Graduate Model

6B08402 – Aquaculture and Aquatic Biological Resources

Upon acquiring the competencies, a student will:

Know:

•Breeding characteristics of different fish species, methods of line breeding, the effectiveness of different reproduction techniques, selection program parameters from domestic and international companies, genetic and technological resources of the fishery industry, and modern approaches to their rational use;

• Technologies for selective breeding at hatcheries and reproduction centers, methods for creating new fish breeds considering production efficiency and profitability;

• Ways to improve fishery resources and enhance the quality of breeding products while reducing production costs and increasing profitability;

• How to manage high-quality production with cost reduction, ensuring the rational maintenance, feeding, and breeding of fish under intensive technology;

• Draw up and organize the implementation of a breeding plan, carry out fish sorting, targeted selection and selection; correctly interpret the information received;

Possess skills in:

- Assessing and selecting fish in populations and lines;
- Calculating genetic and mathematical parameters for breeding;
- Practical and theoretical bases in selection, feeding, and technology;
- Reproduction methods and quality assessment of producers' sperm;
- Independently studying specialized literature and scientific and technical information.

7M08404 – Aquaculture and Aquatic Biological Resources

A master's student will:

Have an understanding of:

• The role of fisheries in the economy, recognizing that the industry offers a variety of products, including high-quality fillets, roe, and other consumer-friendly options.

Know:

• Theoretical foundations of morphology, anatomy, histology, biochemistry, physiology, genetics, and feeding of commercial fish species;

• Mechanization and electrification of production processes, breeding organization, standards and regulatory documents, marketing of fish farming products.

Be skilled in:

- Assessing fish based on external and internal characteristics;
- Selection methods for breeding under specific technological conditions;
- Managing production, ensuring rational fish maintenance and feeding;
- Using technological equipment for fish farming;
- Applying biotechnical and breeding records for production and research tasks;
- Conducting genetic-mathematical and statistical analysis using computers.

Be able to:

- Manage production, ensuring rational fish feeding and maintenance;
- Apply advanced production methods to enhance product quality and reduce costs;

• Carrying out work on breeding fish of various types, types and types under normal technological conditions;

- Direct production teams and manage labs;
- Make independent decisions and use scientific and technical information effectively.