COURSE SYLLABUS

Academic year 2025 - 2026

1. Programme Information

1.1. Higher Education Institution	**„Lucian Blaga" University of Sibiu**
1.2. Faculty	Faculty of Sciences
1.3. Department	Environmental Sciences, Physics, Physical Education and Sports
1.4. Field of study	Biology
1.5. Level of study [1]	Bachelor
1.6. Programme of study	Biology (in english)

2. Details about the course

2.1. Name of course	Phytosociology and vegetation of Romania		Code	FSTI.MFE.BIOEN.L.SO.3.2110.E-5.1	
2.2. Course coordinator	Biologist Maria Denisa Cocîrlea, PhD				
2.3. Seminar / laboratory coordinator	Biologist Maria Denisa Cocîrlea, PhD				
2.4. Year of study[2]	2	**2.5.** Semester[3]	1	**2.6.** Evaluation form [4]	E
2.7. Course type [5]	O	**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	3.1.e Other	Total
2	1	1			**4**
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	3.2.e Other	Total[7]
28	14	14			**56**

Time Distribution for Individual Study [8]	**Hours**
Learning by using course materials, references and personal notes	19
Additional learning by using library facilities, electronic databases and on-site information	16
Preparing seminars / laboratories, homework, portfolios and essays	17
Tutorial activities [9]	11
Exams[10]	6

3.3. Total Individual Study Hours [11] ***(NOSI$_{sem}$)***	**69**
3.4. Total Hours in the Curriculum (*NOAD$_{sem}$*)	**56**
3.5. Total Hours per Semester [12] **(*NOAD$_{sem}$* + *NOSI$_{sem}$*)**	**125**
3.6. No. of hours / ECTS	**25**
3.7. Number of credits[13]	**5**

4. Prerequisites (if needed)

4.1. Courses that must be successfully completed first (from the curriculum) [14]	Plant biology, Systematics of phanerogams, General ecology
4.2. Competencies	Identifying plant species using dichotomous keys, recognizing them in the field, using computers and specific software for data processing and presentation.

5. Conditions (wherever applicable)

5.1. For course/lectures [15]	laptop, interactive whiteboard display / computer and projector
5.2. For practical activities (lab/sem/pr/other) [16]	laptop, interactive whiteboard display / computer and projector, field data collection sheets, camera, plant determination book, GPS.

6. Learning outcomes [17]

Number of credits assigned to the discipline: 5				
Learning outcomes				Credit allocation based on learning outcomes
No.	Knowledge	Aptitudes	Responsibility and autonomy	
LO 1	The student/graduate describes, defines, and discusses fundamental principles in the field of biology, as well as interdisciplinary aspects (e.g., evolutionism, general ecology, plant physiology, animal physiology).	The student/graduate applies working methods using modern instruments/equipment and classical laboratory techniques to perform, design experiments, record and analyze appropriately the results obtained.	The student/graduate uses their own knowledge and experience to develop the scientific community and society in general by participating in professional and/or community activities	1.25
LO 2	The student/graduate correctly uses and explains the specific terminology used in the field of Biology, the main concepts and laws, the characteristics of biological systems from the perspective of the principles of organization and functioning of living matter.	The student/graduate defines, describes, discusses/presents the major concepts in the field of Biology.	The student/graduate demonstrates responsibility and autonomy in the use of scientific knowledge in the field of Biology, by conducting research, developing or improving concepts, theories, operational methods or biotechnological products, making ethical and professional decisions within the scientific process.	1.25
LO 3	The student/graduate defines, explains, and exemplifies basic and modern experimental techniques in the analysis and characterization of biological systems, records and presents experimental results, and explains the principles of scientific methods.	The student/graduate uses, investigates, and critically analyzes the principles of operation and use of equipment/instruments, techniques/working methods for investigating the functioning of biological systems.	The student/graduate applies the knowledge learned in other courses to explain the interactions of organisms with the environment.	1.25

LO 4	The student/graduate accurately applies fundamental concepts in the field of Biology in various contexts.		The student/graduate demonstrates negotiation, empathy, and assertive communication skills, leadership, teamwork, conflict management, team management, and public speaking skills.	1.25

7. Course objectives (resulted from developed competencies)

7.1. Main course objective	Knowledge and proper use of notions and concepts specific to phytosociology
7.2. Specific course objectives	Understanding and learning by students of the terms and principles specific to phytosociology, referring mainly to the structure, functions, dynamics, and classification of phytocenoses. Familiarization with the main plant associations present in the vegetation zones of Romania. Developing scientific communication skills through the use of terms specific to botany. Improving the ability to explore/investigate the plant world through knowledge and use of suitable materials and methods for its study.

8. Course description

8.1. Lecture[18]		**Teaching methods**[19]	**Hours**
Lecture 1	Basic concepts: - the subject of phytosociology; - characteristics of phytocoenoses; - definition of plant association; - differentiation between the concepts of "flora" and "vegetation";	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	3
Lecture 2	Functions of phytocoenoses	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	1
Lecture 3	Study of plant communities	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 4-6	Composition of phytocoenoses (biological, ecological, cenotic, economic categories of species)	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	6
Lecture 7	Phytopopulation and phytocenotic indices	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 8	Cenotaxonomy of plant groups	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 9	The dynamics of phytocenoses	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2

Lecture 10	Vegetation mapping	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 11	Vegetation areas in Romania	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 12	Vegetation layers in Romania	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 13	General characterization of Romania's vegetation	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Lecture 14	Phytocenotic interactions	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
		Total lecture hours:	**28**

