



**Philadelphia University**  
**Faculty of Business**  
**Department of Hospital Management**

<b><u>Course syllabus</u></b>	
<b>Course title: Computer Applications in Healthcare organizations</b>	<b>Course code: 0380423</b>
<b>Course level:</b>	<b>Course prerequisite (s) and/or Requisite (s):0380324</b>
<b>Lecture time:</b>	<b>Credit hours: 3</b>
<b>Location:</b>	<b>32102</b>

<b>Academic Staff Specifics</b>				
<b>Name</b>	<b>Rank</b>	<b>Office number and location</b>	<b>Office hours</b>	<b>E-mail address</b>
<b>Dr. Atef Al-Raoush</b>	<b>Assistant Prof.</b>	<b>32411</b>	<b>10:00 –11:10 Sun.</b> Tues. Thur. <b>9:45 –11:15</b> Mon. Wed.	<b>aalraoush@philadelphia.edu.jo</b>

### **Course description**

This course contains an overview of evolution in information and communications technology in the health sector and its leading role in the optimization and upgrading of health care services for individuals and communities.

This course reviews the latest uses of information and communication technology in various areas of health such as collection, storage, retrieval and analysis of information management, standardization of electronic health records, and dissemination and exchange of information, Telemedicine, Smart electronic health cards, digital photography, which provides effective communication between medical providers and patients and improve health services for patients and the various health sectors.

As well as, this course discuss the main software's used in the health sector and provide practice opportunity to students to use this software in advance to prepare him the labor market in the health sector.

## Course objectives:

**At the end of the course, the student is expected to know the following:**

- The concept of e-health and its role in the health system.
- Different applications and practical programs for e-health.
- Understand the terms and scientific concepts used in different programs and applications for e-health.
- The benefits of e-health programs for the community and patients, health institutions and health service providers.
- Methods of maintaining privacy and security of health electronic information.

## Course/ resources

### Text book/ books (title, author (s), publisher, year of publication)

There is no one textbook for this course or websites, students will be using a range of books and websites associated with the content of the course plan:

- 1- New technologies to improve healthcare and clinical applications, Joseph Tan , translation Dr Yaman al-Atassi, strategic technologies book series And advanced Arabic Studies Center distribution, 2013.
- 2- Health informatics, Medical Informatics, Hani Khoury and Georges Barakat AIREDA publishing, 1999.
- 3- Telemedicine , Adam Williams and Margaret Carey, Translating: Dr Mohamed El-hennawy and Dr Marwan goose, Arab Center, 2002, Damascus.

### Websites:

<http://en.wikipedia.org/wiki/EHealth>  
<http://www.emro.who.int/his/medicalethics.htm>  
<https://itunews.itu.int/Ar/Note.aspx?Note=1006>  
<http://www.alriyadh.com/2005/02/14/article39005.html>  
<http://www.tech-wd.com/wd/2011/08/20/health-and-technology/>  
<http://www.kfshrc.com/?p24>  
<https://www.pdfdrive.net/the-impact-of-ehealth-on-the-quality-and-safety-of-healthcare-e14217986.html>  
<https://www.pdfdrive.net/ehealth-handbook-for-managers-of-healthcare-services-and-systems-e26828731.html>  
<https://ehs.com.jo>

### Support material

Some articles, websites, and software will be provided as supported materials.

## Homework guide.

**HOMEWORK:** Homework is an essential part of the educational process. The homework in this course will reinforce the material covered in the classroom and provide time for practice. Students will earn points for each homework assignment completed. Homework assignments will be graded based on completion.

**Teaching methods:**

Lectures, discussion groups, tutorials, problem solving, debates, etc.

**Learning outcomes:**

- Knowledge and understanding  
Understand the importance of the E-Health in in hospitals and health institutions, and to enrich the student with cognitive abilities and basic skills to learn and identify the technology and computer applications used in the health sector so that he is able to use this software.
- Cognitive skills (thinking and analysis).  
Use synthesizes analysis and links the theoretical and practical aspects of the course through computer applications.
- Communication skills (personal and academic).  
Discuss and sharing ideas about the E-Health and computer applications which used in health care organizations.
- Practical and subject specific skills (Transferable Skills).  
The ability to use health information systems, and evidence-based management principles of problem-solving.

**Assessment instruments**

- Exams (First, Second and Final Exams)
- Quizzes.
- Short reports and/ or presentations, and/ or Short research projects
- Homework assignments

<b><u>Allocation of Marks</u></b>	
<b>Assessment Instruments</b>	<b>Mark</b>
First examination	<b>20</b>
Second examination	<b>20</b>
Final examination: 50 marks	<b>40</b>
Reports, research projects, quizzes, homework, Projects	<b>20</b>
Total	<b>100</b>

**Documentation and academic honesty**

- Documentation style (with illustrative examples)

All exams, projects and assignments will be in a secure file with the instructor.

