

Course e-Syllabus

1	Course title	Computer Assisted Learning
2	Course number	1902355
3	Credit hours (theory, practical)	3 Credit Hours
	Contact hours (theory, practical)	3
4	Prerequisites/ co-requisites	Web Development - 1 (1904121) Or Web Development (1901359)
5	Program title	Computer Information Systems (CIS)
6	Program code	2
7	Awarding institution	The university of Jordan
8	School	King Abdullah II School for Information Technology
9	Department	Computer Information Systems Department
10	Level of course	Undergraduate
11	Year of study and semester (s)	Fall 2022/2023
12	Final Qualification	B.S. Computer Information Systems
13	Other department(s) involved in teaching the course	None
14	Language of Instruction	English
15	Teaching methodology	<input checked="" type="checkbox"/> Blended <input type="checkbox"/> Online
16	Electronic platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others:.....
17	Date of production/revision	October 2022

18. Course Coordinator:

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19. Other instructors:

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20. Course Description:

This course will introduce students to a variety of learning technologies and multimedia authoring tools to use for designing and developing effective eLearning. It will discuss the essential concepts of designing engaging eLearning content for various learners who bring different needs, styles, and wants. Topics include Introduction to eLearning, Key Learning Theories, eLearning Development Methods, Dynamic Instructional Design Model, eLearning storyboarding with text, animation, and scenarios, Academic Software, Administrative Software, Virtual Reality, Augmented Reality, eLearning Authoring tools, and Learning Management Systems (LMS). Weakly practice in the lab. Students are required to work through a real project and create a mini-interactive e-Course using eLearning authoring tools.

21. Course aims and outcomes:

A- Aims:

The main goal of this course is to introduce students to a variety of instructional technologies and multimedia authoring tools to use for designing and developing an effective e-course.

Upon completion of the course, students are expected to be able to:

1. Understand key learning theories and relate them to the use of technologies in teaching and learning.
2. Prepare an instructional design and lesson plan that demonstrates the effective use of technology in instruction.
3. Identify and use the microcomputer hardware and software appropriate to an educational environment
4. Plan, Design and develop a mini interactive e-course using multimedia authoring tools
5. Evaluate the effectiveness of educational hardware and software

B- Intended Learning Outcomes (ILOs):

Successful completion of this course should lead to the following learning outcomes:

A- Knowledge and Understanding - students should be able to

- A1) discuss the theoretical foundations and instructional design principles relevant to educational technology.
- A2) understand the advantages of computer usage in teaching and learning
- A3) understand the internet usage in virtual teaching.
- A4) understand different methodologies used to develop computer assisted learning courses.
- A5) understanding general features for computer assisted learning courses.

B-Intellectual Skills- with ability to

- B1) become familiar with various applications uses computers.
- B2) become familiar with different tools in design and authoring learning materials.
- B3) analyze critical issues related to educational technology

C-Subject Specific Skills – with ability to

- C1) develop an application using authoring tools.
- C2) design computerized examinations
- C3) design and develop multimedia instructional materials.

D-Transferable Skills- with ability to

- D1) articulate a personal view of the relationship among teaching, learning and Technology.
- D2) evaluate the quality of instructional multimedia and web materials.
- D3) Work in a group to demonstrate knowledge of issues involved in using computer technology in education
- D4) Present the final work (Project) and make demo.

22. Topic Outline and Schedule:

Topic	Week	ILOs	Program SOs	ABET SOs	TLA (teaching, learning and Assessment)
Welcome and Orientation to the course: Syllabus, objectives, textbook, supporting material and online resources. Introduction to e-Learning: What is e-Learning, Synchronies and Asynchronies e-Learning.	1.1 (Class /Lab) 1.2 (Class & Moodle)	A2- A5	4	4	T: Instructor Introductory Presentation L: Reading notes and online resources A: Class discussion
e-Learning Promise and Pitfalls: Instructional Methods, Media Elements, e-Learning Development Process, Type of e-Learning goals, what makes e-Learning unique, e-Learning pitfalls, what is good e-course, Types of e-Learning architectures	2.1 (Class /Lab) 2.2 (Class /Moodle)	A2- A5, B3, D1	3, 7, 12	2	T: Instructor Presentation L: Reading notes and online resources A: Class discussion and questions
Theoretical Foundation-Part1: Learning theories, Communication Theory,	3.1 (Class / Lab)	A1, A2, B3, D1	3,4, 7, 12	2	T: Instructor Presentation L: Reading lecture notes and online resources A: Class discussion, Review questions
Behaviorists, cognitivist's, constructivist's,	3.2 (Moodle)	A1, A2, B3, D1	3,4, 7, 12	2	T: Online resources L: Reading lecture notes and online resources A: Online Quiz