8.2. Practical activities

8.2.a. Seminar		**Teaching methods [20]**	**Hours**
Seminar 1	Instructions before heading out into the field	Interactive lecture, explanation, conversation, problematization, use of interactive whiteboard	2
Seminar 2	Presentation of the area to be analyzed during the laboratory, with emphasis on its vertical structure	Explanation, problematization, interactive dialogue	2
Seminar 3	Comparing the biodiversity of two plant communities	Explanation, demonstration, practical application, problematization, interactive dialogue	2
Seminar 4	Composition of phytocoenoses – data processing exercises	Demonstration, practical application, problematization, interactive dialogue	2
Seminar 5	Study of plant communities - additions	Explanation, problematization, interactive dialogue	2
Seminar 6	Using modern techniques in vegetation data processing	Demonstration, practical application, problematization, interactive dialogue	2
Seminar 7	Phytocenotic interactions and the impact of environmental factors on plant communities	Explanation, problematization, interactive dialogue, brainstorming	2
		Total seminar hours	14

8.2.b. Laborator		**Teaching methods [21]**	**Hours**
Laboratory 1	Identification of herbaceous plant species using dichotomous keys and other specific materials (books) describing the flora of Romania	Demonstration, practical application, interactive dialogue, problem solving, determination book	2
Laboratory 2	Determination of the density, abundance, and frequency of the studied plants using the quadrat method and estimation of the population of a species in the study area	Demonstration, practical application, problematization, interactive dialogue	2
Laboratory 3	Structure of phytocoenoses – practical activity in field	Explanation, demonstration, practical application, problematization, interactive dialogue	2

Laboratory 4	Study of plant communities – practical fieldwork	Demonstration, practical application, problematization, interactive dialogue	2
Laboratory 5	The influence of environmental factors on vegetation – identifying the pH of soil samples on which diverse plant communities grow	Explanation, demonstration, practical application, problematization, interactive dialogue	2
Laboratory 6	Composition of phytocenoses – processing of data obtained from fieldwork	Explanation, demonstration, practical application, problematization, interactive dialogue	2
Laboratory 7	Laboratory verification/examination		2
		Total laboratory hours	14

9. Bibliography

9.1. Recommended references	Cristea, V., Gafta, D., Pedrotti, F. (2004): Fitosociologie, Edit. Presa Universitară clujeană, Cluj Napoca, România.
	Borza, Al., Boşcaiu, N. (1965): Introducere în studiul covorului vegetal, Edit. Acad. Bucureşti
9.2. Additional references	van der Maarel, E. (2005). Vegetation ecology–an overview. *Vegetation ecology*, *3*, 1-51.
	Cristea, V. (1991): Fitosociologie și vegetația României – Îndrumător de lucrări practice, Cluj-Napoca.

10. Conjunction of the discipline's content with the expectations of the epistemic community, professional associations and significant employers of the specific study program [22]

Studying the content of this discipline allows students to familiarize themselves with its specific terms and enrich their scientific vocabulary through understanding and correctly using them. The course curriculum not only ensures the development of professional skills, but also encourages the development of teamwork, public speaking, and interdisciplinary thinking.

11. Evaluation

Activity Type	11.1 Evaluation Criteria	11.2 Evaluation Methods		11.3 Percentage in the Final Grade	Notes.[23]
11.4a Exam / Coloquium	• Theoretical and practical knowledge acquired (quantity, correctness, accuracy)	Tests during the semester [24]:	%	65% (minimum 5)	
		Homework:	%		
		Other activities[25]:	%		
		Final evaluation:	65% (min. 5)		
11.4b Seminar	• Frequency/relevance of participation or responses	Evidence of participation, portfolio of papers (reports, scientific summaries)		5% (minimum 5)	
11.4c Laboratory	• Knowledge of the equipment, how to use specific tools; evaluation of tools, processing and interpretation of results	• Oral response • Written questionnaire • Laboratory notebook, experimental works, reports, etc. • Practical demonstration		5% (minimum 5)	
11.4d Project	• The quality of the project, the correctness of the project documentation,	• Self-evaluation, project presentation • Critical evaluation of a project		25% (minimum 5)	

	the appropriate justification of the chosen solutions			
11.5 Minimum performance standard[26]				

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: |_1_|_1_| / |_0_|_9_| / |_2_|_0_|_2_|_5_|

Department Acceptance Date: |_1_|_7_| / |_0_|_9_| / |_2_|_0_|_2_|_5_|

	Academic Rank, Title, First Name, Last Name	**Signature**
Course Teacher	Cocîrlea Maria-Denisa, PhD	
Study Program Coordinator	Assoc. Prof. Ana-Maria Benedek-Sîrbu, PhD	
Head of Department	Lecturer Ioan Tăușan, PhD	

[1] *Bachelor / Master*
[2] *1-4 for bachelor, 1-2 for master*
[3] *1-8 for bachelor, 1-4 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 3.7.*
[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*

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

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] *The learning outcomes will be stated in accordance with the specific standards of the ARACIS expert commissions (https://www.aracis.ro/ghiduri/)*
[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] *The relationship with other disciplines, the usefulness of the discipline on the labour market*
[23] *CPE – Conditions Exam Participation; nCPE – Does Not Condition Exam Participation; CEF - Conditions Final Evaluation; N/A – not applicable*
[24] *The number of tests and the weeks in which they will be taken will be specified*
[25] *Scientific circles, professional competitions, etc.*
[26] *The minimum performance standard in the competence grid of the study program is customized to the specifics of the discipline, if applicable*