|  |  |  |
| --- | --- | --- |
| **1** | **Course title** | Computer Assisted Learning |
| **2** | **Course number** | 5401355 |
| **3** | **Credit hours (theory, practical)** | 3 |
| **Contact hours (theory, practical)** | 3 |
| **4** | **Prerequisites/corequisites** | 5402232 |
| **5** | **Program title** |  |
| **6** | **Program code** |  |
| **7** | **Awarding institution**  | The University of Jordan |
| **8** | **School** | Systems and information Technology Faculty |
| **9** | **Department** |  |
| **10** | **Level of course**  | 2nd and 3rd year |
| **11** | **Year of study and semester (s)** |  |
| **12** | **Final Qualification** | BSc |
| **13** | **Other department (s) involved in teaching the course** |  |
| **14** | **Language of Instruction** | English |
| **15** | **Date of production/revision** | May 2020 |

**16. Course Coordinator:**

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

**17. Other instructors:**

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

**18. Course Description:**

|  |
| --- |
| Introduction to Computer use in teaching; Teaching Authoring Tools; Human computer interaction; Software and hardware requirements; Task analysis and design; Multimedia and task development; Internet in Education; Question answer design; Student computer interaction; Static and dynamic interaction; Computerized examination; Virtual teaching; Case Study, weekly practice in the lab. |

**19. 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): Upon successful completion of this course students will be able to Successful completion of this course should lead to the following learning outcomes:A- Knowledge and Understanding - students should be able toA1) discuss the theoretical foundations and instructional design principles relevant to educational technology.A2) understand the advantages of computer usage in teaching and learningA3) 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 toB1) become familiar with various applications uses computers.B2) become familiar with different tools in design and authoring learning materials.B3) analyse critical issues related to educational technologyC-Subject Specific Skills – with ability toC1) develop an application using authoring tools.C2) design computerized examinationsC3) design and develop multimedia instructional materials.D-Transferable Skills- with ability toD1) 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 educationD4) Present the final work (Project) and make demo |

**20. Topic Outline and Schedule:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Topic | Week | Instructor | Achieved ILOs | Evaluation Methods | Reference |
| Welcome andOrientation to thecourse:Syllabus, objectives,textbook, supportingmaterial and onlineresources.Introduction to eLearning: What is eLearning, self-study vs.virtual classroom eLearning, Synchroniesand Asynchronies eLearning | 1 |  | A2- A5 | T: Instructor IntroductoryPresentationL: Reading notes and onlineresourcesA: Class discussion | CourseSyllabusand lecturenotes |
| e-Learning Promise andPitfalls: InstructionalMethods, MediaElements, e-LearningDevelopment Process,Type of e-Learninggoals, what makes eLearning unique, eLearning pitfalls, what isgood e-course, Types ofe-Learningarchitectures, eLearning to supporthuman learning process | 2 |  | A2-A5, B3,D1 | T: Instructor PresentationL: Reading notes and onlineresourcesA: Class discussion andquestions | Hand outand onlineresources |
| TheoreticalFoundation: Learningtheories,Communication Theory,Behaviourists,cognitivist’s,constructivist’s,Cognitive Styles,Learning Styles, MultipleIntelligences, A HolisticView of Teaching,Learning andTechnology | 3+4 |  | A1,A2,B3,D1 | T: Instructor PresentationL: Reading lecture notes andonline resourcesA: Class discussion, HandoutReview questions andOnline Quiz | Ch-1 |
| Photoshop: Toolbox,Layers, and Basic Tools | 5 |  | B2,C1 | T: Lab DemonstrationL: Reading online resourcesA: Lab Practice /Homework | Onlinetutorial |
| Designing and PlanningTechnology-EnhancedInstruction: Planning foreffective Instruction, TheDesign-Plan-Act System,Dynamic InstructionalDesign Model, BloomLevels of Cognition,Pedagogical Cycle,Lesson Planner andAction Planner Template | 6+7 |  | A2,A4,C1,D2, D3 | T: Instructor Presentation and Case StudyL: Reading lecture notes andGroup Project discussionA:, Handout Review questions, Online Quiz, and Creating project instruction design | Ch-2 andD-P-ATemplates |
| Macromedia Flash Part1: Tools, text, drawing,Using Layers, Keyframes and MotionTweeting | 8 |  | B2, C1-C3 | T: Lab DemonstrationL: Reading online TutorialA: Lab Practice / andHomework | OnlineTutorial |
| Computer in theLearning Environment:Review of theComputing Cycle,Graphical User Interface,Types of Programs,Application Software,Computer Hardware,Storage and Network. | 9 |  | A2, A3, D1 | T: Instructor Presentation and Lab Demonstration, Case StudyL: Reading lecture notes, Web SearchA: Handout Review questions, Online Quiz, and presentation of Case Study | Ch-3 |
| Midterm Exam |  |  |  |  |  |
| Macromedia Flash Part2: Shape Tweeting,motion guide, frame-by frame animation andaction script | 10 |  | B2, C1-C3,D4 | T: Lab DemonstrationL: Reading online TutorialA: Lab Practice / andHomework | OnlineTutorial |
| Digital Technologies inthe Classroom:Electronic Whiteboard,Data show, Smart andwireless devices, e-Book,and Virtual Reality (VR).AdministrationSoftware: ClassroomManagement Software,Presentation Softwareand Integrated Software | 11 |  | A2, A3, B1,B2 | T: Instructor Presentation and Lab Demonstration, Case Study Virtual RealityL: Reading lecture notes, Web search: Locate and bring a VR Sample LessonA: Handout Review questions, Online Quiz, and Presentation | Ch-4 andCh-5 |
| Academic Software:Authoring Systems,Imaging Software,Reference Software,Tutorial Software, Drilland Practice,Simulations and Games,Special needs Software,Integrated LearningSystem, Problem-SolvingSoftware and ConceptMapping Software | 12 |  | B1, B2 | T: Instructor Presentation and Lab Demonstration, Case Study Virtual RealityL: Reading lecture notes, Web search: Locate an example of Concept Mapping SoftwareA: Handout Review questions, Online Quiz, and Presentation of Case Study | Ch-6 andWebresources |
| eBooks: Writing tools,Editing tools, and CoverDesign | 13 |  | C1, D3, D4 | T: Lab DemonstrationL: Reading online resourcesA: e-Book for Project Portfolio | Webresources |
| Case Studies: SubmitFinal Project for gradingand presentation | 14 |  | A1-A5, B1-B3, C1-C3,D1-D4 | T: Project DemonstrationL: Observation and discussionA: Evaluation of the projectdocumentation andpresentation |  |
| Review | 15 |  |  | T: Review and SummaryL: DiscussionA: Answer Review Questions |  |
| Final Exam | 16 |  |  |  |  |

