(Table 5.2) Course unit description

Study program : Ecology

Type and level of studies: Master studies of Ecology

Course unit: Sustainable fishing and aquaculture

Teacher in charge: Vladica M. Simić

Language of instruction (*English or other foreign language*): English

ECTS: 5

Prerequisites: enrolled 2nd semester of study

Semester *(Winter Semester or Summer Semester)*: Summer semester

Course unit objective

The aim is to familiarize students with the possibilities of applying scientific knowledge in the field of hydrobiology through projects related to the aspects of aquaculture and fisheries in open water.

Learning outcomes of Course unit

Training students to work on the preparation of studies and projects related to sustainable fishing and aquaculture in open water.

Course unit contents

Theoretical classes

Philosophy of history and fishing. Fundamentals of aquaculture. Important species of fish and other aquatic organisms used in human nutrition (biology, ecology, diseases). Fishing on rivers and lakes. Sea fishing. Sustainable use of fish stock, models and strategies. Overview of the sustainable use of fish resources of Serbia. Commercial fishing. Recreational fishing. Legislation, economics and fisheries policy. Aquaculture, concept and significance. Hot-water, freshwater ponds. The cold freshwater ponds. Growing of freshwater crabs. Marine culture - breeding of sea fish, crustaceans and shells. Fishing in open waters. Freshwater and marine aquarists. Putting and placing fish.

Practical classes

Hydro biological basis of plans for conservation and sustainable use of fish stocks. Assessment of biomass production and fish species of natural waters. Evaluation of growth and production of fish by the FISAT software. Catch per unit of effort (CPUE). Process full maturity and fertility of fish. Determination of previous fish and duchy long-term growth. (Von Bertalanffi equation, software package FISAT 2). The dimensions of the sustainable use of fish stocks.

The methodology of the plan for the sustainable exploitation of fish stocks in natural ecosystems.

Examples are a plan for the sustainable exploitation of fish stocks. Working in a programming package FISAT.

Visit: Salmonide cold water pond. Hot water pond. Center for fishery and applied hydrobiology Radmilovac. Belgrade. The Faculty of Agriculture.

Literature

Stoyan Mihov, Ivan Hristov (2011). River ecology. WWF-DCPO
Peter B. Moyle (2011) Fishes: An Introduction to Ichthyology. Prentice-Hall of India Pvt.Ltd
Simon Jennings, Michel J. Kaiser, John D. Reynolds (2001) Marine Fisheries Ecology. Blackwell publishing company
Lawrence M. Page, Brooks M. Burr (2011) Peterson Field Guide to Freshwater Fishes, Second Edition (Peterson Field Guides). Houghton Mifflin Harcourt.

Number of active teaching hours				**Other classes**
Lectures: 2	Practice: 2	Other forms of classes: 0	Independent work: 0	

Teaching methods

Lectures, power-point presentations, Internet use, seminars, field and laboratory practice

Examination methods (maximum 100 points)			
Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	5	oral examination	20
practical classes/tests	5	written examination	30
Seminars/homework	40	.....	
Project	-		

Other	-		

Grading system		
Grade	**No. of points**	**Description**
10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**0-51**	Failing