

Study program: Ecology			
Type and level of studies: Undergraduate academic studies (UAS)			
Course unit: E122 SYNECOLOGY			
Teacher in charge: Snezana B. Pesic, PhD; Milan S. Stankovic, PhD			
Language of instruction: English			
ECTS: 6			
Prerequisites: /			
Semester: Winter			
Course unit objective Education of experts who possess knowledge of the synergistic functioning of the environment and the living world in the ecosystems, and the sensitivity of natural systems to human interventions.			
Learning outcomes of Course unit Education of experts who will sublimate previously acquired ecological knowledge, master the field and laboratory work techniques, skills in interpreting field and laboratory results, learn to work independently and in team, to use computers and different sources of information in an appropriate way. The experience of working in the team, both in the field, as well as in the laboratory and in the computer-room will develop the sense of responsibility and respect for others' efforts. Independent work on the preparation of the seminar will affect the awareness of the need for personal engagement to accomplish the task. The analysis of the results emphasizes the logic, understanding of the interconnectedness and conditionality of living beings and the environment.			
Course unit contents <i>Theoretical classes:</i> Synecology as a science. Abiotic components of the ecosystem. Biotic and anthropogenic factors. Population ecology (=demecology). Phytocenology. Zoocenology. Biocenology and ecosystemology. Mathematical analysis and modeling of ecological systems. Seminar papers on topics from several areas, mainly of Balkan Peninsula ecosystems (terrestrial, freshwater and sea). <i>Practical classes:</i> Monthly monitoring of the structure and dynamics of the selected ecosystems in the succession (forest, grassland, meadow) by combining terrain (phytocoenological recordings, soil sampling, mushrooms, lichens, etc., micro-climatic measurements of temperature and humidity of air and soil by layers) work in the laboratory (separation of pedomeso- and pedomacofauna, identification and quantitative processing of isolated forms) and on computers (creation of tables and charts, calculation of diversity index). In the end, the measurement results and biological indicators are sublimated and commented on the correlations of changing ecological conditions and registered organisms.			
Literature - Kojić M, Popović R, Karadžić B. (1998): Syntaxonomic overview of Serbian vegetation. IBI "Siniša Stankovic", Belgrade. (in Serbian) - Lopatin I., Matveev S.D. (1995): Short zoogeography with the basics of biogeography and ecology of the biomes of the Balkan Peninsula. Ljubljana. (in Serbian) - Morin PJ. (2011): Community Ecology. Second edition. Wiley-Blackwell. - Vegetation of Serbia I, II1 and II2. (1984-2006), Serbian Academy of Sciences and Arts, Department of Natural Sciences and Mathematics, Belgrade. (in Serbian)			
Number of active teaching hours			Other classes:
Lectures: 45	Practice: 30	Other forms of classes:	Independent work: seminar
Teaching methods joint processing of teaching units by teachers and students through the preparation of seminar papers and presentations and intensive field practice			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points	Final exam	No. of points
Activity during the lectures	5	Written examination	20
Practical classes	10	Oral examination	35
Tests/colloquiums	30 (3x10)		
Seminar paper	20		
Grading system			
Grade	No. of points	Description	
10	>= 91	Excellent	
9	81-90	Exceptionally good	
8	71-80	Very good	
7	61-70	Good	
6	51-60	Passing	

5	≤ 50	Failing
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