

COURSE SYLLABUS

Academic year 2025 - 2026

1. Programme Information

1.1. Higher education institution	Lucian Blaga University of Sibiu
1.2. Faculty	Faculty of Science
1.3. Department	Mathematics and Informatics
1.4. Field of study	Informatics
1.5. Level of study ¹	Master
1.6. Programme of study/qualification	Cybersecurity

2. Course Information

2.1. Name of course	Practical activity	Code	FSTI.MAI.CS.M.SO .2.P.C-4.6
2.2. Course coordinator	Lecturer PhD. Cristina Cismas		
2.3. Seminar/laboratory coordinator	Lecturer PhD. Cristina Cismas		
2.4. Year of study ²	1	2.5. Semester ³	2
2.6. Evaluation form ⁴	C		
2.7. Course type ⁵	R	2.8. The formative category of the course ⁶	S

3. Estimated Total Time

3.1. Course Extension within the Curriculum – Number of Hours per Week				
3.1.a. Lecture	3.1.b. Seminar	3.1.c. Laboratory	3.1.d. Project	Total
-	-	-	-	0
3.2. Course Extension within the Curriculum – Total Number of Hours within the Curriculum				
3.2.a. Lecture	3.2.b. Seminar	3.2.c. Laboratory	3.2.d. Project	Total ⁷
-	-	-	-	0
Time Distribution for Individual Study⁸				Hours
Learning by using course materials, references and personal notes				5
Additional learning by using library facilities, electronic databases and on-site information				10
Preparing seminars / laboratories, homework, portfolios and essays				49
Tutorial activities ⁹				7
Exams ¹⁰				4
3.3. Total Individual Study Hours¹¹ (NOI_{sem})				75
3.4. Total Hours in the Curriculum (NOAD_{sem})				0
3.5. Total Hours per Semester¹² (NOAD_{sem} + NOI_{sem})				75
3.6. No. of Hours / ECTS				25
3.7. Number of credits¹³				3

4. Prerequisites (if needed)

4.1. Courses that must be successfully completed first (from the curriculum) ¹⁴	-
4.2. Competencies	-

5. Conditions (where applicable)

5.1. For course/lectures ¹⁵	There are no course activities. The practice takes place within software companies or in IT services from economic and social units, based on practice conventions
5.2. For practical activities (lab/sem/pr/app) ¹⁶	There are no practical activities. The practice takes place within software companies or in IT services from economic and social units, based on practice conventions

6. Learning Outcomes¹⁷

Number of credits assigned to the discipline: 4				
Learning outcomes				Credit distribution by learning outcomes
Nr. crt.	Knowledge	Skills	Responsibility and autonomy	
LO 1	The student identifies, explains, and apply the theory in specific situations of the economic and institutional environment	The student develops and demonstrates basic cybersecurity concepts	The student knows and implements IT security requirements.	2
LO 2	The student identifies, explain and interpret ideas, projects, processes.	The student develops and demonstrates basic cybersecurity concepts	The student knows and implements IT security requirements.	1
LO 3	The student uses programming languages and frameworks	The student develops and demonstrates basic cybersecurity concepts	The student knows and implements IT security requirements.	1

7. Course objectives (resulted from developed competencies)

7.1. Main course objective	<ul style="list-style-type: none"> Familiarization with the latest and most advanced knowledge developments in the IT field
1.1. Specific course objectives	<ul style="list-style-type: none"> Comparing new knowledge with traditional ones and the ability to establish relationships between them, in order to identify new directions for deepening knowledge and developing the profession.

8. Content

8.1. Lectures¹⁸	Teaching methods¹⁹	Hours
Total lecture hours:		0
8.2. Practical activities (8.2.a. Seminar ²⁰ / 8.2.b. Laboratory ²¹ / 8.2.c. Project ²²)	Teaching methods	Hours
Total seminar/laboratory hours:		0

9. Bibliography

9.1. Recommended Bibliography	Documents specific to the company and projects assigned in the internship
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9.2. Additional Bibliography	
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10. Conjunction of the discipline's content with the expectations of the epistemic community, professional associations and significant employers of the specific study program²³

The practice takes place within software companies or in IT services from economic and social units, based on practice conventions

11. Evaluation

Activity Type	11.1 Evaluation Criteria	11.2 Evaluation Methods		11.3 Percentage in the Final Grade	Obs. ²⁴
11.4a Exam / Colloquy	• Theoretical and practical knowledge acquired (quantity, correctness, accuracy)	Tests during the semester ²⁵ :	%	5% (minimum 5)	CEF
		Homework:	%		
		Other activities ²⁶ :	%		
		Final evaluation:	50%		
11.4b Seminar	• Frequency/relevance of participation or responses	Evidence of participation, portfolio of papers (reports, scientific summaries)		5% (minimum 5)	nCPE
11.4c Laboratory	• Knowledge of the equipment, how to use specific tools; evaluation of tools, processing and interpretation of results	• Written questionnaire • Oral response • Laboratory notebook, experimental works, reports, etc. • Practical demonstration		5% (minimum 5)	nCPE
11.4d Project	• The quality of the project, the correctness of the project documentation, the appropriate justification of the chosen solutions	• Self-evaluation, project presentation • Critical evaluation of a project		85% (minimum 5)	nCPE
11.5 Minimum performance standard ²⁷ Implementing the application with at least 30% of the functionalities, writing at least the first chapter (motivation, state of the art, specification of the paper's theme) and the second chapter (application design, choice of technologies and motivation of their choice)					

The Course Syllabus will encompass components adapted to persons with special educational needs (SEN – people with disabilities and people with high potential), depending on their type and degree, at the level of all curricular elements (skills, objectives, contents, teaching methods, alternative assessment), in order to ensure fair opportunities in the academic training of all students, paying close attention to individual learning needs.

Filling Date: |_0_|_8_| / |_0_|_9_| / |_2_|_0_|_2_|_5_|

Department Acceptance Date: |_0_|_9_| / |_0_|_9_| / |_2_|_0_|_2_|_5_|

	Academic Rank, Title, First Name, Last Name	Signature
Course Teacher	Lecturer PhD. Cristina Cismas	
Study Program Coordinator	Associated Professor PhD. Nicolae Constantinescu	
Department Head	Professor PhD. Mugur Acu	

¹ Bachelor / Master

² 1-4 for bachelor, 1-2 for master

³ 1-8 for bachelor, 1-3 for master

⁴ Exam, colloquium or VP A/R - from the curriculum

⁵ Course type: R = Compulsory course; E = Elective course; O = Optional course

⁶ Formative category: S = Specialty; F = Fundamental; C = Complementary; I = Fully assisted; P = Partially assisted; N = Unassisted

⁷ Equal to 14 weeks x number of hours from point 3.1 (similar to 3.2.a.b.c.)

⁸ The following lines refer to individual study; the total is completed at point 3.37.

⁹ Between 7 and 14 hours

¹⁰ Between 2 and 6 hours

¹¹ The sum of the values from the previous lines, which refer to individual study.

¹² The sum (3.5.) between the number of hours of direct teaching activity (NOAD) and the number of hours of individual study (NOSI) must be equal to the number of credits assigned to the discipline (point 3.7) x no. hours per credit (3.6.)

¹³ The credit number is computed according to the following formula, being rounded to whole neighbouring values (either by subtraction or addition

$$\text{No. credits} = \frac{\text{NOCpSpD} \times C_C + \text{NOApSpD} \times C_A}{\text{TOCpSdP} \times C_C + \text{TOApSdP} \times C_A} \times 30 \text{ credits}$$

Where:

- NOCpSpD = Number of lecture hours / week / discipline for which the credits are calculated
- NOApSpD = Number of application hours (sem./lab./pro.) / week / discipline for which the credits are calculated
- TOCpSdP = Total number of course hours / week in the Curriculum
- TOApSdP = Total number of application hours (sem./lab./pro.) / week in the Curriculum
- C_C/C_A = Course coefficients / applications calculated according to the table

Coefficients	Course	Applications (S/L/P)
Bachelor	2	1
Master	2,5	1,5
Bachelor - foreign language	2,5	1,25

¹⁴ The courses that should have been previously completed or equivalent will be mentioned

¹⁵ Board, video projector, flipchart, specific teaching materials, online platforms, etc.

¹⁶ Computing technology, software packages, experimental stands, online platforms, etc.

¹⁷ Competences from the Grids related to the description of the study program, adapted to the specifics of the discipline

¹⁸ Chapter and paragraph titles

¹⁹ Exposition, lecture, board presentation of the studied topic, use of video projector, discussions with students (for each chapter, if applicable)

²⁰ Discussions, debates, presentations and/or analyses of papers, solving exercises and problems

²¹ Practical demonstration, exercise, experiment

²² Case study, demonstration, exercise, error analysis, etc.

²³ The relationship with other disciplines, the usefulness of the discipline on the labour market

²⁴ CPE – Conditions Exam Participation; nCPE – Does Not Condition Exam Participation; CEF - Conditions Final Evaluation; N/A – not applicable

²⁵ The number of tests and the weeks in which they will be taken will be specified

²⁶ Scientific circles, professional competitions, etc.

²⁷ The minimum performance standard in the competence grid of the study program is customized to the specifics of the discipline, if applicable