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| **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:**

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

**17. Other instructors:**

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

**18. Course Description:**

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| 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:**

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| 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 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) analyse 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 |

**20. Topic Outline and Schedule:**

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Topic | Week | Instructor | Achieved ILOs | Evaluation Methods | Reference | | Welcome and  Orientation to the  course:  Syllabus, objectives,  textbook, supporting  material and online  resources.  Introduction to eLearning: What is eLearning, self-study vs.  virtual classroom eLearning, Synchronies  and Asynchronies eLearning | 1 |  | A2- A5 | T: Instructor Introductory  Presentation  L: Reading notes and online  resources  A: Class discussion | Course  Syllabus  and lecture  notes | | e-Learning Promise and  Pitfalls: Instructional  Methods, Media  Elements, e-Learning  Development Process,  Type of e-Learning  goals, what makes eLearning unique, eLearning pitfalls, what is  good e-course, Types of  e-Learning  architectures, eLearning to support  human learning process | 2 |  | A2-A5, B3,  D1 | T: Instructor Presentation  L: Reading notes and online  resources  A: Class discussion and  questions | Hand out  and online  resources | | Theoretical  Foundation: Learning  theories,  Communication Theory,  Behaviourists,  cognitivist’s,  constructivist’s,  Cognitive Styles,  Learning Styles, Multiple  Intelligences, A Holistic  View of Teaching,  Learning and  Technology | 3+4 |  | A1,  A2,B3,D1 | T: Instructor Presentation  L: Reading lecture notes and  online resources  A: Class discussion, Handout  Review questions and  Online Quiz | Ch-1 | | Photoshop: Toolbox,  Layers, and Basic Tools | 5 |  | B2,C1 | T: Lab Demonstration  L: Reading online resources  A: Lab Practice /Homework | Online  tutorial | | Designing and Planning  Technology-Enhanced  Instruction: Planning for  effective Instruction, The  Design-Plan-Act System,  Dynamic Instructional  Design Model, Bloom  Levels of Cognition,  Pedagogical Cycle,  Lesson Planner and  Action Planner Template | 6+7 |  | A2,A4,  C1,D2, D3 | T: Instructor Presentation and Case Study  L: Reading lecture notes and  Group Project discussion  A:, Handout Review questions, Online Quiz, and Creating project instruction design | Ch-2 and  D-P-A  Templates | | Macromedia Flash Part  1: Tools, text, drawing,  Using Layers, Key  frames and Motion  Tweeting | 8 |  | B2, C1-C3 | T: Lab Demonstration  L: Reading online Tutorial  A: Lab Practice / and  Homework | Online  Tutorial | | Computer in the  Learning Environment:  Review of the  Computing 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 Study  L: Reading lecture notes, Web Search  A: Handout Review questions, Online Quiz, and presentation of Case Study | Ch-3 | | Midterm Exam |  |  |  |  |  | | Macromedia Flash Part  2: Shape Tweeting,  motion guide, frame-by frame animation and  action script | 10 |  | B2, C1-C3,  D4 | T: Lab Demonstration  L: Reading online Tutorial  A: Lab Practice / and  Homework | Online  Tutorial | | Digital Technologies in  the Classroom:  Electronic Whiteboard,  Data show, Smart and  wireless devices, e-Book,  and Virtual Reality (VR).  Administration  Software: Classroom  Management Software,  Presentation Software  and Integrated Software | 11 |  | A2, A3, B1,  B2 | T: Instructor Presentation and Lab Demonstration, Case Study Virtual Reality  L: Reading lecture notes, Web search: Locate and bring a VR Sample Lesson  A: Handout Review questions, Online Quiz, and Presentation | Ch-4 and  Ch-5 | | Academic Software:  Authoring Systems,  Imaging Software,  Reference Software,  Tutorial Software, Drill  and Practice,  Simulations and Games,  Special needs Software,  Integrated Learning  System, Problem-Solving  Software and Concept  Mapping Software | 12 |  | B1, B2 | T: Instructor Presentation and Lab Demonstration, Case Study Virtual Reality  L: Reading lecture notes, Web search: Locate an example of Concept Mapping Software  A: Handout Review questions, Online Quiz, and Presentation of Case Study | Ch-6 and  Web  resources | | eBooks: Writing tools,  Editing tools, and Cover  Design | 13 |  | C1, D3, D4 | T: Lab Demonstration  L: Reading online resources  A: e-Book for Project Portfolio | Web  resources | | Case Studies: Submit  Final Project for grading  and presentation | 14 |  | A1-A5, B1-  B3, C1-C3,  D1-D4 | T: Project Demonstration  L: Observation and discussion  A: Evaluation of the project  documentation and  presentation |  | | Review | 15 |  |  | T: Review and Summary  L: Discussion  A: Answer Review Questions |  | | Final Exam | 16 |  |  |  |  | |

**21. Teaching Methods and Assignments:**

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| 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 supported  learning materials. |

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

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| 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:**

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| 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 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. |

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

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

**25. References:**

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| Required book (s), assigned reading and audio-visuals:  Duffy and McDonald (2011). Teaching and Learning with Technology, Fourth Edition, Pearson. ISBN-13: 9780138007966 - Optional Clark, R.C. and Mayer, R.E. (2011). E-Learning and the Science of Instruction: Proven Guidelines for Consumers and Designers 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:**

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| - 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 |

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

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

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

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

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