Theoretical Foundation-Part2: Learning theories, Cognitive Styles, A Holistic View of Teaching, Learning and Technology.	4.1 (Class / Lab)	A1, A2, B3, D1	3,4, 7, 12	2	T: Instructor Presentation and online resources L: Reading lecture notes and online resources A: Class discussion, Review questions
Learning Styles, Multiple Intelligences, Learning and Technology.	4.2 (Moodle)	A1, A2, B3, D1	3,4, 7, 12	2	T: Online resources L: Reading lecture notes and online resources A: Online Quiz
Designing and Planning Technology-Enhanced Instruction Part 1: The Design-Plan-Act System, Dynamic Instructional Design Model,	5.1 (Class / Lab)	A2, A4, C1, D2, D3	1,3, 10, 12	2, 5	T: Instructor Presentation and Case Study L: Reading lecture notes and Group Project discussion A: Review questions, and Creating project instruction design
Performance Objectives and Bloom Taxonomy	5.2 (Moodle)	A2, A4, C1, D2, D3	1,3, 10, 12	2, 5	T: Online Tutorials/ resources L: Viewing online resources A: Online Quiz
Designing and Planning Technology-Enhanced Instruction-Part 2: Lesson Planner and Action Planner Template	6.1 (Class / Lab)	A2, A4, C1, D2, D3	1,3, 10, 12	2, 5	T: Instructor Presentation and Case Study L: Reading lecture notes and Group Project discussion A: Review questions, and completing the project instruction design (DID)
Planning for effective Instruction, and summary of the D-P-A System	6.2 (Moodle)	A2, A4, C1, D2, D3	1,3, 10, 12	2, 5	T: Online resources L: Viewing online resources A: Online Quiz

Computer in the Learning Environment: Types of Programs, Application Software, Computer Hardware, Storage and Network. - Exam Review	7.1 (Class /Lab) 7.2 (Class & Teams session)	A2, A3, D1	1,12	4	T: Instructor Presentation and online Demonstration L: Reading lecture notes, Web Search A: Review questions, and Presentation of Case Study
LMS Tools: Google Classroom Storyboarding	8.1 (Class /Lab)	B2, C1	1,12	2,4	T: Online Demonstration and online resources and Online Case Study L: Reading online resources A: Practice / Questions
Google Classroom-Learning Management System Environment	8.2 (Moodle)	A2, A3, D1	1,12	4	T: Online resources L: Viewing online resources A: Online Quiz
Midterm Exam	TBA				
eLearning Tools: Adobe Captivate	9.1 (Class /Lab)	B2, C1- C3, D3- D4	7, 10	2, 5	T: Online Demonstration and online resources L: Reading online Tutorial A: Practice
Adobe Captivate	9.2 (Moodle)	B2, C1- C3	7,10,12	2, 5	T: Online resources L: Reading Tutorial /Viewing online resources A: Online Practice/Exercise
Digital Technologies in the Classroom: E-Whiteboard, Data show, Smart and wireless devices, e-Book	10.1 (Class / Lab)	A2, A3, B1, B2	14,7	2, 4	T: Instructor Presentation and Demonstration, L: Reading lecture notes A: Review questions, Presentation about Apple TV, 3D printers, Fitbits, ... etc.
Virtual Reality (VR) Augmented reality (AR)	10.2 (Moodle)	A3, B1, B2	14,7	2, 4	T: Online Case Study about Augmented Reality L: Web search: VR or AR Sample Lesson A: Exercise/ Homework

Administration Software: Classroom Management Software, Presentation Software and Integrated Software.	11.1 (Class / Lab)	B1, B2	7	4	T: Instructor Presentation and Demonstration L: Reading lecture notes, Web search: Locate an example of Concept Mapping Software A: Review questions
Administration Software: Google Apps	11.2 (Moodle)	B1, B2	7	4	T: Online resources L: Reading Tutorial /Viewing online resources A: Online Quiz/Exercise
Academic Software: Authoring Systems, Imaging Software, , Reference Software, Tutorial Software, Drill and Practice, , Special needs Software, Problem-Solving Software and Concept Mapping Software	12.1 (Class / Lab)	B1, B2	7	4	T: Instructor Presentation and Demonstration L: Reading lecture notes, Web search A: Review questions / Exercise
Academic Software: SCRATCH - Games programming language, Loom	12.2 (Moodle)	C1, D3, D4	7	4	T: Online/ resources Case Study L: Web search and Reading online resources A: Exercise about Education Game
Case Studies: Submit Final Project for grading and presentation	13.1 (Class / Lab) 13.3 (Moodle)	A1- A5, B1- B3, C1- C3 D1- D4	1,3,4,7,10,12	2, 4, 5	T: Project Demonstration L: Observation and discussion A: Evaluation of the project documentation and presentation
Case Studies: Submit Final Project for grading and presentation	14.1 (Class / Lab) 14.2 (Class / Lab)	A1- A5, B1- B3, C1- C3 D1- D4	1,3,4,7,10,12	2, 4, 5	T: Project Demonstration L: Observation and discussion A: Evaluation of the project documentation and presentation
Final Exam	15 TBA				

