



SYLLABUS

1. Study programme

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	Informatics
1.5. Study level	2024-2025
1.6. Study cycle	Bachelor
1.7. Study programme / Qualification	Computer Science
1.8. Form of education	Full – Time study

2. Course details

2.1. Name of the course	GLAS4010 Specialization Practice
2.2. Course coordinator	PhD. Crăciun Mihaela-Daciana
2.3. Seminar/laboratory/project coordinator	PhD. Crăciun Mihaela-Daciana
2.4. Study year	2
2.5. Semester	2
2.6. Evaluation type	EN
2.7. Course type	Ob

3. Estimated total time (hours per semester)

3.1. Hours per week	0
3.2. Lecture hours per week	0
3.3. Seminar/laboratory/project hours per week	0
3.4. Total hours per curriculum	0
3.5. Lecture hours per semester	0
3.6. Seminar/laboratory/project hours per semester	0
Time division [hrs]	
3.4.1. Independent study from textbooks, course support, bibliography and notes	0
3.4.2. Additional reading (libraries, specialized electronic platforms and field research)	0
3.4.3. Preparing of seminars/laboratories/projects, homework, papers, portfolios and essays	0
3.4.4. Tutorial coaching	0
3.4.5. Examinations	4
3.4.6. Other activities	0
3.7. Total individual study hours	120
3.8. Total hours per semester	120
3.9. Number of ECTS credits	2

4. Prerequisites (if applicable)

4.1. Curriculum related	
4.2. Competence related	

5. Conditions (if applicable)

5.1. for the lecture	
5.2. for the seminar	
5.3. for the laboratory	
5.4. for the project	

6. Specific educational objectives (competences to be acquired)

6.1. Professional competencies	C3.Using computer tools in interdisciplinary context; C5.Database design and database management;
6.2. Transversal competencies	CT1.Applying the rules of organized and efficient work, of responsible attitudes towards teaching-scientific field, to value the own creative potential, while respecting the principles and norms of professional ethics. CT2.Efficient conduct of the activities organized in an inter-disciplinary group and developing the personal communication skills, networking and collaboration with various groups; CT3.Using of efficient methods and techniques for learning, informing, research and development of the capacity to value knowledge, adapting to the requirements of a dynamic society and communicating in English and in an Internationally widespread language

7. Course outcomes (resulting from the specific educational objectives to be acquired)

7.1. General outcomes	<ul style="list-style-type: none"> - to complement the training of future specialists with practical issues to enable them to make a rapid transition and adapt appropriately in their future professional activity; - ensuring a judicious correlation between the knowledge acquired in lectures, seminars, laboratory work and practical activities; - deepening the theoretical knowledge acquired in the teaching activity, making connections between the phenomena studied; - contact with the practical aspects of an IT department/ to introduce the student to the atmosphere in general and secondary schools - stimulating students' creativity; - educating students and developing their social responsibilities.
7.2. Specific outcomes	- The student is able to practically apply the theoretical knowledge acquired in the training program.

8. Outline (if applicable)

8.1 Lecture Outline	Teaching methods	Remarks
8.2 Lecture References		
8.3 Seminar Outline	Teaching methods	Remarks
8.4 Seminar References		
8.5 Laboratory Outline	Teaching methods	Remarks
8.6 Laboratory References		
8.7 Project Outline	Teaching methods	Remarks
Making a computer project or program		
1. Presentation of the topic (problem statement) to be treated/solved and setting tasks for team members (if working in a team).	-Exposition: description, explanation, dialogic lecture, lectures with opponents, team lectures.	
2. Development of detailed project specifications.	- Conversation: heuristic conversation, debate, dialog, knowledge- fixing and consolidation conversations, knowledge systematization and synthesis, application conversations.	
3. Project analysis: identifying entities, relationships; usage scenarios; data context and data flow diagrams.	- Algorithmization: solution algorithms; creation algorithms.	

4. Design: conceptual data model; logical data model; processing design; physical data model; user interface; application architecture.	- Algorithmization: solution algorithms; creation algorithms.	
5. Implementation and testing of the developed applications, made available together with the documentations elaborated during the phases of development in the department's network.	- Problematization: using problem questions, problems and problem situations.	
6. Presentation of the project for evaluation.	- Discovery: directed and independent rediscovery, creative discovery, discovery through documentation, experimental discovery.	
8.8 Project References Documents in electronic format or other documentation provided by the placement coordinator or made available by the placement partners.		

9. Correlation of course outline with the expectations of the epistemic community, professional associations and representative employers within the field of the program

The subject content is in line with the content of similar subjects in other university centers in the country and abroad. In order to better adapt the content of the subject to the requirements of the labor market, meetings were held with both employers - representatives of the business environment and mathematics and computer science teachers from the pre-university education in Arad.

10. Evaluation / Grading (if applicable)

Activity type	Evaluation criteria	Evaluation methods	Percentage of the final grade
10.1. Lecture			
10.2. Seminar			
10.3. Laboratory			
10.4. Project	<ul style="list-style-type: none"> - Acquisition of skills specific to the specialization - Effective in verbal communication - Ability to work in a team / establish good relationships - Desire to learn (to improve) - Ability to work independently 	<p>Written assessment: - practice portfolio - observation sheet</p> <p>Oral assessment: oral presentation of the internship project</p>	<p>70%</p> <p>30%</p>
10.5 Minimal performance standard Learning fundamental concepts, using specialized language, making a simple application.			

Course coordinator
Lect.univ.dr. Mihaela-Daciana
CRĂCIUN

Seminar/laboratory/project
coordinator
Lect.univ.dr. Mihaela-
Daciana CRĂCIUN

Head of the Department
Lect.univ.dr. Lorena Camelia POPA

Dean
Prof.univ.dr. Sorin-Florin NĂDĂBAN