



Course ID: HK0111	Course name: BASICS OF ECOLOGY		
Cycle: FIRST	Year: FIRST	Semester: I	ECTS credits: 4
Course status: MANDATORY		Total course hours: 100	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs [do not enter names in this section. Leave the wording as indicated in this section]		
Prerequisite for enrollment:	-		
Course aims:	The main objectives of the course are to acquire knowledge about environmental factors and their complex action, basic environmental laws in all spheres of life and basic postulates of Ecology.		
Thematic course units:	<ol style="list-style-type: none">1. Definition of ecology; ecological factors and ecological valence.2. Ecological hierarchy and degrees of ecological integration.3. Population - concept and attributes; Biocenosis - concept and attributes.4. Ecosystem - circulation of organic matter and energy flow.5. Biogeochemical cycles.6. Basics of production and decomposition of organic matter.7. Laws of biomass production. Primary and secondary production.8. Distribution of life on Earth.9. Resources: Energy resources. Renewable and non-renewable resources. Use and utilization of resources. Resource management. Sustainable development.10. Lithosphere-rock definition and division.11. Pedosphere-soil types.12. Atmosphere.13. Hydrosphere.14. Biodiversity: a concept. Biodiversity levels.15. Biodiversity strategies. Goals and measures.		
Learning outcomes:	Knowledge: Students will be able to define and describe basic ecological concepts, explain the connection between living		

	<p>beings and their environment, connect the causes of environmental pollution with consequences, analyze the basics of sustainable development, distinguish types of pollution, and analyze environmental data.</p> <p>Skills: This course will enable students to acquire skills of observation, analysis and interpretation of facts related to ecology and the use of this information in achieving the protection of individual organisms and their habitats.</p> <p>Competences: Basic knowledge of trends in ecology, types of pollution, the impact of industry and man on the climate and the environment. Knowledge of the possibilities of preventing environmental pollution and their remediation. Knowledge of biodiversity and protection measures.</p>																																													
Teaching methodology:	Lectures (oral presentation of teachers - presentations) and laboratory exercises (practical work)																																													
Assessment methods and grading system¹:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e0e0e0;"> <th colspan="3">Grading criteria</th> </tr> <tr> <th style="width: 60%;">Criteria</th> <th style="width: 20%;">Maximal score</th> <th style="width: 20%;">Required score</th> </tr> </thead> <tbody> <tr> <td>1. Class attendance</td> <td style="text-align: center;">5</td> <td style="text-align: center;">3</td> </tr> <tr> <td>2. Class activities *</td> <td style="text-align: center;">15</td> <td style="text-align: center;">8</td> </tr> <tr> <td>3. Midterms</td> <td style="text-align: center;">40</td> <td style="text-align: center;">22</td> </tr> <tr> <td>4. Final exam</td> <td style="text-align: center;">40</td> <td style="text-align: center;">22</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: center;">100</td> <td style="text-align: center;">55</td> </tr> </tbody> </table> <p style="font-size: small;">* Class activity is scored through the engagement of students in exercises.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e0e0e0;"> <th colspan="3">Scores and grading</th> </tr> <tr> <th style="width: 40%;">Score</th> <th style="width: 30%;">Grade (B&H)</th> <th style="width: 30%;">Grade (ECTS)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">< 55</td> <td style="text-align: center;">5</td> <td style="text-align: center;">F, FX</td> </tr> <tr> <td style="text-align: center;">55-64</td> <td style="text-align: center;">6</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">65-74</td> <td style="text-align: center;">7</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">75-84</td> <td style="text-align: center;">8</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">85-94</td> <td style="text-align: center;">9</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">95-100</td> <td style="text-align: center;">10</td> <td style="text-align: center;">A</td> </tr> </tbody> </table>	Grading criteria			Criteria	Maximal score	Required score	1. Class attendance	5	3	2. Class activities *	15	8	3. Midterms	40	22	4. Final exam	40	22	Total	100	55	Scores and grading			Score	Grade (B&H)	Grade (ECTS)	< 55	5	F, FX	55-64	6	E	65-74	7	D	75-84	8	C	85-94	9	B	95-100	10	A
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Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> 1. Škrijelj, R., Đug, S. (2009). Uvod u ekologiju životinja. Prirodno-matematički fakultet, Sarajevo. 2. Đug, S., Škrijelj, R. (2009). Biogeografija. Prirodno- 																																													

¹ The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

² The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton

matematički fakultet, Sarajevo.

3. Stanković, S. (1969). Ekologija životinja. Zavod za izdavanje udžbenika, Beograd.

Supplementary literature:

1. Gračanin, M. (1977). Uvod u ekologiju bilja. Školska knjiga Zagreb.
2. Dizdarević, M. (1974). Rječnik ekologije. Zavod za izdavanje udžbenika, Sarajevo.
3. Odum, E. (1971). Fundamentals Ecology. 3. edition. Philadelphia: Saunders.