

Supplemental: Rodgers, Y., Sharp, H., Preece, J. (2011). Interaction Design: Beyond Human-Computer Interaction, 3rd ed. Wiley.

Supplemental: Moggridge, B. (2007) Designing Interactions. Cambridge, MA: The M.I.T. Press.

Supplemental: Lazar, J., Feng, J.H., Hochheiser, H. (2010). Research Methods in Human-Computer Interaction, Wiley.