1	**Course title**	*(المهارات الحاسوبية للكليات الطبية)Computer Skills for Medical Students*
2	**Course number**	*1902103*
3	**Credit hours**	*3 Credit Hours*
	Contact hours (theory, practical)	*3*
4	**Prerequisites**	*Basics of Computing (1932099)*
5	**Program title**	*Computer Information Systems*
6	**Program code**	2
7	**Awarding institution**	*Computer Information Systems*
8	**School**	King Abdullah II school for Information Technology
9	**Department**	*Computer Information Systems*
10	**Level of course**	
11	**Year of study and semester (s)**	All Years
12	**Final Qualification**	
13	**Other department (s) involved in teaching the course**	None
14	**Language of Instruction**	English
15	**Teaching methodology**	☒Blended ☐Online
16	**Electronic platform(s)**	☒Moodle ☐Microsoft Teams ☐Skype ☐Zoom ☒Others…juexams.com………
17	**Date of production/revision**	20-9-2020 Revised : 14-10-2022

18 Course Coordinator:

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19 Other instructors:

Dr.Rana Yousef , Dr.Mousa Al-Akhras , Mrs.Tahani AlKatib , Mr.Yousef Majdalawi , Dr.Mohammad Al-Fawaier , Dr.Fuad Hijeh , Dr.Mais Al-Haj , Mrs.Alaa Khraisat .

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20 Course Description:

This course empowers the medical students with the necessary computer skills associated with the health information systems. It also provides entry level knowledge for conducting medical research experiments and utilizing the available software tools including spread sheet (Excel 2016) ,database (Access 2016) and Microsoft PowerPoint (2016). Moreover, it gives an overview of key healthcare information technologies and concepts: healthcare data and analytics, electronic health records (EHR), health information exchanges (HIE), healthcare information privacy and security, HIPAA privacy rule, telemedicine, consumer health and mobile health systems, and population health management. Furthermore, this course includes case studies for both a database in health information system and medical data analysis.

21 Course aims and outcomes:

ABET Students Outcomes (SOs):

1- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

6- Support the delivery, use, and management of information systems within an information systems environment [IS].

Mapping ILOs to ABET SOs

ILOs	ABET SOs
A1,B1,A2,B2,B3,D1	1
A3,A4,A5,B4,C1,C2	6

A- Aims:

The course aims to teach students how to use common software for organizing, searching and computing with emphasis on "real world" business-related tasks. Students will have the opportunity to practice and implement applications in the lab.

B- Intended Learning Outcomes (ILOs):
Upon successful completion of this course, students will be able to:

A-Knowledge and understanding:

A.1 *Understand the general Concepts involved in computer programming languages Memory Concepts, operators, data types, constants, variables.*

A.2 *Understand the main concepts involved in problem solving:*
Algorithms, Pseudo Codes, Flowcharts and Flowchart Constructs (sequence, selection, Iterations).

A.3 *Understand how to use excel to present the medical data in the suitable way.*

A.4 *Understand how to develop a health information system using Access that meets a specific User and system requirements.*

A.5 *Understand how to use excel in analyzing the data and generating some statistical Measurements.*

B-Intellectual Skills: with ability to

B.1 *Distinguish between different concepts (Data types ,constants, variables, assignment statements)*

B.2 *Distinguish between different flowchart and pseudocode constructs.*

B.3 *Realize the importance of health Informatics and health information systems applications in our life.*

B.4 *Realize the importance of advanced Microsoft applications (Excel, Access) in health Information systems.*

C-Subject Specific Skills: With ability to

C.1 *Deal with Microsoft applications (Excel, Access, Powerpoint).*

C.2 *Solve real world problems in health information systems using Microsoft applications.*

