

Faculty of Computers and Information Technology

E-Learning

Information :

Course Code : DM261

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Faculty of Computers and Information Technology

Area Of Study :

Apply guidelines for optimal collaborative learning in synchronous and asynchronous e-learning.
Use modern techniques, up to date methods and tools to identify the promises and potential pitfalls of e-learning.
Identify and apply the best practices regarding program and learner control navigational options.
Distinguish among three metaphors of learning (response strengthening, information acquisition, and knowledge construction).
Identify three principles from cognitive science (dual channels, limited capacity, and active processing).
Critique an e-learning game based on evidence-based design principles.
Understand How e-Lessons Affect Human Learning.
Distinguish between behavioral and psychological engagement and identify instructional methods associated with each.
Evaluate an e-learning lesson for its evidence-based use.
Identify situations in which principles regarding best use of text, audio, and graphics do and do not apply (boundary conditions).
Design an e-learning lesson to teach domain-specific critical thinking skills

Description :

Development and deployment of successful e-learning systems; the advantages as well as the possible pitfalls of e-learning ; Different means of delivering e-learning and the advantages and disadvantage associated with each; intelligent tutoring systems; adaptive hypermedia; and user modeling; evaluation and maintenance of an e-learning system

Course outcomes :

a.Knowledge and Understanding: :

1 -	Identify the promises and potential pitfalls of e-learning
2 -	Identify three principles from cognitive science (dual channels, limited capacity, and active processing)
3 -	Identify situations in which principles regarding best use of text, audio, and graphics do and do not apply (boundary conditions).
4 -	Identify and apply the best practices regarding program and learner control navigational options

b.Intellectual Skills: :

1 -	Distinguish among three metaphors of learning (response strengthening, information acquisition, and knowledge construction).
2 -	Design an e-learning lesson to teach domain-specific critical thinking skills
3 -	Evaluate an e-learning lesson for its evidence-based use
4 -	Distinguish between behavioral and psychological engagement and identify instructional methods associated with each
5 -	Describe how e-Lessons affect Human Learning

c. Professional and Practical Skills: :

1 -	Apply six guidelines for optimal collaborative learning in synchronous and asynchronous e-learning
2 -	Critique an e-learning game based on evidence-based design principles

d. General and Transferable Skills: :

1 -	Acquire better work ethics through valuing individual effort and strictly prohibiting plagiarism
2 -	Improve team work skills
3 -	Enhance Oral communication skills
4 -	Enhance writing skills

ABET Course outcomes :

1 -	Apply guidelines for optimal collaborative learning in synchronous and asynchronous e-learning
2 -	Select techniques, methods and tools to identify the promises and potential pitfalls of e-learning
3 -	Identify and apply the best practices regarding program and learner control navigational options
4 -	Differentiate between three metaphors of learning (response strengthening, information acquisition, and knowledge construction)
5 -	Identify three principles from cognitive science (dual channels, limited capacity, and active processing)
6 -	Critique an e-learning game based on evidence-based design principles
7 -	Demonstrate adequate understanding of behavioral and psychological engagement and identify instructional methods associated with each
8 -	Evaluate an e-learning lesson for its evidence-based use
9 -	Design an e-learning lesson to teach domain-specific critical thinking skills

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Introducing the Course	4	2	2
e-Learning: Promise and Pitfalls	4	2	2
How Do People Learn from e-Courses?	4	2	2
Evidence-Based Practice	4	2	2
Applying the Multimedia Principle: Use Words and Graphics Rather Than Words Alone	4	2	2
Applying the Contiguity Principle: Align Words to Corresponding Graphics	4	2	2
Applying the Modality Principle: Present Words as Audio Narration Rather Than On-Screen Text	4	2	2
Applying the Redundancy Principle: Explain Visuals with Words in Audio OR Text: Not Both	4	2	2
Mid Term Exam	2		
Applying the Coherence Principle: Adding Material Can Hurt Learning	4	2	2
Applying the Personalization Principle: Use Conversational Style and Virtual Coaches	4	2	2

Course Topic And Contents :

Topic	No. of hours	Lecture	Tutorial / Practical
Applying the Segmenting and Pertaining Principles: Managing Complexity by Breaking a Lesson into Parts	4	2	2
Applying the Segmenting and Pertaining Principles: Managing Complexity by Breaking a Lesson into Parts			
Project presentation	4	2	2
Final Exam	2		

Teaching And Learning Methodologies :

Interactive Lectures including Discussions
 Practical Lab Sessions
 Self-Study (Reading Materials, Online Material, Presentations, Reports)
 Case Studies
 Brain Storming and Problem Solving

Course Assessment :

Methods of assessment	Relative weight %	Week No	Assess What
Final Exam	40.00	14	
Midterm Exam (s)	30.00	9	
Practical Exam	10.00		
Quizzes	10.00	3	
Team Work Projects	10.00		

Course Notes :

Course Notes are available with all the slides used in lectures in electronic form on Learning Management System (Moodle)

Recommended books :

William Horton, % Learning by Design- W Wiley Online Library, latest edition.