

SYLLABUS

1. Information about the study program

1.1 Institution	Technical University of Cluj-Napoca
1.2 Faculty	Faculty of Automation and Computer Science
1.3 Department	Automatica
1.4 Field of study	Systems Engineering
1.5 Cycle of study	Bachelor of Science
1.6 Program of study/Specialization	Automation and Applied Informatics (English)
1.7 Form of education	Full-time
1.8	

2. Information about the subject

2.1 Subject name	Computer Assisted Training	Subject code	204.00
2.2 Course responsible/lecturer	conf. dr. psih. Ionut-Dorin Stanciu ionut.stanciu@dppd.utcluj.ro		
2.3 Teachers in charge of seminars	conf. dr. psih. Ionut-Dorin Stanciu ionut.stanciu@dppd.utcluj.ro		
2.4 Year of study	3	2.5 Semester	1
2.6 Assessment	C		
2.7 Subject category	Formative category		DC
	Optionality		DFac

3. Estimated total time

Number of hours per week	2	of which	3.2 Course	1	3.3 Seminar	1	3.3 Laboratory	-	3.3 Project	-
Total hours in the curriculum	28	of which	3.5 Course	14	3.6 Seminar	14	3.6 Laboratory	-	3.6 Project	-
3.7 Individual study:										
(a) Textbooks, lecture material and notes, bibliography									7	
(b) Supplementary study in the library, online and in the field									7	
(c) Preparation for seminars/laboratory works, homework, reports, portfolios, essays									1	
(d) Tutoring									5	
(e) Exams and tests									2	
(f) Other activities									-	
3.8 Total hours of individual study (sum (3.7(a)...3.7(f)))									22	
3.9 Total hours per semester (3.4+3.8)									50	
3.10 Number of credit points									2	

4. Pre-requisites (where appropriate)

4.1 Curriculum	-
4.2 Competence	Baccalaureate level of instruction and basic computer literacy. Specific teacher training program knowledge corresponding to previous instruction years.

5. Requirements (where appropriate)

5.1 For the course	Auditorium or large lecture room. Audio-video installation for on-screen presentations (with room speakers). WiFi or cable Internet connectivity.
5.2 For the applications Seminar / Laboratory / Project	Auditorium or large lecture room. Audio-video installation for on-screen presentations (with room speakers). WiFi or cable Internet connectivity.

6. Specific competences

Professional competences	C1. Carrying out specific educational activities in the pre-university educational process. C2. Assessment of the learning processes, outcomes and progress achieved by pupils. C3. Managerial approach of the pupil group, of the educational process and of the target group's age-specific learning activities or social integration activities.
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Cross competences	CT1. Implementation of the principles and norms of professional deontology, based on explicit value options, specific to the educational sciences professionals. CT2. Effective cooperation in interdisciplinary professional teams, specific to the development of educational science projects and programs. CT3. Use of effective lifelong learning methods and techniques for continued education and professional development.
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7. Expected learning results

Knowledge	Studentul (candidat la profesia didactica) -explains core concepts of computer-supported learning/instruction (digital mediation, interaction, feedback loops, blended/online formats) to ground design decisions in face-to-face, blended, and online course delivery. -distinguishes types of digital learning environments (LMS/VLE, videoconferencing, collaborative tools, authoring tools) and their pedagogical affordances/constraints when selecting platforms and toolsets for specific learning goals. -describes how learning principles (practice, feedback, cognitive load, motivation) translate into technology-supported instruction for evidence-based instructional choices with technology. -explains conditions for effective online collaboration (roles, coordination, accountability, social presence) in facilitating teamwork and discussion in digital/hybrid learning. -explains assessment and feedback in digital settings (formative vs summative, rubrics, feedback channels, traceability) in platform-mediated courses and learning activities. -identifies common barriers to participation (access, digital skills, language, disability, cultural expectations) and inclusion principles for equitable participation in diverse cohorts and settings. -explains ethical and regulatory basics for educational technologies (privacy, data protection, consent, copyright) in responsible use of platforms, student data, and digital resources. -describes principles of selecting and curating digital resources (quality, alignment, accessibility, reliability) when recommending/using resources appropriate to learners and objectives. -explains how to interpret basic learning evidence from digital activity (completion, engagement traces, submissions) in monitoring progress and adjusting instruction using observable indicators.
Skills	Studentul (candidat la profesia didactica) -designs technology-supported learning activities aligned with objectives, learner needs, and constraints in face-to-face, blended, or online lesson/unit/course implementation. -creates pedagogical resources using digital technologies (multimedia materials, interactive tasks) to improve learner experience when preparing instruction and materials for platform-supported learning. -integrates online learning environments and platforms into instruction in a purposeful way in LMS-based course organization and synchronous/asynchronous orchestration. -facilitates online and hybrid interaction (discussion, collaboration, peer learning) using structured tasks and norms in supporting engagement and cooperation in digital spaces. -provides clear, respectful, coherent feedback through digital channels, balancing praise and critique in formative evaluation and learner support online. -uses digital assessment methods (assignments, quizzes, rubrics, submission workflows) to diagnose needs and track progress in monitoring achievement and documenting learning outcomes. -adapts instructional communication (clarity checks, re-explanations, multiple representations) for digital contexts in ensuring comprehension across channels and learners. -manages participation and conduct in digital spaces by applying rules, routines, and appropriate interventions in maintaining discipline, safety, and engagement online/hybrid. -collaborates with colleagues/technical/support staff to identify needs and improve technology-supported instruction in resolving implementation issues and improving instructional systems. -troubleshoots common, low-risk technical issues and implements contingency plans in sustaining instructional continuity during technical failures.
Responsibility and autonomy	Studentul (candidat la profesia didactica) -acts responsibly to protect learners' safety, privacy, and dignity when using digital tools and platforms in platform use, recordings, communications, and data handling. -adheres to institutional policies and legal/regulatory requirements relevant to educational technologies in course delivery, assessment workflows, and resource sharing. -ensures fair and inclusive participation by anticipating access and accessibility barriers in equitable design for diverse cohorts and accommodations. -maintains professional communication and appropriate boundaries in digital interactions in messaging, forums, videoconferencing, and feedback exchanges. -monitors and improves their own digital-pedagogical practice through reflection and feedback-seeking in

