

## Course E-Syllabus

1	<b>Course title</b>	Information Technology Entrepreneurship and Innovation
2	<b>Course number</b>	1902383
3	<b>Credit hours</b>	3
	<b>Contact hours (theory, practical)</b>	3
4	<b>Prerequisites/corequisites</b>	1902224
5	<b>Program title</b>	Computer Information Systems
6	<b>Program code</b>	1902
7	<b>Awarding institution</b>	The University of Jordan
8	<b>School</b>	King Abdullah II School of Information Technology
9	<b>Department</b>	Computer Information Systems Department
10	<b>Level of course</b>	Bsc
11	<b>Year of study and semester (s)</b>	2022-2023, First semester
12	<b>Final Qualification</b>	Bsc
13	<b>Other department (s) involved in teaching the course</b>	-
14	<b>Language of Instruction</b>	English
15	<b>Teaching methodology</b>	<input type="checkbox"/> Blended <input type="checkbox"/> Online
16	<b>Electronic platform(s)</b>	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
17	<b>Date of production/revision</b>	01/10/2022

### 18 Course Coordinator:

*Office numbers, office hours, phone numbers, and email addresses should be listed.*

Office number: 221

Office hours: 12:30 pm - 1:30 pm: Sun., Tues., Thur.

phone number: 22619

email addresses: [sawalha.majdi@ju.edu.jo](mailto:sawalha.majdi@ju.edu.jo)

### 19 Other instructors:

Name:

Office number:

Phone number:

Email:

## 20 Course Description:

This course is to introduce students to new and innovative technologies and examine how these powerful systems have fundamentally reshaped modern organizations. These new information technologies are being used to change how organizations operate, produce products and services, and communicate both internally and as well as with external partners. Using online collaborative technologies that were developed in the context of social networking and online communities and data-driven and Artificial Intelligence technologies, corporations are reengineering both internal business processes and those related to customers, suppliers, and business partners. Developing innovative ways to communicate and collaborate can lead to new business opportunities and new efficiencies. This course investigates the technologies, methods, and practices of developing new innovations such as online communities, data revolution, and the Artificial Intelligence paradigms to reengineer business processes and develop innovative, value-adding, and sustainable business activities within existing corporations and new start-ups. The students will learn how to translate innovative, data-driven, and AI ideas into concrete project requirements, develop technological solutions, launch a business venture, and assess its effectiveness. Delivery will combine traditional lectures with other active teaching methodologies. A case study of innovative Healthcare Information Systems (HCIS) is selected for discussion throughout the course to highlight basic concepts of innovative HCIS project development. Students are advised to develop innovative solutions for simple problems in HCIS.

## 21 Course aims and outcomes:

### A- Aims:

The aim of the course is to introduce students to new and innovative technologies and examine how these powerful systems have fundamentally reshaped modern organizations. This course investigates the technologies, methods and practices of developing new innovations such as online communities, and how this knowledge and these skills are applied to reengineer business processes.

### B- Intended Learning Outcomes (ILOs):

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

#### **OA-Knowledge and Understanding (students should)**

- (OA1) have some understanding of new and innovative technologies.
- (OA2) have some understanding of methods and practices of developing new innovations.
- (OA3) have some understanding of the engineering of business processes.
- (OA4) have some understanding of online collaborative technologies (social networking, online communities and corporations).
- (OA5) have some understanding of Intellectual Property.

#### **OB-Intellectual skills-with ability to**

- (OB1) Appreciate the subtleties related to methods and practices of developing new innovations.
- (OB2) Appreciate the subtleties related to information systems that reshaped modern organizations.
- (OB3) Decide the suitability of innovative methods for developing business plans.
- (OB4) Analyze an existing innovative information system.
- (OB5) Analyze and discuss examples of existing innovative health care information systems.

#### **OC- Practical Skills-With ability to**

- (OC1) Implement a solution to a simple problem where innovative methods can be employed.
- (OC2) Express knowledge of academic writing to develop an innovative information system.
- (OC3) Practice effective ways for pitching (i.e. presenting projects proposals for funding)
- (OC4) Practice effectively how to develop project's budget.
- (OC5) Apply practically the procedures for developing an innovative solution for a simple problem in the domain of health care information systems.

#### **OD-Transferable Skills-With ability to**

- (OD1) Deploy communication skills.
- (OD2) Work effectively within a group to analyze, design and develop a proposal for innovative information system.
- (OD3) To work to tight deadlines
- (OD4) effectively present the final work in a demo.

