Course Information Sheet

University: *University of Prešov in Prešov*	
Faculty: *Faculty of Humanities and Natural Sciences*	
Code: *2EKO/EVOEK/22*	**Title of Course:** *Evolutionary ecology*
Form of Study: *lectures, seminares* ***Number of contact hours:*** *per week: 2 lectures, 1 seminar* *per level/semester: 20 lectures, 10 seminars, 50 seminar work hours, 40 self study hours* ***Method**: physical presence/traditional classrooms*	
Number of credits: *4*	
Semester: *3. semester /2. study year*	
Degree/Level: *2*	
Prerequisities: Basics of genetics *2EKO/ZAGEN/22;*	
Grading Policy (Assessment/Evaluation): *Presence at seminars is mandatory. A student can have a maximum of 2 absences justified on on the basis of a medical certificate. In the absence of the student will receive substitute tasks, respectively graduates consultation. In case of unjustified absence or a large number of absences, a student will not grant credits.* *The evaluation of the student's study results within the study subject will be performed as follows:* *A. continuous control of study results during the semester (seminar work) with a minimum success rate of 50%;* *B. final exam.* *The success criteria (percentage expression of results) are for the classification levels as follows:* *a) A - 100.00 - 90.00%* *b) B - 89.99 - 80.00%* *c) C - 79.99 - 70.00%* *d) D - 69.99 - 60.00%* *e) E - 59.99 - 50.00%* *f) FX - 49.99 and less%*	
Aims and Objectives: *After completing the course, the student is able to explain the relationship between evolutionary theory and ecology and their meaning. The student has practical knowledge that allows him to apply knowledge of population biology in an ecological context. Can define the main mechanisms determining the emergence of adaptations, niche occupation, emergence of ecological relationships (antagonism, musicalism), phenomena coevolution, speciation, extinction. Can describe the basic principles of macroecology, patterns of biodiversity on Earth in the context of evolutionary past and processes. Student after graduation the subject is able to apply basic theoretical knowledge and concepts in practical protection of nature.*	
Syllabus/Indicative Content: *1. Natural selection at the population level, speciation.* *2. Genetic drift in large and small populations.* *3. Ecology of adaptive changes.* *4. Evolutionary ecology of niche.* *5. Life history.* *6. Evolution of sexual reproduction.* *7. Influence of sex of offspring by parents, mechanisms of sex determination.*	

8. Evolution of antagonism and mutualism.
9. Coevolution.
10. Macroevolution
11. Macroecology
12. Synthesis - biodiversity.
13. Use of evolutionary ecology in practical protection.

Suggested readings:

FLEGR J. 2009. Evoluční biologie. Academia, Praha.

MAYHEW, P.J. Discovering Evolutionary Ecology. Bringing together ecology and evolution. Oxford University Press. 2006

Language of Instruction: *slovak, english*

Other course information

Grading history

A	B	C	D	E	FX

Lecturer/Instructor:

doc. Mgr. Martin Hromada, PhD., lecturer, examiner, examining teacher, seminars

Last update: 13. January 2022

Approved by: