



MINISTERUL EDUCAȚIEI
UNIVERSITATEA „AUREL VLAICU” DIN ARAD
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SUBJECT SHEET

1. Program Data

1.1. Higher education institution	"AUREL VLAICU" UNIVERSITY OF ARAD
1.2. Faculty	of Exact Sciences
1.3. Department	Department of Mathematics and Computer Science
1.4. Field of study	Mathematics
1.5. Academic year	2024-2025
1.6. Cycle of studies	License
1.7. Specialization / Study Program	Computer Science Mathematics
1.8. Form of education	Full-time education (IF)

2. Discipline Data

2.1. Name of the discipline	GICS6F22 Computer-Aided Training
2.2. Education Plan Holder	dr. Deac Dan-Stelian
2.3. Assistant	dr. Deac Dan-Stelian
2.4. Year of study	3
2.5. Semester	2
2.6. Type of assessment	ES
2.7. Discipline regime	Ace

3. Total estimated time (hours per semester of teaching activities)

3.1. Number of hours per week	2
3.2. Hours of classes per week	1
3.3. Seminar/laboratory/project hours per week	1
3.4. Total hours of the curriculum	28
3.5. Course hours per semester	14
3.6. Seminar/laboratory/project hours per semester	14
Time Pool Distribution [Hours]	
3.4.1. Study by textbook, course material, bibliography and notes	7
3.4.2. Additional documentation in the library, on specialized electronic platforms and in the field	8
3.4.3. Preparation of seminars/laboratories, assignments, papers, portfolios and essays	7
3.4.4. Tutoring	0
3.4.5. Examinations	4
3.4.6. Other activities ...	0
3.7. Total hours of individual study	22
3.8. Total hours per semester	50
3.9. Number of credits	2

4. Preconditions (where applicable)

4.1. Curriculum prerequisites	<p>Going through the psycho-pedagogical training subjects, mandatory fundamentals</p> <ul style="list-style-type: none">- Educational psychology,- Pedagogy I - Pedagogical foundations; Theory and methodology of the curriculum- Pedagogy II - Theory and methodology of training; Theory and methodology of assessment Completion of the teaching training subject(s) - compulsory- Didactics of specialty A
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	- Didactics of specialty B
4.2. Competence preconditions	a. Professional - cognitive and functional - actional; b. Complementary - lingvy, digital c. Transversal - role, personal and professional development d. Managerial - leadership, guidance and control

5. Necessary conditions (where applicable)

5.1. Conditions for the course	Room equipped with video projector, computers and appropriate software – Microsoft Office
5.2. Conditions for the seminar	Laboratory equipped with computers and appropriate software - Microsoft Office
5.3. Conditions for conducting the laboratory	
5.4. Conditions for carrying out the project	

6. Specific competences acquired (where applicable)

6.1. Professional competences	<ul style="list-style-type: none"> • CP1. Understanding, analysis, synthesis and evaluation of concepts related to CAI. • CP2. Explaining and valuing the notions of educational sciences through IAC • CP3. Application and transfer of knowledge from educational sciences in the development of IAC applications • CP4. Development of the communication component – face-to-face and remote (virtual) supported by IT – in order to strengthen the didactic/educational and managerial one; • CP5. Stimulating e-learning and IT-based creativity by adapting the requirements of transformative learning to technological possibilities. • CP6. Adaptability to the evolution of information technology and the acquisition of an appropriate, ethical, positive behavior, related to its use in educational situations; • CP7. Motivation for lifelong learning
6.2. Cross-cutting competency	<ul style="list-style-type: none"> • CT1. Developing students' autonomy and responsibility by acquiring and applying IT principles and professional ethics norms specific to the professional in educational sciences. • CT2. To form and develop the capacity to be open to the various social interactions in a globalized, diverse and multicultural world. • CT3. Efficient cooperation in professional, interdisciplinary work teams, specific to the development of projects and programs in the field of educational sciences; • CT4. To train the ability to establish one's own needs for professional and personal development by referring to the national and European framework of career development.

7. Objectives of the discipline (where applicable)

7.1. General objective of the discipline	Knowledge and application of IAC principles in education.
7.2. Specific objectives	<p>To develop an integrative vision on information didactics and its methods. To acquire the knowledge and skills necessary for a future teacher, in the use and integration of IAC in learning situations.</p> <p>Design of the didactic act through the prism of IAC and E-learning tools</p> <p>Elaboration of didactic projects and learning sequences in electronic format.</p> <p>Manifestation of a responsible and positive attitude towards the use of IT in the teaching profession</p>