 |

**21. Teaching Methods and Assignments:**

|  |
| --- |
| Development of ILOs is promoted through the following teaching and learning methods:Teaching (T) Strategies: Class Contact is 3 Hours per week. The Course will be delivered using different means like lecture, presentations, seminars, discussion, lab demos and case studies.Learning (L) Methods: Students attend classes, ask questions and participate in discussions, do the home works, present the assignments and demo their works. A student will use the lab and select multimedia authoring tools to implement the assignments. Students will access the e-learning platform for more instruction and supportedlearning materials. |

**22. Evaluation Methods and Course Requirements:**

|  |
| --- |
| 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, 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 + quizzes + participations: 20%-mid-term exam: 30%-Final exam: 50% |

**23. Course Policies:**

|  |
| --- |
| Regulations:Every student is expected to attend all 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 necessaryAll 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.
 |

**24. Required equipment: (Facilities**, Tools, Labs, Training….)

|  |
| --- |
| Online Course SiteEvery student should visit the following site for course material, handouts and announcements.Site address: elearning.ju.edu.joUser name: Your university internet idPassword: Your university internet passwordPlease check with Lab 206 or 207 if you forget your id / password |

**25. References:**

|  |
| --- |
| Required book (s), assigned reading and audio-visuals:Duffy and McDonald (2011). Teaching and Learning with Technology, Fourth Edition, Pearson. ISBN-13:9780138007966- OptionalClark, R.C. and Mayer, R.E. (2011). E-Learning and the Science of Instruction: Proven Guidelines for Consumers andDesigners of Multimedia Learning. Third Edition, San Francisco, CA: Pfeiffer.Recommended books, materials, and media:1. Flash 8 Tutorial <http://www.adobe.com/products/flash>
2. Dede, C. and Richard, J. (2012). Digital Teaching Platforms: Customizing Classroom Learning for Each Student. New York: Teachers College Press.
3. Alessi and Trollip: Multimedia for Learning Methods and Development, third edition 2001, Allyn and Bacon.
4. Allen, M.W. (2003). Michael Allen’s guide to e-learning. Hoboken, New Jersey: John Wiley & Sons, Incorporated.
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](http://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
 |

**26. Additional information:**

|  |
| --- |
| - Students are encouraged to make heavy use of the library, E-LIBRARY http://ezlibrary.ju.edu.jo/login or fromwithin the university using (http://e-library)- The instructor can make changes to this syllabus when necessary.- University regulations will be preserved at all times |

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

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

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

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

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