## 22. Topic Outline and Schedule:

Week	Topic	ILOs	Program SOs <sup>1</sup>	TLA (teaching, learning and Assessment)
1	<b>Induction and Welcome</b> -Definition of Innovation, entrepreneurship, invention.	OA1, OA2	2	Chapter 1, Available Notes, Discussion, Homeworks,
2 and 3	<b>Why Digital Changes Everything</b> - Digital disruption - The pace of digital technological change - The new entrepreneurial context - Digital open innovation	OA1, OA2	2	Chapter 2, Available Notes, Videos (part 1), Homeworks, Discussions, Exams
4 and 5	<b>Creating Value in a Digital World</b> - The power of externalities - Connecting products and businesses - Digital third places - Digital business models	OA1, OA2, OB1, OB2	2	Chapter 3 & 5 Available Notes Videos (part 2) Homeworks, Discussions, Exams
6	<b>Leadership and Teams</b>	OD2	5	Chapter 6 Available Notes. Homeworks, Discussions, Exams
7 and 8	<b>Writing Project's proposal</b>	OB3, OC2, OD3, OC4, OD2	3	Available Notes, Homeworks, Discussions, Exams
9 - 11	<b>Business Models and Capturing Value</b>	OA3, OB3, OC4	2	Chapters 11, 12, 13, 16, 17 Available Notes, Videos (part 3) Homeworks, Discussions, Exams
12 and 13	<b>Case Study: Innovation for Health Information Systems</b>	OA4, OB4, OB5, OC5	2	Book 2: Chapters 1, 4, 7, 10, 11 Book 4: Chapter 4 Homeworks, Discussions, Exams

<sup>1</sup> The ABET outcomes

14	<b>Exploiting Knowledge and Intellectual Property</b>	OA5	4	Book 1: Chapter 15 Book 3: Chapters 1, 4, 5 Homeworks, Discussions, Exams
15	<b>Pitching</b>	OC3, OD1, OD4	3	In class practice
16	<b>Revision and Presentations</b>	OD1, OD4	3	Presentations

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: Homework, Quiz, Exam, pre-lab quiz...etc

### 23 Evaluation Methods:

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

<b>Evaluation Activity</b>	<b>Mark</b>	<b>Topic(s)</b>	<b>Period (Week)</b>
Home Work1	1	Introduction	1
Worksheet 1	1		1
Worksheet 2	1		1
Project 1	5		2
Worksheet 3	1		1
Worksheet 4	1		1
Project 2	10		3

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

Student should have:

- Hardware:
  - Computer
  - Internet connection
  - Microphone & speakers
- Software
  - Moodle account
  - MS Teams account

### 25 Course Policies:

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A- Attendance policies:

University Regulations

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

University Regulations

C- Health and safety procedures:

University Regulations

D- Honesty policy regarding cheating, plagiarism, misbehavior:

University Regulations

E- Grading policy + Weighting (i.e. weight assigned to exams as well as other student work)

Mid term exam 30%

Homeworks and quizzes: 10%

Programming or research Project: 10%

Final exam: 50%

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

Computer laboratories, data shows and JU e-learning system

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 4<sup>th</sup> week of classes.

## 26 References:

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

- 1- John Bessant, Joe Tidd (2015) "Innovation and Entrepreneurship", WILEY, 3<sup>rd</sup> Edition.
- 2- Eric Topol (2012) The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Health Care, Basic Books, New York, First Edition.
- 3- Rami M. Olwan (2013) Intellectual Property and Development: Theory and Practice, Springer-Verlag Berlin Heidelberg
- 4- Christos Kalloniatis Ed. (2012) "Innovative Information Systems Modelling Techniques", IntechOpen, London.

B- Recommended books, materials, and media:

- 1- Brynjolfsson E (2010), Wired for innovation; The MIT Press, Cambridge, MA
- 2- Conway, S. and Steward, F. (2009) Managing and Shaping innovation; Oxford OUP.

- 3- Christos Kalloniatis (Ed) (2012) “Innovative Information Systems Modelling Techniques”, InTech, Croatia.
- 5- Information Systems/Information Systems  
[https://en.wikiversity.org/wiki/Information\\_Systems/Information\\_Systems](https://en.wikiversity.org/wiki/Information_Systems/Information_Systems)
- 6- other extra materials provided by instructors on e-learning system. <http://e-learning.ju.edu.jo>

**27 Additional information:**

- 1. Supplementary notes are made available of the e-learning (Moodle) system.
- 2. Students are encouraged to make use of JU library, E-LIBRARY:  
 access within the university: <http://e-library>  
 access from outside: <http://ezlibrary.ju.edu.jo/login>

**Some important/relevant journals include:**

- (1) International Journal of Transitions and Innovation Systems
- (2) International Journal of Innovative Information Systems and Technology Research

Name of Course Coordinator: Dr. Majdi Sawalha Signature:  Date: 01.10.2022

Head of Curriculum Committee/Department: ----- Signature: -----

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

Head of Curriculum Committee/Faculty: ----- Signature: -----

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