	continuous professional development. -keeps up to date with relevant research, tools, and regulations affecting computer-supported instruction in ongoing adaptation to platform, practice, and policy changes. -applies judgment in selecting tools and resources, prioritizing pedagogical value over novelty in responsible adoption under real constraints. -escalates appropriately by seeking support when issues exceed their competence (technical, ethical, or wellbeing-related) in collaboration with IT/support services, counselling, and leadership.
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8. Discipline objectives (resulting from the *key competencies gained*)

7.1 General objective	To provide the course graduate with a set of competencies, skills and level of knowledge about him/herself which allows the formation of a competitive advantage and to provide to course graduate with a better understanding of his/her current academic status and curriculum.
7.2 Specific objectives	To facilitate domain-specific learning and knowledge acquisition by providing a larger perspective on CSL. To be able to identify and use psychological insights and instructional strategies in the utilisation and instructional design of CSL

9. Contents

8.1. Lecture (syllabus)	Number of hours	Teaching methods	Notes
Frameworks and strategies: The European Framework for Digital Literacy; European Computer Driving License; European Framework for the Digital Competence of Educators.	2	Interactive / participatory lectures. Problem-solving; debating; case studies; role play Inquiry learning;	-
Pedagogical underpinnings and introduction to CSL: scaffolding, constructivism, connectivism	2		
Pedagogical underpinnings and introduction to CSL: digital competencies, the TPACK model	2		
Fundamentals of designing technology-augmented instructional technologies. - technology acceptance. Models of TA: - The utilitarian approach; - The hedonic approach	2		
Fundamentals of designing technology-augmented instructional technologies. - UX and usability (learnability and ease of use)	2		
Opportunities, means, and methods of online learning: Learning Management Systems. Examples and descriptions. Characteristics and functionalities of LMSs. The MOOCs phenomenon.	2		
Overview and exam preparation.	2		
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<https://books.google.ro/books?id=BuneDwAAQBAJ>

8.2. Seminar /Laboratory/Project	Number of hours	Teaching methods	Notes
Introduction to CSL and theoretical underpinnings -Digital competencies and digital literacy. -CSL-specific methods of instruction, learning, and assessment	2	Interactive / participatory lectures. Problem-solving; debating; case studies; role play Inquiry learning;	-
Frameworks and strategies. European Framework for Digital Literacy. -European Computer Driving License. Simulations -European Framework for the Digital Competence of Educators. Simulations	2		
Fundamentals of designing technology-augmented instructional technologies. - technology acceptance. Models of TA. -The utilitarian approach -The hedonic approach - UX and usability (learnability and ease of use) - Presentation of eLearning tools (MS Teams, Moodle, KB, Zoom, Cisco Webex, Google Classroom, etc.)	2		
Fundamentals of e-Learning. -Definitions and approaches to eLearning. Types and characteristics (hybrid and blended; synchronous vs asynchronous) Major paradigms in educational technology -“Adaptive Control of Thought – Rational” (ACT-R) Architecture	1		
Means and opportunities for online instruction and learning -Learning management systems. Examples and description. -Characteristics and features/functionality. MOOCs. Overview and analysis.	3		
Analysis approaches in eLearning. Introduction to Social Network Analysis: -SNA. Main components and parameters -SNA. Applications and examples	2		
Overview and assessment -Overview; Portfolio presentation and review	2		
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10. Alignment of course contents with the expectations of the community, professional associations, and potential employers

The skills sought to be acquired in this course pertain to:

- Being capable of understanding, designing and delivering evidence-based and scientifically sound technology-mediated and technology-enhanced instruction
- Being capable of collaborating with professionals, experts, and specialists from other disciplines in instructional tasks and activities that require or make use of various technologies

The course was designed to meet the requirements and contents of similar courses delivered in European Union universities, and the European Framework for Digital Literacy and the European Framework for the Digital Competence of Educators.

11. Evaluation

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Weight in the final grade
10.4 Course	Assessment criteria consider critical thinking, logic, soundness of reasoning and argumentation, problem-solving, adequacy, accuracy/precision, completeness, fluency, and relevance.	Written tests (e.g., quizzes, structured and/or unstructured critical analyses tests). Summative evaluation at the end of the semester.	50%
10.5 Seminar/ Laboratory/Project	Assessment criteria consider effectiveness of peer-collaboration, critical thinking, logic, soundness of reasoning and argumentation, problem-solving, adequacy, accuracy/precision, completeness, fluency, and relevance.	Individual and/or team/collaborative project portfolio consisting of structured and/or unstructured assignments.	50%
10.6 Minimum standard of performance			
The total weighed score exceeds the equivalent of 5/10 of the final grade.			
Each assessment exceeds 50% of the allotted grading.			

Date of filling in:		Title First Name Last Name	Signature
08.07.2026	Lecturer	conf. dr. psih. Ionut-Dorin Stanciu	-
	Teachers in charge of application	conf. dr. psih. Ionut-Dorin Stanciu	-

Date of approval in the department	Head of department
-	Prof. dr. ing. Honoriu Mugurel Valean
_____	_____
Date of approval in the faculty	Dean
-	Prof. dr. ing. Vlad Muresan
_____	_____