- Protected by copyright

This course is given from the textbook mentioned above. It is copyright protected. Students are encouraged to purchase this textbook

- Avoiding plagiarism.

Plagiarism is the unacknowledged borrowing of another writer's words or ideas.

### **How Can Students Avoid Plagiarism?**

To avoid plagiarism, you must give credit whenever you use

- Another person's idea, opinion, or theory;
- Any facts, statistics, graphs, drawings—any pieces of information—that are not common knowledge;
- quotations of another person's actual spoken or written words; or
- Paraphrase of another person's spoken or written words.

If you are in doubt about whether what you are doing is inappropriate, consult your instructor. A claim that “you didn't know it was wrong” will not be accepted as an excuse.

### **Course/ academic calendar**

<b>week</b>	<b>Basic and support material to be covered</b>	<b>Homework/reports and their due dates</b>
<b>(1)</b>	<b>The New trends in health care systems, hospitals, linked to Information and technological developments</b>	
<b>(2)</b>	<b>Historical development of information and communication technology applications in the health sector.</b>	<b>Group discussion</b>
<b>(3)</b>	<b>Electronic health system as a part of the national health information system and hospital information system MACRO AND MICRO LEVELS</b>	<b>Assignment</b>
<b>(4)</b>	<b>E-Health</b> <ul style="list-style-type: none"> <li>• E-health concept</li> <li>• E-Health benefits for health system.</li> <li>• E-health benefits for patients.</li> <li>• E-health benefits for health providers</li> <li>• E-health benefits for health system managers</li> <li>• Electronic health features.</li> </ul>	
<b>(5)</b>	<ul style="list-style-type: none"> <li>• E-health applications</li> <li>• Integrative perception of E-health.</li> <li>• Examples of E-health applications.</li> <li>• Reasons for failure of some E-health initiatives.</li> <li>• Successful E-health system.</li> <li>• E-health Implementation Requirements.</li> <li>-Infrastructure: software</li> <li>-Software Applications</li> <li>-User training and awareness</li> </ul>	<b>Assignment</b>
<b>(6)</b>	<b>TELEMEDICINE and its applications</b> <b>E-HEALTH RECORD</b>	<b>First exam period</b>
<b>(7)</b>	<b>E-health consulting and Tele-home healthcare</b>	<b>Discuss the first</b>

		<b>exam results, strength and weakness</b> <b>Data entry</b>
<b>(8)</b>	<b>E-health education</b>	<b>Short exam</b>
<b>(9)</b>	<b>E-health education and training</b>	
<b>(10)</b>	<b>Medical Tourism and E_Marketing</b>	
<b>(11)</b>	<b>E-health system planning and management</b>	<b>Period of Second Exam</b>
<b>(12)</b>	<b>E-Health Ethics. Privacy and security of electronic health information.</b>	<b>Discuss the Second exam results, strength and weakness</b>
<b>(13)</b>	<b>E-health computer applications in Jordan (Electronic Health Solutions (EHS) (HAKEEM)</b>	
<b>(14)</b>	<b>E-health computer applications in Jordan (Electronic Health Solutions (EHS) (HAKEEM)</b>	
<b>(15)</b>	<b>E-health computer applications in Jordan (Electronic Health Solutions (EHS) (HAKEEM)</b>	
<b>(16) Final Examination</b>	<b>General and comprehensive review for the E-Health and electronic application course</b> Review and final exam	<b>Period of Final Exam</b>

### **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.

### **Other Education Resources**

#### **Books**

- 1- New technologies to improve healthcare and clinical applications, Joseph Tan translation Dr Yaman al-Atassi, strategic technologies book series And advanced Arabic Studies Center distribution, 2013.
- 2- Health informatics, Medical Informatics, Hani Khoury and Georges Barakat AIREDA publishing, 1999.
- 3- Telemedicine , Adam Williams and Margaret Carey, Translating: Dr Mohamed El-hennawy and Dr Marwan goose, Arab Center, 2002, Damascus.

## Websites

<http://www.openclinical.org/e-Health.html>

<http://en.wikipedia.org/wiki/EHealth>

<http://www.emro.who.int/his/medicalethics.htm>

<https://www.pdfdrive.net/e-health-e42723308.html>

<https://www.pdfdrive.net/implementation-of-electronic-health-records-e31885256.html>

<https://www.pdfdrive.net/evolution-of-medication-administration-workflow-in-implementing-electronic-health-record-system-e22302008.html>

<https://www.pdfdrive.net/the-impact-of-ehealth-on-the-quality-and-safety-of-healthcare-e14217986.html>

<https://www.pdfdrive.net/ehealth-handbook-for-managers-of-healthcare-services-and-systems-e26828731.html>

<https://itunews.itu.int/Ar/Note.aspx?Note=1006>

<http://www.alriyadh.com/2005/02/14/article39005.html>

<http://www.tech-wd.com/wd/2011/08/20/health-and-technology/>

<http://www.kfshrco.com/?p24>