



Institution: TIRASPOL STATE UNIVERSITY (TSU)

Course Description

Module Handbook

COURSE: DIGITAL TECHNOLOGIES FOR TEACHING



<p>Aims and Learning Objectives:</p>	<p>Across the last years, the use of ICT have become commonplace entities in all areas of our life. Recently there has been an increase of interest in how technology can best be handled to increase the proficiency and efficacy of education at all levels and in both formal and nonformal settings.</p> <p>Efficacious use of ICT in today's classrooms has a vital influence in quality and accessibility of education. The ICT has opened new fields for teaching and learning.</p> <p>This course aims to develop competences for the use of ICT tools in education for:</p> <ul style="list-style-type: none">• Improving the quality of education;• Expanding teacher-student communication;• Adjusting courses to the requirements of modern education, including digital requirements;• Promoting open education. <p><u>Objectives of the course:</u></p> <p>At the end of this course, the learners will be able to:</p> <ul style="list-style-type: none">• Design their own course from the perspective of constructivist pedagogy, using the Backward model;• Identify the education resources and tools needed when organizing e-learning activities;• Integrate themselves in the virtual educational environment (including Moodle, Office 365);• Utilize the algorithms of organizing educational processes carried out on the basis of digital technologies;• Select and use adequate communication models during courses, according to contingent, domain, initial training level and other factors;• Use specialized digital equipment, recently developed by the companies in the field;• Look for, identify, select and learn how to use digital learning resources in local networks, as well as secure locations for storing them;• Create, edit, store and distribute educational resources in various formats, including multimedia and interactive;• Design and implement various strategies and methods of assessment;• Implement assessment methods that can benefit teaching practices and learning experience;• Align learning outcomes with online assessments methods;• Develop student-centered online assessment;• Know a range of tools for online assessment;
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	<ul style="list-style-type: none"> • Choose the adequate digital environment for delivering the course; • Manage effectively the chosen digital environment; • Upload digital educational resources, adequate for the course, to the digital environment; • Organize and control informational fluxes within the course. <p><u>Learning outcomes:</u></p> <ul style="list-style-type: none"> • Skills to design a course using the Backward model; • Design ICT-based educational resources; • Skills to integrate themselves in the virtual educational environment; • Skills to use specialized digital equipment for a certain educational scenario; • Effectively organize teaching in any educational environment (traditional class, blended learning, online) applying ICT; • Skills to use specialized digital equipment in educational process; • Design and development of E-course .
<p>Target Audience</p>	<p>The course is relevant to:</p> <ul style="list-style-type: none"> ✓ University teachers involved in continuing education; ✓ Lyceum teacher, school teacher and college teachers; ✓ Teachers of mathematics and informatics; ✓ Managers of Educational Institutions and correctional institutions; ✓ Tutors from inclusive schools.
<p>Duration and estimated workload of course</p>	<p>The course consists of 4 modules. The expected workload is about 50 hours a week.</p> <p>The course lasts for about 6 weeks.</p> <p>Number of ECTS awarded: 10 ECTS</p>
<p>Assessment and Certification</p>	<p>Evaluation will be via individual work assessment activities and group work assessment activities. The assessment activities are designed to check comprehension of the contents studied in each module and are focused to promote social motivation, to enhance student’s learning and to reflect on learners own practice abilities.</p> <p>There will be 2 peer assessment activities in Modules 1 where participants have to submit a table similar of Backward model on their own course designs and provide informal feedback to their peers’ learning designs. The design should include the pedagogical strategies, resources and tools used in the course. Participants then have to investigate the designs of their peers and write analysis for each based on a set of rubrics.</p> <p>For Modules 2, 4 the students have to develop a One Note course using SWAY and multimedia content, a Smart presentation, an educational video lesson. Also, they should store all developed content in OneDrive.</p> <p>In the Module 3 will be 2 group work activities where the learners will write solutions of solving the issue of teams finishing at different</p>



	rates and resolving differences in technical abilities. Also will be 4 individual activities where participants will demonstrate their abilities of using different tools for assessment.
Module Overview	<ol style="list-style-type: none"> 1. Design of e-Learning course 2. ICT in active learning 3. Assessment through ICT 4. Delivery of on-line courses
Ongoing activities	Participants will create an interactive online course in Moodle or Office 365. They will use the following ICT tools for online course: Office 365, Smart Notebook, Google Forms, ProProfs, Plickers, TestMoz, Fast Stone Capture, Camtasia, Ezvid.com etc.

