Course Unit Descriptor

Study Programme: ANIMAL PRODUCTION

Course Unit Title: ZOOECOLOGY

Course Unit Code: 19.ANM045

Name of Lecturer(s): prof. Aleksandra Petrović, PhD; doc. Ivana Ivanović, PhD

Type and Level of Studies: Undergraduate academic studies

Course Status (compulsory/elective): elective

Semester (winter/summer): summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: none

Course Aims:

Acquired and applicable knowledge on the origin and development of ecological science, basic ecological terms and principles, study of the complex of abiotic and biotic factors and their complex effects on animal production processes, the basics of population ecology, agroecosystem changes under the influence of the anthropogenic factor.

Learning Outcomes:

Knowledge and professional skills in the framework of ecology, sustainable animal production and integrated environmental protection.

Syllabus:

Theory

Introduction and history of animal ecology, definitions and basic terms. Living conditions and the environmental factors concept. Habitat and concept of biotope, life form, ecological niche. Abiotic factors and ecological optimum, edaphic factors and biotic factors. Phenology. Population ecology: population density, spatial distribution, birth rate, fecundity and fertility, mortality. Age structure, growth, potential and maintenance of the population. Population theories. Biocenosis - the structure of the living community. Ecosystem - integration, balance and classification. Changes in the ecosystem under the influence of the anthropogenic factor. Agroecology - agrobiotope, agrobiocenosis, agrosinusia, agroecosystem. Basic characteristics and maintenance of agroecosystems. Biological control of parasites and diseases.

Practice

Examples of abiotic and biotic factors. Ecological valence, biotope, life form and ecological niche. Methods of calculating population density. Determining the age structure of the population. Determining the age and length growth of fish. Mortality and mortality tables. Population growth and survival tables. Spatial distribution. Agrobiotope - the habitat specificity and the effect of a uniform complex of ecological factors. Agrobiocenosis - a complex of basic and secondary carriers of animal production. Agrosynuzia - homogeneity of ecological conditions of animal production. Agroecosystem - integral effect of ecological factors. Environmental changes under the influence of the anthropogenic factor. Biological control. Ecology and integrated environmental protection.

Required Reading:

Đukić N., Maletin S., Petrović A.(2018): Zooekologija. Poljoprivredni fakultet, Univerzitet u Novom Sadu.
Reece J.B., Urry L.A., Cain M.L., Wasserman S.A., Minorsky P.V., Jackson R.B. (eds) (2011): Campbell Biology, 9th edition. Pearson, USA.
Southwood T.R.E., Henderson P.A. (eds) (2000): Ecological methods, 3rd edition. Blackwell Science Ltd., USA.

Weekly Contact Hours:	**Lectures:** 2	**Practical work:** 2

Teaching Methods:

Theoretical classes - video beam presentations and consultations.
Practical classes - independent exercises, study cases and computational tasks.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Active class participation	10	written exam	30
Practical work	30	oral exam	30

Colloquium		…….	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			