



DEPARTMENT OF BIOLOGY AND ECOLOGY

**GRADUATE ACADEMIC STUDIES
ECOLOGY**

for obtaining the second higher education degree and professional title

Master of ecology

Modules:

Master of ecology – Ecology

Master of ecology – Applied ecology

Kragujevac, 2017.

THE STRUCTURE OF THE STUDY PROGRAM

TITLE AND AIMS OF THE STUDY PROGRAM

Graduate academic studies of Ecology last one year (two semesters, 60 (61) ECTS). The study program is structured with aims to educate and train experts for vocational and scientific work with developed abilities for: analysis, synthesis and application of knowledge into practice in different fields of natural sciences and environmental protection.

Master of Ecology

The study program includes two modules:

- **Master of ecology – Ecology**
- **Master of ecology – Applied ecology**

Upon completion of Graduate academic studies of Ecology, experts are formed, able to integrated the knowledge and skills necessary for individual and team work in organizations and companies dealing with environmental monitoring and natural resources management, as well as in institutions for environmental protection.

The specific purpose of the graduate study program is to provide experts able to:

- work in the developmental laboratories and research centers in the field of ecology and environmental protection,
- work in institutions whose primary task is nature protection and biodiversity conservation (National parks, nature reserves, etc.),
- work in the institutions dealing with ecological monitoring of the environment,
- work in the institutions dealing with management and sustainable use of natural resources,
- work in government authorities, inspection services and research centers of various state, private and public companies,
- individual and team work in multidisciplinary teams in the business of developing awareness of the importance of ecology and environmental protection and public participation in making decisions in this area.

TYPE OF STUDY AND LEARNING OUTCOMES

Study program on both modules consists of obligatory and elective courses, research study and the master thesis. Elective courses direct students toward specific ecological discipline depending on personal needs and affinities.

ADMISSION REQUIREMENTS FOR THE STUDY PROGRAM

Application for Graduate academic studies of Ecology can submit persons with completed undergraduate level with the least of 240 ECTS. Foreign citizens can enroll in a study program on the same conditions as a Serbian candidates, in accordance with the law, with the prior test of knowledge Serbian language.

MASTER THESIS

Master thesis is a result of study research of students and represents the final exam for obtaining the professional title MASTER OF ECOLOGY.

APENDIX

A list of obligatory and elective courses per semester, weekly number of classes of lectures, exercises and individual work, ECTS for each subject at the graduate academic studies of ecology 60 (61) ECTS.

Labels used:

C - course code, which is set at the level of institutions
S - semester of the course

Type of course: **AG** - Academic general educational
TM - Theoretical and methodological
SP - Scientific professional
PA - Professional Applicative

Status of the course: **O** - obligative
EB - elective block.

Classes of active teaching: **P** - lectures
E - exercises
SR - Study and Research
OFT - Other forms of teaching (laboratory exercises, seminars, etc., depending on the specifics of the study program).

A distribution of the study program courses into semesters and academic year

GRADUATE ACADEMIC STUDIES ECOLOGY

Module: Ecology

	C	Course Title	S	Course Type	Course Status	Active teaching				ESTC
						L	E	OFT	Other classes	
1.	BMB 201	Introduction to scientific research	1	TM	O	2	1	0	0	5
2.	BMB 202	Bioinformatics and biostatistics bases	1	TM	O	2	1	0	0	5
3.	E201	Conservation biology	1	TM	O	3	2	0	0	6
4.		Course of elective block 1 (one course)	1	PA	EB	2	2 (0)*	0 (2)*	0	5
5.	E202	Research study 1	1	PA	O	0	0	0	8	6
6.		Courses of elective block 2 (one course)	2	PA	EB	2	2	0	0	5
7.		Course of elective block 3 (one course)	2	PA	EB	2 (3)*	2	0	0	5 (6)
8.	E203	Research study 2	2	PA	O	0	0	0	10	8
9.	E204	Master thesis	2	PA	O	0	0	0	0	15
Total classes of active teaching per week						13	8(10)	2 (0)	18	60 (61)
Total ESTC per year						(14)				
Total classes of active teaching per year						615 (630)				
Total classes of active teaching for all study years						615 (630) classes, 60 (61) ESTC				