Overview Modules

Module Number: 1	Description
Module Title:	DESIGN OF E-LEARNING COURSE (Andrei Braicov)
Objectives:	<ul style="list-style-type: none"> • To understand current trends in education and to recognize their possible effects; • To realize different contexts in which learning takes place; • To analyze and use educational models; • To design personal course from the perspective of constructivist pedagogy, using the Backward model; • To identify the education resources and tools needed when organizing e-learning activities; • To manage learning environments and teaching technologies for lessons.
Content to be covered	<ul style="list-style-type: none"> • The basic concepts of ICT and e-Learning. http://moodle.ust.md/file.php/123/Modulul_1_1_slide.pdf • Designing learning through ICT http://moodle.ust.md/file.php/123/Module_2_ICT.pdf • Electronic course design http://moodle.ust.md/file.php/123/Modulul_1_3.pdf • Quality standards of an e-Learning course http://moodle.ust.md/mod/resource/view.php?inpopup=true&id=2798
Activities	<ul style="list-style-type: none"> • Reflection and discussion about the most important problem in e-learning



	<ul style="list-style-type: none"> • Group work: applying of Backward model. • Individual work. http://moodle.ust.md/file.php/123/Modulul_1_3_Sarcina1.pdf • Workshop: use hardware and software in e-Learning. http://moodle.ust.md/mod/assignment/view.php?id=2952
Assessment	<ul style="list-style-type: none"> • Design of own course using the Backward model • Summative Assessment through Moodle
Workload	<ul style="list-style-type: none"> • 2,5 ECTS

Module Number: 2	Description
Module Title:	ICT IN ACTIVE LEARNING (Sergiu Corlat, Angela Globa)
Objectives:	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Identify elements of learning process, which can be improved by using ICT; • Use simple authoring tools (from Office 365 for Education) to create own digital educational resources in a variety of formats; • Know the basic techniques for recording and editing images, sounds, video data in order to use them in educational scopes; • Select the most appropriate digital equipment to reach educational goals; • Organize in the correct mode the course / module structure and activities depending of used ICT tools.
Content to be covered	<ul style="list-style-type: none"> • Services Office 365 for Education – General presentation Office applications in Cloud http://moodle.ust.md/file.php/123/OFFICE_365_topic_01.pdf • Course management using OneNote and Class Notebook http://moodle.ust.md/file.php/123/Office_365_Topic_02.pdf • Development of multimedia educational resources – SWAY application http://moodle.ust.md/file.php/123/TM_Office_365_Topic_03.pdf http://moodle.ust.md/file.php/123/Sway.pdf • Simple educational video production: software and hardware tools http://moodle.ust.md/file.php/123/Proiect_ezvid.mp4



	<ul style="list-style-type: none"> • SmartBoard in education http://moodle.ust.md/file.php/123/TI_1_Instalare_SMART_Notebook.pdf http://moodle.ust.md/file.php/123/TI_2_Interfata_de_baza.pdf http://moodle.ust.md/file.php/123/TI_3_Crearea_si_gestionarea_paginilor.pdf http://moodle.ust.md/file.php/123/TI_4_crearea_obiectelor_de_baza.pdf http://moodle.ust.md/file.php/123/TI_8_Crearea_si_prezentarea_activitatilor.pdf • Digital data storage and distribution solutions https://www.youtube.com/watch?v=pon2YTzJYcU
Activities	<ul style="list-style-type: none"> • Development of course structure in OneNote • Development of personal digital content in SWAY • Production of multimedia educational resources, integration in SWAY • SmartNotebook instalation • Development of personal digital content in SmartNotebook • Development a file management system in OneDrive
Assessment	<ul style="list-style-type: none"> • Presentation of course, developed in One Note, using SWAY and multimedia content. • Submit presentation of smart notebook and lection video. • Presentation of the file system developed in OneDrive
Workload	<ul style="list-style-type: none"> • 2,5 ECTS