8. Contents (where applicable)

8.1 Course Content	Teaching methods	Observations
1. IAC, method of information didactics a) The problem area of information didactics. Methods of informational didactics. IAC.b) Computer-aided training. Brief history, concept, becoming. c) The impact of IAC on education. Advantages and disadvantages.	Interactive Lecture, Heuristic Approach, Problemization, Algorithmization, Brainstorming, Reflection	3 hours
2. Designing and supporting the educational act through the IAC prism a) Drafting of the projects of didactic activities. b) Integration of presentations, simulations, tutorials, courseware, quizzes, and even educational games in the didactic project. c) Supporting sequences of teaching activities using mainly computer-assisted training.	Interactive Exposition, Demonstration, Brainstorming, Problemization, Algorithmization, Modeling, Exercise, Learning by Discovery, Case Study	7 hours
3. E-learning, a concept in the evolution of IAC a) E-learning.Meanings. b) Asynchronous E-learning tools. E-mail, ppt presentations, blog, discussion group, learning platform. c) Synchronous E-learning tools. Chat, forum, videoconference, collaborative writing.	Interactive Exhibition, Demonstration, Experiment, Modeling, Problemization, Algorithmization, Brainstorming	4 hours
8.2 Course Bibliography Adăscăliței, A., (2007); Computer Assisted Training, Polirom, Iași Boboilă C., (2006); Computer-aided training. Course notes and practical applications, Sitech Publishing House, Craiova Cucos, C" (2006); Computerization in Education, Aspects of Virtualization of Training, Polirom Publishing House, Iași Gheorghe, M., Tataram, M., Florea, M., (2005); Information and Communication Technology, Corint Publishing House, Bucharest Herlo, D., (2006); Didactics, Aurel Vlaicu University Publishing House, Arad Holotescu, C., Naaji, A., (2007); Web Technologies, Aurel Vlaicu University Publishing House, Arad Noveanu, E., Gliga, L., Voicu, A., Garabet, M., Pinte, R., Banciu, D., Brodman, J., Onea, E., Hudrea, M., Articulate Rapid E-Learning Studio; http://www.articulate.com/ ABOUT E-Learning; http://www.stvlusinc.com/WebEnable/learniiiL' solutions/elarning software.nhp ; UAV Learning Moodle Platform - www.uav.ro Deac D. Computer-Aided Training. Course and seminar notes. SUMS Platform		
8.3 Seminar Content	Teaching methods	Observations

1. Use of specialized software in the educational field: a. Microsoft Office application - Word, Excel, Power Point. b. Internet browser - Internet Explorer	Explanation, demonstration, problematization, algorithmization, exercise	4 hours
2. Design of computer-aided learning and evaluation sequences for the specialized discipline. a) Typesetting in Word of learning sequences; b) Making PowerPoint presentations to support learning sequences. c) Elaboration of spreadsheets in Excel. d) Development of evaluative quizzes	Explanation, Demonstration, Problematization, Algorithmization, Exercise, Project, Cooperative Learning	6 hours
3. Presentation and use of the UAV learning platform	Explanation, Demonstration, Problematization, Algorithmization, Exercise, Project, Cooperative Learning	4 hours
8.4 Seminar Bibliographies Adăscăliței, A., (2007); Computer Assisted Training, Polirom, Iași Boboilă C., (2006); Computer-aided training. Course notes and practical applications, Sitech Publishing House, Craiova Cucos, C" (2006); Computerization in Education, Aspects of Virtualization of Training, Polirom Publishing House, Iași Gheorghe, M., Tataram, M., Florea, M., (2005); Information and Communication Technology, Corint Publishing House, Bucharest Herlo, D., (2006); Didactics, Aurel Vlaicu University Publishing House, Arad Holotescu, C., Naaji, A., (2007); Web Technologies, Aurel Vlaicu University Publishing House, Arad Noveanu, E., Gliga, L., Voicu, A., Garabet, M., Pinte, R., Banciu, D., Brodman, J., Onea, E., Hudrea, M., Articulate Rapid E-Learning Studio; http://www.articulate.com/ ABOUT E-Learning; http://www.stvlusinc.com/WebEnable/learniiil/ solutions/elcarning software.nhp; UAV Learning Moodle Platform - www.uav.ro Deac D. Computer-Aided Training. Course and seminar notes. SUMS Platform		
8.5 Lab Content	Teaching methods	Observations
8.6 Laboratory bibliography		
8.7 Project Content	Teaching methods	Observations
8.8 Project Bibliography		

9. Corroborating/validating the contents of the discipline (where applicable)

In order to design this sheet, to select the contents, to choose the teaching/learning methods and the evaluation methods, the holders of the discipline organized virtual meetings with other teachers in the field, tenured in other higher education institutions, coordinators of similar programs. At the same time, there was a dialogue with representatives of the ISJ, in order to identify the needs and expectations of employers in the field on the minimum digital skills of future employees.

10. Assessment (where applicable)

Activity Type	Evaluation criteria	Evaluation methods	Weight of the final grade
10.1. Course	Knowledge and understanding Final practical test - face to face with the computer, for 20 minutes	Written paper Computer test	20% 40%
10.2. Seminar	Application of knowledge in the realization of the training portfolio Evaluation of the activity at the seminar	Tests along the way, grading the portfolio Attendance sheets and observation of student contributions	30% 10%
10.3. Laborator			
10.4. Project			
10.5 Minimum Performance Standard Minimum achievement of the work tasks during the teaching activities (course and seminar) realization of the individual training portfolio; designing a Word document containing a title and at least two phrases related to the title, as well as inserting a table with three columns and three rows, filled with data related to the title and written phrases; elaboration of three slides in PowerPoint, with color background, animated text and insertion of an image from the net, specifying the location of origin.			

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Dan-Stelian

Assistant dr. Deac
Dan-Stelian

DEPARTMENT DIRECTOR
Reader Popa Lorena

DEAN
Prof.univ.dr. Sorin-Florin NĂDĂBAN