

Course Syllabus

1.	Course title	Information Systems Innovation and new Technology
2.	Course number	1902352
3.	Credit hours (theory, practical)	3
	Contact hours (theory, practical)	3
4.	Prerequisites/corequisites	1902223
5.	Program title	Computer Information Systems
6.	Year of study and semester (s)	2019-2020, First semester
7.	Final Qualification	BSc
8.	Other department (s) involved in teaching the course	
9.	Language of Instruction	English
10.	Date of production/revision	1/9/2019
11.	Required/ Elective	Required

12. Course Coordinator:

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

Office number: 221

Office hours: 12:00 pm - 1:00 pm: Sun., Tues., Thur.

phone number: 22619

email addresses: sawalha.majdi@ju.edu.jo

13. Other instructors:

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

14. Course Description:

As stated in the approved study plan.

New IS technologies are being used to change how organizations operate, produce products and services, and communicate both internally and as well as with external partners. This course is to introduce students to new and innovative technologies and examine how these powerful systems have fundamentally reshaped modern organizations. Using online collaborative technologies that were developed in the context of social networking and online communities, 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, and how this knowledge

and these skills are applied to reengineer business processes. For example, how products, services and information systems are developed, and how geographically disperse virtual teams collaborate. A case study of innovative Healthcare Information Systems (HCIS) is discussed throughout the course to highlight basic concepts of innovative HCIS project development. New and innovative technologies of HCIS will be discussed and examined. Online collaborative technologies (i.e. social networking and online communities) are reengineering both internal business processes of HCIS. Students are advised to develop innovative solutions for simple problems in HCIS.

15. 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.

16. Topic Outline and Schedule:

Topic	Week	ILOs	Program SOs ¹	TLA (teaching, learning and Assessment)
Induction and Welcome -Definition of Innovation, entrepreneurship, invention.	1	OA1, OA2	2	Chapter 1, Available Notes, Discussion, Homeworks,
Why Digital Changes Everything - Digital disruption - The pace of digital technological change - The new entrepreneurial context - Digital open innovation	2 and 3	OA1, OA2	2	Chapter 2, Available Notes, Videos (part 1), Homeworks, Discussions, Exams
Creating Value in a Digital World - The power of externalities - Connecting products and businesses - Digital third places - Digital business models	4 and 5	OA1, OA2, OB1, OB2	2	Chapter 3 & 5 Available Notes Videos (part 2) Homeworks, Discussions, Exams
Leadership and Teams	6	OD2	5	Chapter 6 Available Notes. Homeworks, Discussions, Exams
Writing Project's proposal	7 and 8	OB3, OC2, OD3, OC4, OD2	3	Available Notes, Homeworks, Discussions, Exams
Business Models and Capturing Value	9 - 11	OA3, OB3, OC4	2	Chapters 11, 12, 13, 16, 17 Available Notes, Videos (part 3) Homeworks, Discussions, Exams
Case Study: Innovation for Health Information Systems	12 and 13	OA4, OB4, OB5, OC5	2	Book 2: Chapters 1, 4, 7, 10, 11 Book 4: Chapter 4 Homeworks, Discussions, Exams
Exploiting Knowledge and Intellectual Property	14	OA5	4	Book 1: Chapter 15 Book 3: Chapters 1, 4, 5 Homeworks, Discussions, Exams
Pitching	15	OC3, OD1, OD4	3	In class practice
Revision and Presentations	16	OD1, OD4	3	Presentations

¹ The ABET outcomes

(Please mention instructors per topic if the course topics are being taught by more than one instructor)

17. Evaluation Methods and Course Requirements (Optional):

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

Lectures, Homeworks, Discussions, working in groups, project proposals

18. Course Policies:

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 4th week of classes.

19. Required equipment:

Computer laboratory, data show and JU e-learning system

20. References:

- A- Required book (s), assigned reading and audio-visuals:
- 1- John Bessant, Joe Tidd (2015) “Innovation and Entrepreneurship”, WILEY, 3rd 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
 - 6- other extra materials provided by instructors on e-learning system. <http://e-learning.ju.edu.jo>

21. 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

Date: 1/9/2019

Name of Course Coordinator: Dr. Majdi Sawalha 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