



Modernization and internationalization of Iranian HEIs via collaboration in TEL-based curriculum development in engineering and STEM

UNITEL e-course

Course content: Where we are on 19th July, 2022



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1. Course content

UNITEL e-course modules and topics: Slight modifications in titles still possible after discussions with Module coordinator			
MODULE 1: Orientation to the course and modern concepts of learning (Coordinator: P2 - UTU)		Responsible partner	At the moment
M1-1	Orientation to the course	P2 - UTU	Ready: materials in GoogleDocs
M1-2	The current state of Iranian higher education - Lessons learnt from the UNITEL Project survey (WP1)	P8 - UI	Outline in GoogleDocs Missing PPT and Video
M1-3	The concept, models and implementations of e-learning	P10 - SCU	Outline and PPT in GoogleDocs Missing Video
M1-4	Designing quality e-learning	P9 – UT → USGM	Ready: materials in GoogleDocs
M1-5	Process of e-Learning Design	P9 – UT → USGM	Missing PPT and Video
M1-6	Concluding remarks (topic discussed in more detail with the partners of the module)	P10 - SCU	Outline in GoogleDocs Missing PPT and Video
MODULE 2: Student-centered learning in practice and in STEM (Coordinator: P3 - UAb)			
M2-1	How to build learner-centered e-learning	P10 - SCU	Outline and PPT in GoogleDocs Missing Video
M2-2	Engaging and motivating students with real-world problems in STEM teaching	P5 - IKIU	18 min video combining M2-2,3 and 5 consisting of cases linked to topic
M2-3	Student engagement and motivation through voluntary subject choice and flexibility in STEM teaching	P5 - IKIU	18 min video combining M2-2,3 and 5 consisting of cases linked to topic

M2-4	Building and utilizing community and collaboration in e-learning	P2 - UTU	Ready: materials in GoogleDocs
M2-5	Case example(s) of online implementations of STEM	P5 - IKIU	18 min video combining M2-2,3 and 5 consisting of cases linked to topic
M2-6	Open educational resources (OER) and MOOCs in online oriented STEM teaching	P3 - UAb	No contents
MODULE 3: Methods and tools of technology enhanced learning (TEL) (Coordinator P1 - USGM)			
M3-1	Building the cornerstones: Teamwork and IT support in universities	P6 - USB	No contents
M3-2	Web applications, tools and programs – examples and practices	P6 - USB	Storyboard, lecture notes and PPT ready Video missing
M3-3	Activating methods and online tools to enrich online learning	P6 - USB	PPT ready Video missing
M3-4	Pedagogical models of e-learning	P9 – UT → USGM	No contents
M3-5	Implementing advanced virtual learning (including virtual and remote labs)	P1 -USGM	Ready: materials in GoogleDocs
M3-6	Best practices of virtual and remote labs	P7 - SU	Outline in GoogleDocs Missing PPT and Video
MODULE 4: Cooperation with the industry and working life relevant skills (Coordinator: P2 - UTU)			
M4-1	Generic skills of STEM experts (21st century skills)	P6 - USB	Outline in GoogleDocs Missing PPT and Video
M4-2	University-Business collaboration: An overview and some examples	P8 - UI	Outline in GoogleDocs Missing PPT and Video

M4-3	University's Technology Transfer (TT) strategies and ecosystems in European and Iranian universities	P2 - UTU	Outline in GoogleDocs Missing PPT and Video
M4-4	Embedding Enterprise in the Curriculum I: Internships, alumni speakers, company visits etc.	P2 - UTU	Outline in GoogleDocs Missing PPT and Video
M4-5	Embedding Enterprise in the Curr. II: Joint Masters' thesis at companies, project assignments etc.	P7 - SU	Outline and Lcture Notes in GoogleDocs Missing PPT and Video
M4-6	Cooperation in engineering (The title can be modified)	P7 - SU	Outline in GoogleDocs Missing PPT and Video
MODULE 5: Assessment and feedback as a part of teaching and learning (Coordinator: USGM)			
M5-1	Lessons learnt from the national survey in Iran: Student opinions (WP1) on the role assessment	P10 - SCU	Outline in GoogleDocs Missing PPT and Video
M5-2	(A framework for digital assessment) including Self-evaluation and peer evaluation	P3 - UAb	Outline and Lecture Notes in GoogleDocs Missing PPT and Video
M5-3	Plagiarism detection	P8 - UI	Outline in GoogleDocs Missing PPT and Video
M5-4	Learning analytics	P1 -USGM	Ready: materials in GoogleDocs
M5-5	Electronic exams	P1 -USGM	Ready: materials in GoogleDocs
M5-6	Automatization of feedback	P1 -USGM	Ready: materials in GoogleDocs
MODULE 6: Modernization of teaching (Coordinator: P3 - UAb)			

M6-1	Strategies and policies supporting development	P5 - IKIU	Outline in GoogleDocs Missing PPT and Video The Slides are not focussed on Module's topic
M6-2	Quality assurance (QA) standards of e-learning	P3 - UAb	No contents
M6-3	Degree evaluation	P3 - UAb	No contents
M6-4	How to utilize feedback as a source of development	P8 - UI	Outline in GoogleDocs Missing PPT and Video
M6-5	Curriculum development	P7 - SU	Outline in GoogleDocs Missing PPT and Video
M6-6	Staff development as a tool for development	P9 – UT → UTU	No contents