D-Transferable Skills: with ability to

D.1 *Improve students' skills in using Microsoft applications.*

22. Topic Outline and Schedule:

Week	Lecture	Topic	ILO's	Teaching Methods*/platform	Evaluation Methods**	References
1	1.1	Students Orientation		Face-To-Face	None	
	1.2	Problem Solving	A1,B1, A2,B2	Face-To-Face	Assignment on JUexams.com	Lecture Notes + Examples on Moodle
	1.3	Problem Solving	A1,B1, A2,B2	Asynchronous lecturing (Video on Moodle)		Lecture Notes + Examples on Moodle
2	2.1	Problem Solving	A1,B1, A2,B2	Face-To-Face	Assignment 1 on JUexams.com	Lecture Notes + Examples on Moodle
	2.2	Problem Solving	A1,B1, A2,B2	Face-To-Face	Assignment 1 on JUexams.com	Lecture Notes + Examples on Moodle
	2.3	Problem Solving	A1,B1, A2,B2	Asynchronous lecturing (Video on Moodle)		Lecture Notes + Examples on Moodle
3	3.1	Problem Solving	A1,B1, A2,B2	Face-To-Face	Assignment 1 on JUexams.com	Lecture Notes + Examples on Moodle
	3.2	Microsoft Excel : Introduction to Microsoft Excel 2016 (Sorting)	A3, B4,C1, C2	Face-To-Face	Assignment 2 on JUexms.com	Lecture Notes + Training File + Videos on Moodle
	3.3	Filtering (Auto+Advanced)	A3, B4,C1, C2	Asynchronous lecturing (Video on Moodle)	Online Task 1 on JUexams.com	Lecture Notes + Training File + Videos on Moodle
	4.1	Functions in Excel : If Function Countif CountIFS	A3, B4,C1, C2	Face-To Face	Assignment 2 on JUexms.com	Lecture Notes + Training File + Videos on Moodle
	4.2	Lookup Function Central Tendency Dispersion Measurements	A3, B4,C1, C2	Face-To Face	Assignment 2 on JUexms.com	Lecture Notes + Training File + Videos on Moodle
	4.3	Charts in Excel	A3, B4,C1,C2	Asynchronous (Video on Moodle)	Online Task 2 on JUexams.com	Lecture Notes+ Training File 1 + Videos on Moodle

5	5.1	Data Analysis in Excel (Relationship among variables	A3, B4,C1,C2	Face-To Face	Assignment 2 on JUexams.com	Lecture Notes+ Training File2 + Videos on Moodle
	5.2	Understanding Medical Test Results + Medical Screening vs Medical Testing	A3, B4,C1,C2	Face-To Face	Assignment 3 on JUexams.com	Lecture Notes+ Training File2+ Videos on Moodle
	5.3	Descriptive statistics Excel as Data Analysis Tool	A3, B4,C1,C2	Asynchronous (Video on Moodle)	Task 3 on JUexams.com	
6	6.1	Test Characteristics	A3, B4,C1,C2	Face-To Face	Assignment 3 on JUexams.com	Lecture Notes+ Training File2 + Videos on Moodle
	6.2	Test Characteristics	A3, B4,C1,C2	Face-To Face	Assignment 3 on JUexams.com	Lecture Notes+ Training File2 + Videos on Moodle
	6.3	Level Of Agreement between Tests.(IRR)	A3, B4,C1,C2	ASynchronous (Video on Moodle)	Assignment 3 on JUexams.com	Lecture Notes+ Training File2 + Videos on Moodle
7	7.1	Kappa Statistic	A3, B4,C1,C2	Face –To-Face	Online Task 4 on JUexams.com	Lecture Notes+ Training File2 + Videos on Moodle
	7.2	Health Informatics	A3, B4,C1,C2	Face –To-Face		Lecture Notes+ Training File2 + Videos on Moodle
	7.3	Midterm Exam				
8	8.1	Health Informatics	**A3, B4,C1, C2**	Face –To-Face		Lecture Notes+ Training File3 + Videos on Moodle
	8.2	Health Informatics	**A3, B4,C1, C2**	Face –To-Face		Lecture Notes+ Training File3 + Videos on Moodle
	8.3	Supporting Videos for Health Informatics	**A3, B4,C1, C2**	Asynchronous (Video on Moodle)		
9	9.1	Database design using Access 2016 : Access Environment	**A4,B4, C1,C2, D1,D2**	Face –To-Face		Lecture Notes+ Training Database(Hospital) + Videos on Moodle

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		, creating tables in Access, Changing Fields properties ,Data Validation				
	9.2	Relationships and their types with examples in Health information systems	**A4,B4, C1,C2, D1,D2**	Face –To-Face		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle
	9.3	Queries	**A4,B4, C1,C2**	Asynchronous (Video on Moodle)	Online Task 5 on JUexams.com	Videos on Moodle
10	10.1	Microsoft Access Queries	**A4,B4, C1,C2**	Face-to-Face		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle
	10.2	Forms	**A4,B4, C1,C2**	Face-to-Face		Videos on Moodle
	10.3	Microsoft Access Reports	**A4,B4, C1,C2**	Asynchronous (Video on Moodle)	Online Task 6 on JUexams.com	Videos on Moodle
11	11.1	HIS Examples	**A4,B4, C1,C2**	Face-to-Face		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle
	11.2	HIS Examples	**A4,B4, C1,C2**	Face-to-Face		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle
	11.3	Access Sheet	**A4,B4, C1,C2**	Asynchronous (Video on Moodle)		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle
12	12.2	Microsoft Powerpoint	**C1 ,D1**			
	12.3	Microsoft Powerpoint	**C1 ,D1**	Face-to-Face		Lecture Notes+ Training Database(Hospit al) + Videos on Moodle

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	13.2	Microsoft Powerpoint	C1 ,D1	Face-to-Face		Lecture Notes+ Training Database(Hospital) + Videos on Moodle
13	13.3	Revision		Face-to-Face		Lecture Notes+ Training Database(Hospital) + Videos on Moodle
14	Final Exam Period					

- Teaching methods include: Face-To-Face meeting ; Asynchronous lecturing
- Evaluation methods include: Homework, Tasks , Exam…etc

23 Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark
Online Tasks	20
Assignments	10
Midterm Exam	30
Final Exam	40

24 Course Requirements (e.g: students should have a computer, internet connection, webcam, account on a specific software/platform…etc):

Students should have a computer, Internet Connection, Microsoft office 2016 .

25 Course Policies:

A- *Attendance policies:*
  Maximum allowable absence 15% of number of Lectures/Semester

B- *Absences from exams and handing in assignments on time:*
  It is the student's responsibility to ensure that he/she is aware of all assignments, announcements and contents of missed sessions

C- *Health and safety procedures:*
  University Regulations

D- *Honesty policy regarding cheating, plagiarism, misbehavior:*
  It is the student's responsibility to ensure that he/she is adhere with cheating, plagiarism, misbehavior.

E- *Grading policy:*

The grading policy is subject to change at the end of the semester according to the overall performance of students.

F- *Available university services that support achievement in the course:*

Computer Labs.

26 References:

A- Required book (s), assigned reading and audio-visuals:

1- مهارات الحاسوب 2 د. محمد بلال الزعبي , د. أحمد الشرايعة , د.أمجد هديب , أ. خالدة الزعبي . الجامعة الأردنية كلية الملك عبد الله الثاني لتكنولوجيا المعلومات , الطبعة الأولى 2012

2- **Provided material and hands out.**

B- Recommended books, materials, and media:

1. http://Elearning.ju.edu.jo.
2. http://office.microsoft.com.
3. www.gcflearnfree.org.

27 Additional information:

- Students are encouraged to make heavy use of the library, E-LIBRARY http://ezlibrary.ju.edu.jo/login or from within the university using (http://e-library)

- The instructor can make changes to this syllabus when necessary.

- University regulations will be preserved at all times