

1.	Course title	Computer Skills for Medical Students
2.	Course number	1902103
3.	Credit hours (theory, practical)	3 Credit Hours
	Contact hours (theory, practical)	Two hours face-to-face sessions / One hour online session
4.	Prerequisites/requisites	Prerequisites : :1932099
5.	Program title	Computer Information Systems
6.	Year of study and semester (s)	Any
7.	Final Qualification	Bachelor(B.Sc.)
8.	Other department (s) involved in teaching the course	None
9.	Language of Instruction	English
10.	Date of production/revision	production : 22-6-2015/ revision :26-1-2020
11.	Required/ Elective	Required

12. Course Coordinator:

Mrs. Lama Rajab
Office numbers: 219
Office Hours : 12:30-1:30 Sun,Tue
phonenumbers:22608
Email addresses: lama.rajab@ju.edu.jo

13. Other instructors:

<i>Name</i>	<i>Office numbers</i>	<i>office hours</i>	<i>phone numbers</i>	<i>Email</i>
Dr.Rana Yousef	216	11:30_12:30 Sun, Tue	22641	Rana.yousef@ju.edu.jo
Mrs.Tahani Al-Khatib	219	12:30-1:30 Sun,Tue	22608	t.khatib@ju.edu.jo
Mrs.OlaShalbak	Office: QA Office - first floor	11:30_12:30 Sun, Tue	23776	o.shalbak@ju.edu.jo
Mrs.Ala'aKhraisat	101	11:30_12:30 Sun, Tue	23657	a.khraisat83@gmail.com

14. 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) and database (Access 2016). Moreover, it introduces the necessary computer skills for understanding medical experimental settings, hypotheses testing, and statistical tests such as: student Ttest as well as the computer skills for computing both the correlation and regression. Furthermore, this course includes case studies for both a database in health information system and medical data analysis

15. Course aims and outcomes:

A- Aims:

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

A. Knowledge and Understanding: students should be able to

- A1) Understand the general concepts involved in computer programming languages
Memory concepts, operators, data types, constant, variables,
- A2) Understand the main concepts involved in problem solving:
Algorithms, Pseudo Codes, Flowcharts and Flowchart Constructs (sequence, selection, Iterations).
- A3) Understand how to use excel to present the medical data in the suitable way.
- A4) Understand how to develop a health information system using Access that meets a specific user and system requirements.
- A5) Understand how to use excel in analyzing the data and generating some statistical measurements.

B. Intellectual skills: students should be able to

- B1) Distinguish between different concepts (Data types ,constants, variables, assignment statements)
- B2) Distinguish between different flowchart and pseudocode constructs.
- B3) Realize the importance of health information systems applications in our life.
- B4) Realize the importance of advanced Microsoft applications (Excel, Access) in health information systems.

C. Subject Specific skills: students should be able to

- C1) Deal with Microsoft applications (Excel, Access)
- C2) Solve problems in health information systems using Microsoft applications.

D. Transferable Skills: students should be able to

- D1) Improve students skills in using Microsoft applications.

16. Topic Outline and Schedule:

Topic	Week	ILOs	Program SOs ¹	TLA (teaching, learning and Assessment)
Introduction to problem solving: Data Types, Constants and variables, Assignment Statement, Arithmetic, logical and relational operators. Precedence Rules.	1 st (three f2f sessions)	A1,B1	1	T: Lecture L: in class notes A: In class Questions
Pseudo codes, flowchart and flowchart constructs.	2 nd (two f2f sessions)	A2,B2	1	T: Lecture L: In class notes A: Assignment
Health Informatics	2 nd (online session)	B3	1	T: Online material L: Reading the online Handout A: Online Quiz
Microsoft Excel 2016: Excel Environment: Starting excel, sorting, subtotals.	3 rd (f2f session)	A3, B4,C1, C2	6	T: Lecture L: in class notes + videos A: In class Questions
Filtering (Auto and Advanced)	3 rd (f2f session)	A3, B4,C1, C2	6	T: Lecture L: in class notes + videos A: In class Questions
creating and customizing charts	3 rd (online session)	A3, B4,C1, C2	6	T : Online Material L : viewing online material A : online quiz
Data Analysis in Excel (central Tendency + Dispersion Measurements)	4 th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Data Analysis in Excel (Relationship among variables)	4 th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Quiz	4 th			A: Exam
Test Measurements	5 th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Test Measurements	5 th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Case Study	5 th (online	D1	1	L: study the case A: Online Quiz