23. Evaluation Methods and Course Requirements:

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

Teaching (T) Strategies: The Course will be delivered using different means like Online lecture, presentations, seminars, discussion, lab demos, online resources and case studies.

Learning (L) Methods: Students attend Online classes, ask questions and participate in discussions, do the home works, present the assignments and demo their works. A student can use the lab and select multimedia authoring tools to implement the assignments. Students will access the e-learning platform for more instruction and supported online learning materials.

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

Assessment (A) Methods: There will be several assessment methods of evaluation the performance of the students such as attending and class participation, grading the homework, online quizzes and assignments; conducting the Midterm and the Final Exams. Every student is expected to completely adhere to the assignments and project strict deadlines, absolutely no exceptions will be given.

Assessment Weights:

-Assignments + project + online quizzes + participations:30%

- 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.):

- Laptop or desktop computers
- Windows 7 or Above
- MS office 2016
- MS Teams
- Adobe Captivate
- Loom
- Web cam
- Head set

Online Course Site

Every student should visit the following site for course material, quizzes and announcements.

Site address: elearning.ju.edu.jo

User name: Your university internet id

Password: Your university internet password

- MS Office 365
- Every student should have a Gmail Account to Access Google Classroom
- Every student should get a copy of Adobe Captivate -- an eLearning Authoring Tool

25. Course Policies:

Regulations:

Every student is expected to attend all Online classes and completely adhere to the assignments and project strict deadlines, absolutely no exceptions will be given.

Assignments are individual or done in learning teams. While students are free to discuss their individual assignments with anybody, including fellow students, individual assignments are expected to show the expertise, creativity and critical faculty of the individual student. Virtually identical individual assignments (in the judgment of the instructor) are not acceptable. Plagiarism is unacceptable and will be punished with an F for the full course. References to all source materials are necessary

All of the following are important in the evaluation of a student's work.

Written Reports:

- * organization, clarity and continuity.
- * quality, completeness and soundness of the analysis
- * quality of presentation.

Oral Presentation:

- * organization and continuity.
- * selection and support of recommendations.
- * time, style and clarity.
- * professionalism.

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.

26. References:

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

Duffy and McDonald . Teaching and Learning with Technology, Enhanced Pearson eText -- Access Card, **Latest Edition**, Pearson.

-Optional

Clark, R.C. and Mayer, R.E. (2016). e-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning, 4th Edition. Wiley. ISBN: 978-1-119-15866-0

B- Recommended books, materials, and media:

- 1- Adobe Captivate (2019 release) Tutorials <https://elearning.adobe.com/adobe-captivate-tutorials/>
- 2- The beginners guide to Google Classroom (2019)
- 3-Microsoft Teams for Education <https://teams.com/education/>

4- Dede, C. and Richard, J. (2012). Digital Teaching Platforms: Customizing Classroom Learning for Each Student. New York: Teachers College Press.

5- Morrison, G.R., Ross, S.M., & Kemp, J.E. (2004). Designing effective instruction. Hoboken, New Jersey: John Wiley & Sons, Incorporated.

6- Wiliam Horton; Design Web-based Training, 2002.

7- International Society for Technology in Education <http://www.iste.org/>

8- The National Educational Technology Standards (NETS) <http://cnets.iste.org/>

9- JCAL (journal of computer assisted learning) (Blackwell publishing)

10- eLearningGuild (2006). Future Directions in e-Learning Research Report 2006, www.eLearningGuild.com

11- IEEE Transactions on Learning Technologies

12- International Society for Technology in Education <http://www.iste.org/>

13- The National Educational Technology Standards (NETS) <http://cnets.iste.org/>

14- Module games produced to Moodle: http://docs.moodle.org/en/Game_module

15- Khan Academy <http://khanacademy.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

Date: -----October 2022-----

Name of Course Coordinator: ---Thair Hamtini ---Signature: --Thair Hamtini ----

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