Module Number: 3	Description
Module Title:	ASSESSMENT THROUGH ICT (Andrei Braicov, Tatiana Veverița)
Objectives:	<ul style="list-style-type: none"> • Revise the main concepts of evaluation; • Explain the role of ICT in evaluation; • Explain the trends of evaluation and their possible effects; • Understand the difference between computer assisted and computer adaptive testing; • Integrate computer-assisted tools into educational environment; • Revise different contexts in which the evaluation takes place; • Design and create an e- portfolio; • Understand and explore cloud solutions for evaluation; • Create tests/ quizzes/rubrics using online and offline software tools;



<p>Content to be covered</p>	<p><i>Evaluation of learners using ICT</i></p> <ul style="list-style-type: none"> • Designing an ICT based Evaluation http://moodle.ust.md/file.php/123/Evaluare_F.pdf • Creating and managing e-Portfolios http://moodle.ust.md/file.php/123/e_Portofolii.pdf <p><i>Cloud Web Solutions for e-Assessment</i></p> <ul style="list-style-type: none"> • Generating online tests with TestMoz http://moodle.ust.md/file.php/123/Testmoz.pdf • Creating quizzes in Google Forms http://moodle.ust.md/file.php/123/e_Google_forms.pdf • Evaluation with Moodle tools http://moodle.ust.md/file.php/123/Teach_Me_Moodle.pdf • Mobile equipments and technology for evaluation https://www.plickers.com/
<p>Activities</p>	<ul style="list-style-type: none"> • Explain the necessary conditions for a successful design of e-evaluation; • Reflect on the role of team peer evaluation; • Create the personal e-portofolio; • Create a form in Google Forms; • Create a quiz in TestMoz; • Create a quiz in Moodle; • Create a quiz in ProProfs; • Explore Plickers to collect real-time formative assessment data.
<p>Assessment</p>	<ul style="list-style-type: none"> • Peer assessment and feedback. Self assessment. • Elaboration of two evaluation tests: <ul style="list-style-type: none"> ✓ one developed in Moodle; ✓ the second - created with cloud tools. • Presentation of the career e-portfolio.
<p>Workload</p>	<ul style="list-style-type: none"> • 2,5 ECTS



Module Number: 4	Description
Module Title:	DELIVERY OF ON-LINE COURSES (Sergiu Corlat)
Objectives:	Students will be able to: <ul style="list-style-type: none">• Classify didactic interaction models (professor – student) in digital media• Identify the typology of online courses• Select efficient models of on-line courses organization, depending of content complexity, target group, pre-course competences, etc.• Develop the scheme of course activities, model of resources distribution, assessments, communication
Content to be covered	<ul style="list-style-type: none">• Communication models and tools in online learning http://moodle.ust.md/file.php/123/TIC_comunicare_curs.pdf• On-line courses. Delivery formats. http://moodle.ust.md/file.php/123/Livrare_extins.pdf• Transition from traditional to on-line or mixed course https://www.youtube.com/watch?v=Qjg7BeAkXNE https://www.youtube.com/watch?v=vj2hr9BxnG8&feature=youtu.be
Activities	<ul style="list-style-type: none">• The on-line (mixed) course structure preparation (content, activities, assessments) in digital form (Office, Google, Moodle)• The development of the communication model for on-line / mixed course
Assessment	<ul style="list-style-type: none">• Public presentation of developed course and communication model.
Workload	<ul style="list-style-type: none">• 2,5 ECTS