Course Unit Descriptor

Study Programme: Veterinary medicine

Course Unit Title: Intensive production in acquaculture

Course Unit Code: 3IVM5I94

Name of Lecturer(s): Assistant Professor Nikolina Novakov, Teaching assistant Bojana Vidović

Type and Level of Studies: Integrated Academic Degree

Course Status (compulsory/elective): Elective

Semester (winter/summer): Winter

Language of instruction: English

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

**Number of ECTS Allocated: 3.5** 

**Prerequisites:** None

**Course Aims:** The subject enables student to acquire knowledge related to the intensive production of cyprinid and salmonid species in aquaculture. The student should acquire the skills of performing technological processes that are carried out in fishponds and ability to solve practical problems in the field of the subject.

**Learning Outcomes:** After completion of the course from this subject a student should be able to: 1. define and explain the concepts from technology and nutrition of cyprinid and salmonid fishes; 2. recognize the economic worth of fish species; 3. master the anatomy and physiology of fish; 4. implement methods for measuring physical and chemical parameters of water; 5. evaluate the requirements for an adequate location and construction of the fishpond; 6. manage intensive production in aquaculture; 7. participate individually and in a team in solving of practical problems in the field of the subject.

## **Syllabus:**

#### Theory

State of aquaculture in Serbia, Europe and the world. Morphological and physiological characteristics of the most important fish species. Water as an ambient environment. Water systems. Location and construction of carp ponds. Breeding of fish in warm water cyprinid ponds. Breeding of fish in the cold water trout ponds. Fish nutrition. The selection and breeding of spawning fish. The technology of fish rearing. Special forms of fish breeding. Fish farming in the thermal waters. Management of the fish ponds.

### Practice

Morphological characteristics of fishes. Measurement of basic physical and chemical parameters of water. The measurement of the number and amount of basic living communities in the water. Weed fish. Design and construction of ponds. Fish nutrition. The technological process of fish production.

# **Required Reading:**

- 1. Čirković, M. Fisheries. Faculty of Agriculture, Novi Sad, 2002.
- 2. Bogut, I., Horvath, L., Adamek, Z., Katavić, I. Fisheries. Faculty of agriculture Osijek, 2006.
- 3. Pillay, T.W.R. Aquaculture principles and practices. Blackwell Science, Oxford, 1995.
- 4. Shepherd, C.J., Bromage, N.R. Intensive fish farming. Blackwell Science, Oxford, 1988.

Weekly Contact Hours: Lectures: 2 Practical work: 2

## **Teaching Methods:**

Within the methods of teaching, lectures combined with interactive teaching in all subject chapters are used. Practical include chapters: The technological process of production of fish; Design and construction of ponds and Fish nutrition.

Other exercises include chapters: Morphological characteristics of fish and Measurement of basic physical and chemical parameters of water and needs to carry out in the laboratory. One seminar on topics from any of theory chapters is necessary. Testing of knowledge is implemented through two obligatory tests, practical and oral exam that includes all chapters of the subjects.

# **Knowledge Assessment (maximum of 100 points):**

Pre-exam obligations	points	Final exam	points
Active class	5	written exam	
participation	3	written exam	
Practical work	10	oral exam	50
Preliminary exam(s)	20		
Seminar(s)	15		

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