* Classes of active teaching depending on the elective courses

The list of elective courses in the study program

GRADUATE ACADEMIC STUDIES ECOLOGY

Module: Ecology

	C	Course Title	Course Type	Course Status	Active teaching				ESTC
					L	E	OFT	SR	
Courses of elective block 1									
1.	E205	Ecology and genetics of population	PA	EB	2	2	0	0	5
2.	E206	Fungal ecology	PA	EB	2	2	0	0	5
3.	E207	Ecotoxicology	PA	EB	2	0	2	0	5
4.	E208	Plants bioindicators	PA	EB	2	2	0	0	5
Courses of elective block 2									
1.	E209	Ecosystem dynamics	PA	EB	2	2	0	0	5
2.	E210	Insects ecology	PA	EB	2	2	0	0	5
3.	E211	Invertebrates ecotoxicology	PA	EB	2	2	0	0	5
4.	E212	Aquatic fauna as bioindicator	PA	EB	2	2	0	0	5
Courses of elective block 3									
1.	BE201	Behavioral ecology	PA	EB	2	2	0	0	5
2.	E213	Algal ecology	PA	EB	2	2	0	0	5
3.	BMB209	Genotoxicology	PA	EB	2	2	0	0	6
4.	BE204	Methodology of cotemporary research of birds and mammals	PA	EB	3	2	0	0	6

A distribution of the study program courses into semesters and academic year
GRADUATE ACADEMIC STUDIES ECOLOGY
Module: Applied ecology

	C	Course Title	S	Course Type	Course Status	Active teaching				ESTC
						L	E	OFT	Other classes	
1.	BMB 202	Bioinformatics and biostatistics bases	1	TM	O	2	1	0	0	5
2.	E201	Conservation biology	1	TM	O	3	2	0	0	6
3.	E214	Environmental monitoring	1	TM	O	3	2	0	0	6
4.	E215	Spatial database and geographical information systems in ecology	1	PA	O	2	1	0	0	4
5.		Courses of elective block 1 (one course)	1	PA	EB	2 (3)*	2	0	0	5 (6)
6.	E216	Research study 1	1	PA	O	0	0	0	7	4
7.		Courses of elective block 2 (one course)	2	PA	EB	2	2	0	0	5
8.		Courses of elective block 3 (one course)	2	PA	EB	2	2	0	0	5
9.	E217	Research study 2	2	PA	O	0	0	0	10	5
10.	E218	Master thesis	2	PA	O	0	0	0	0	15
Total classes of active teaching per week						16	12	0	17	60 (61)
Total ESTC per year						(17)				
Total classes of active teaching per year						675 (690)				
Total classes of active teaching for all study years						675 (690) classes, 60 (61) ESTC				

* Classes of active teaching depending on the elective courses

The list of elective courses in the study program

GRADUATE ACADEMIC STUDIES ECOLOGY
Module: Applied ecology

	C	Course Title	Course Type	Course Status	Active teaching				ESTC
					L	E	OFT	SR	
Courses of elective block 1									
1.	E219	Managing with ecosystems and protected areas	PA	EB	2	2	0		5
2.	BE203	Applied algology	PA	EB	3	2	0		6
3.	E220	Medical aspects of environmental protection	PA	EB	2	2	0		5
Courses of elective block 2									
1.	E221	Endangered species management	PA	EB	2	2	0		5
2.	E222	Sustainable fisheries and aquaculture	PA	EB	2	2	0		5
3.	E223	Molecular biotechnology in ecology	PA	EB	2	2	0		5
Courses of elective block 3									
1.	BE202	Ecotourism	PA	EB	2	2	0		5
2.	E224	Restoration and protection of aquatic ecosystems	PA	EB	2	2	0		5