	Session)			
Test Measurements+ pivot table	6th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: Assignment
Kappa Statistic	6th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Case Study	6th (online session)	D1	1	L: study the case A: Online Quiz
Hypothesis Testing (Introduction)	7th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Hypothesis Testing (Student T-test)	7th (f2f session)	A3, B4,C1, C2	1	T: Lecture L: in class notes + videos A: In class Questions
Hypothesis Testing (T-dist)	7th (Online Session)	A3, B4,C1, C2	1	T : Online Material L : viewing online material and studying it A : online quiz
Database design using Access 2016 : Access Environment , creating tables in Access, Changing Fields properties ,Data Validation	8th (f2f session)	A4,B4, C1,C2, D1,D2	6	T: Lecture L: in class notes + videos A: In class Questions
Relationships and their types with examples in Health information systems	9th (f2f session)	A4,B4, C1,C2	6	T: Lecture L: in class notes + videos A: In class Questions
Midterm exam				A: Exam
Queries	10th (f2f session)	A4,B4, C1,C2	6	T: Lecture L: in class notes + videos A: In class Questions
Query using more than one table , parameter Query	10th (Online session)	D1	6	T : Online Material L : viewing online material and studying it A : Assignment
Creating a graphical user interface (forms) with the suitable components.	11th (f2fsession)	A4,B4, C1,C2	6	T: Lecture L: in class notes + videos A: In class Questions
Case Study : part 1	11th (online session)	D1	1	L: study the case A: Online Quiz
Generating Reports	12th (f2fsession)	A4,B4, C1,C2	6	T: Lecture L: in class notes + videos A: In class Questions
Case Study : part 2	12th (online session)	D1	1	L: study the case A: Online Quiz
Final Exam	13th			A: Exam

17. Evaluation Methods and Course Requirements (Optional):

Development of ILOs is promoted through the following teaching and learning methods:

Blended Learning: In class Lectures, videos and presentations and online sessions.

18. Course Policies:

A- Attendance policies:

Absent percentage is restricted to 15% at most with an acceptable reason.

B- Absences from exams and handing in assignments on time:

Every student is expected to completely adhere to the assignments strict deadlines; absolutely no exceptions will be given.

C- Health and safety procedures:

Practical sessions need labs which are suitable adjustable chairs, safe computers and wires should be well organized.

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:

- Midterm	30%
-Quiz	15%
-Assignments	15%
- Final Exam:	40%

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

Computer Labs.

G- Statement on Students with disabilities

Students with Disabilities: Students with disabilities who need special accommodations for this class are encouraged to meet with the instructor and/or their academic advisor as soon as possible. In order to receive accommodations for academic work in this course, students must inform the course instructor and/or their academic advisor, preferably in a written format, about their needs no later than the 4th week of classes.

19. Required equipment:

1- Laptop

2- Data show

3- Microsoft office 2016

20. References:

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

- 1- مهارات الحاسوب ٢ د. محمد بلال الزعبي , د. أحمد الشرايعة , د. أمجد هديب , أ. خالدة الزعبي . الجامعة الأردنية
كلية الملك عبد الله الثاني لتكنولوجيا المعلومات , الطبعة الأولى ٢٠١٢
- 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

21. Additional information:

Course Assessment:

- **Online Assessment (30)**
- **In-Class Assessment (70)**

Date: -----

Name of Course Coordinator: -----Signature: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:

Head of Department

Assistant Dean for Quality Assurance

Course File