INNOVATION AND TECHNOLOGY IN TEACHING & LEARNING

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This course aims to prepare students with knowledge and skills related to technologies in education. By attending this course, students will be exposed to teaching and learning approaches such as face-to-face or online, e,g., flipped classroom, blended learning, MOOCs or learning communities. The main focus for this course is the acquisition of the domains of Educational Technology and underlying learning theories that anchored the design, development, implementation and evaluation of any learning materials. This course also emphasizes on students' ability to develop creative and innovative teaching and learning materials

Workload in hours: 120

Number of learners: 300

Mode of delivery: Blended

Status: IN PLANNING

Course public access: Private

Contributors:
Mohammad Hafiz Bin Zaini

Course learning outcome	Level	Weight
Explain the concepts related to innovation and technology, learning approaches, and learning theories that underlie the planning and development of media to support learning.	Understanding	40
Identify the concept of face-to-face learning, e-learning, blended learning, and MOOCs and plan the development of learning material based on the instructional design model.	Understanding	40
Develop learning materials as well as personal e-portfolio and evaluate materials based on accurate evaluation principles.	Creating	40
		Total weight: 120

Topic / Unit name	Workload	Learning type	Mode of delivery	Groups	Collaboration	Feedback	Mandatory activity	Assessment		
								Points	Type	Providers

Concept of Innovation and Educational Technology

Explain the concepts related to innovation and technology, learning approaches, and learning theories that underlie the planning and development of media to support learning. (**50%**)

Concept of Innovation and Educational Technology

Lecture and discussion on definitions and trends in innovation and technology in T&L	300 min	Acquisition	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Online readings/videos on disruptive innovation	300 min	Acquisition	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Short reflective writing in e-portfolio	300 min	Production	Hybrid	Synchronous	Teacher present	No	No	No	Yes	10	Formative	Teacher, Peer
Total unit workload	15h											

Learning Theories and Their Application in Technology Integration

Explain the concepts related to innovation and technology, learning approaches, and learning theories that underlie the planning and development of media to support learning. (**50%**)

Learning Theories and Their Application in Technology Integration

Lecture and tutorial on Behaviourism, Cognitivism & Constructivism	300 min	Acquisition	Hybrid	Synchronous	Teacher present	No	Yes	No	Yes	No		

Flipped classroom (UKMFolio resources)	300 min	Acquisition	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Individual e-portfolio reflection	300 min	Assessment	Hybrid	Synchronous	Teacher present	No	Yes	No	Yes	10	Formative	Teacher, Peer
Total unit workload	15h											

Instructional Design and Media Planning

Identify the concept of face-to-face learning, e-learning, blended learning, and MOOCs and plan the development of learning material based on the instructional design model. (**50%**)

Instructional Design and Media Planning												
Lecture on needs and contextual analysis, teaching strategies	360 min	Discussion	Hybrid	Synchronous	Teacher present	No	Yes	No	Yes	No		
Group brainstorming on multimedia design	360 min	Discussion	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Tutorial on instructional design models (ADDIE, ASSURE)	360 min	Assessment	Hybrid	Synchronous	Teacher present	Yes	Yes	No	Yes	20	Formative	Peer
Total unit workload	18h											

Technological Pedagogical Content Knowledge (TPACK)

Identify the concept of face-to-face learning, e-learning, blended learning, and MOOCs and plan the development of learning material based on the instructional design model. (**50%)**

Technological Pedagogical Content Knowledge (TPACK)

Lecture and group discussion on TPACK	240 min	Discussion	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Online tutorial on applying TPACK in designing lessons	240 min	Discussion	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Weekly e-portfolio reflection	240 min	Assessment	Hybrid	Synchronous	Teacher present	No	No	No	Yes	20	Formative	Peer, Self
Total unit workload	12h											

Digital Tools and Multimedia Development

Develop learning materials as well as personal e-portfolio and evaluate materials based on accurate evaluation principles. (**33%)**

Digital Tools and Multimedia Development

Hands-on workshop using Web 2.0 tools (Powtoon, Canva, Animaker)	480 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No	
Group project – developing multimedia animation/video	480 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No	

Individual creation of visual materials	480 min	Assessment	Hybrid	Synchronous	Teacher present	No	No	No	Yes	10	Formative	Self
Total unit workload	24h											

Emerging Technologies in Education

Develop learning materials as well as personal e-portfolio and evaluate materials based on accurate evaluation principles. (**33%**)

Emerging Technologies in Education												
Lecture and demo on AR, gamification, e-learning, m-learning	420 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Exploration using Blippar / Metaverse / Kahoot / Quizizz	420 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Reflection on the use of emerging technologies in classroom	420 min	Assessment	Hybrid	Synchronous	Teacher present	No	No	No	Yes	10	Formative	Peer, Self
Total unit workload	21h											

Evaluation and Reflection on Instructional Media

Develop learning materials as well as personal e-portfolio and evaluate materials based on accurate evaluation principles. (**34%**)

Evaluation and Reflection on Instructional Media												

Lecture and discussion on evaluation process	300 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Peer and self-evaluation of multimedia projects	300 min	Practice	Hybrid	Synchronous	Teacher present	No	No	No	Yes	No		
Group presentation and final e-portfolio submission	300 min	Assessment	Hybrid	Synchronous	Teacher present	No	No	No	Yes	10	Formative	Peer
Total unit workload	15h											
Total course workload	**120h**											