Annotation of the selective educational component

Academic discipline	**Biophysics**
Lecturer	Oksana Stryhina Candidate of Physical and Mathematical Sciences Department of Higher Mathematics and Physics
The course and semester, when the discipline is planning to study	1 course, 2 semester
Faculties whose students are invited to study discipline	Faculty of Ecology
List of competencies and learning-related outcomes that discipline provides	The result of training in the discipline is the acquisition by students of such knowledge and skills: • Select and apply suitable methods for the analysis and synthesis of electromechanical and electric power systems with specified indicators in the field of aquaculture. • Find the necessary information in the scientific and technical literature, databases data, and other sources of information, evaluate their relevance and authenticity • Solve complex, specialized design and engineering tasks • maintenance of electromechanical systems, and electrical equipment involved when growing hydrobionts • Be able to learn independently, acquire new knowledge, and improve your ability to work with modern equipment, measuring equipment, and application software
Description of the discipline	
Preconditions necessary for the study of the discipline **The maximum number of students who can study simultaneously**	Zoology, Fish morphology, Hydrochemistry, Hydroecology, Physiology, and biochemistry hydrobionts Lectures - 50 students Practical - 25 students
Lesson plans **Teaching language**	**Lectures** 1. Electrical properties of cells 2. Biophysical parameters of characteristic cell membranes 3. Conductivity and electrical potentials in the nervous system hydrobionts 4. Biophysics of muscle tissue of hydrobionts. Biophysical aspects tissue preservation 5. Elements of fluid and gas mechanics. Cardiovascular biophysics. 6. Kinematics, kinetics, mechanics of liquids and gases. 7. Biophysics of the respiratory system of hydrobionts. 8. Fundamentals of bioenergy. Thermokinetics. Ukrainian