Study Programme: Bsc in Ecology

Degree level:Bachelor

Course Title: Hydrobiology

Status: elective

Number of ECTS: 6

Requirements: Ecology

Learning Objective:

Introduce students to the basic definitions and concepts of hydrobiology, as a very complex and comprehensive scientific field. In that sense, the specific elements of aquatic ecosystems, whether in biotic or abiotic field, would not be the direct objectives of the course. The main goal is understanding and detection the conditions and patherns of aquatic ecosystems function and capacity.

Learning Outcome:

Students are expected to demonstrate understanding of the phenomena and processes in aquatic ecosystems in the term of sustainable development; express the ability to interpret the concept of actual problems of saprobiology and water pollution; solve these problems, primarily related to the protection and rational management of water as national resurces.

Course Content:

Theoretical part: Introduction to hydrobiology. Water as life environment. Genesis and classification of aquatic ecosystems. Saline and freshwater ecosystems. Ground water. Composition of water communities (characteristics and representatives). Distribution, importance and role of water communities. Biotic factors. Abiotic factors. Biomonitoring. Saprobiology. Pollution of aquatic ecosystems. Levels and classes of water pollution. Applied hydrobiology.

Practical part: Hidrobiological sampling methodology. Laboratory processing of collected sampling materials. Physico-chemicals parameters as indicators of water quality. Saprobity systems and method for water quality assessing. Phytoplankton and zooplankton organisms as indicators of water quality. Macrozooplankton, oligohaetae and fish as water quality bioindicators. Fishing techniques and fish feeding. Monitoring of the protected hydroecosystems. Commercial and sport fishing. Methods and techniques of carp and trout farming in Serbia.

Total hours:			
Lectures: 3	Practicals: 3	Other:	Student research work:

Methods of instruction: Lectures, practicals, consultations, seminars, colloquia, field work. Classes will be realized in the form of lectures and seminar work. Lectures are conducted using a computer presentation to a video projector, projection of films and slides, as well as the field continues. The exercises are carried out effectively in the laboratory and field teaching.