

FI - FISHERIES

FI101 Fishery Techniques I

Credits 4
Registration Requirement: RD090 and WR090, or IECC201R and IECC201W; and MTH020; each with a grade of "C" or higher, or placement above stated course levels; or instructor consent. This course includes an introduction to the Fisheries Technology program as well as topics such as fisheries literature, identification of adult trout and salmon, spawning fish surveys, definition of a fishery, aquatic invasive species, knot tying, recreational creel, commercial fish surveys and an overview of fish culture operations. Limited to students with the Fisheries major. To change majors, email ar@mhcc.edu or call 503-491-7393.
Additional Course Fee: \$30.00

FI102 Fishery Techniques II

Credits 4
Registration Requirement: FI101 or instructor consent. Topics covered include creel census techniques, net making and repair, how to read and interpret topographic maps, use of a compass, mapping of lakes and streams, use of fish anesthetics, various types of fish data collection techniques and using a variety of fish marking and tagging techniques in the campus fish hatchery.
Additional Course Fee: \$30.00

FI103 Fishery Techniques III

Credits 4
Registration Requirement: FI102 or instructor consent. Students must have a valid Oregon Boater's Education Card or equivalent. A continuation of concepts introduced in FI102 with new topics covered such as the use of GPS, lake/pond mapping, pond management, population estimation, fish capture/sampling methods, plankton, aquatic insects, water quality, undesirable fish control, boats and boat handling, aquatic plants and their control.
Additional Course Fee: \$30.00

FI111 Fish Biology I

Credits 4
Registration Requirement: RD090 and WR090, or IECC201R and IECC201W; and MTH020; each with a grade of "C" or better, or placement above stated course levels; or instructor consent. Elementary physical and chemical concepts as applied to life processes are covered, along with the external anatomy, classification, life histories and distribution of major fish of the Pacific Northwest. Limited to students with the Fisheries major. To change majors, email ar@mhcc.edu or call 503-491-7393.
Additional Course Fee: \$30.00

FI112 Fish Biology II

Credits 4
Registration Requirement: FI111 or instructor consent. This course is a continuation of FI111, further developing elementary physical and chemical concepts as applied to life processes. Fish anatomical and physiological concepts are discussed system by system.
Additional Course Fee: \$20.00

FI113 Fish Biology III

Credits 4
Registration Requirement: FI112 or instructor consent. Fish anatomical and physiological concepts are discussed system by system (a continuation from FI112). Included are discussions of both Mendelian and population genetics, as well as classification, identification and life history studies of the major invertebrates in the Pacific Northwest.
Additional Course Fee: \$30.00

FI201 Fish Husbandry I

Credits 6
Registration Requirement: FI103 with a grade of "D" or higher. This course serves as an introduction to fish husbandry with a focus on salmonid fish culture. Topics typically covered include broodstock management and spawning methods, disinfection, incubation, development, shocking, sorting, enumeration and shipping methods of fish eggs, ponding and initial feeding of fish, as well as sampling methods and calculating feeding amounts.
Additional Course Fee: \$30.00

FI202 Fish Husbandry II

Credits 6
Registration Requirement: FI201 with a grade of "D" or higher. A continuation of the concepts introduced in FI201 with new topics such as fish nutrition and feeding methods, projecting growth of fish, fish sampling techniques, carrying capacities of various types of rearing units, hatchery water supply requirements and treatment methods, re-circulating aquaculture systems, hatchery effluent treatment and management, fish health management, disease treatment and design of a hatchery facility.
Additional Course Fee: \$30.00

FI203 Fish Husbandry III

Credits 3
Registration Requirement: FI202 with a grade of "D" or higher. A continuation of the concepts covered in FI201 and FI202 with new topics such as grading of fish, predation, harvest and transport of fish. Applying and interviewing for jobs are skills are reinforced. Several field trips are taken to visit a variety of state, federal and tribal facilities related to fish culture in the Pacific Northwest.
Additional Course Fee: \$30.00

FI205 Fisheries Lab Techniques

Credits 2
Registration Requirement: Acceptance into the Fisheries Technology program or instructor consent. This course focuses on the teaching of laboratory skills and techniques that are used in the field of fish culture.

FI207 Fisheries Data Analysis Techniques

Credits 4
Registration Requirement: Acceptance into the Fisheries Technology program; and MTH058, MTH065 or equivalent. This course will stress the importance of neatness and accuracy in recording scientific data. Basic data summarization and statistical concepts used in analyzing data are studied and practiced.

FI211 Field Projects I

Credits 2

Registration Requirement: FI103 with a grade of "D" or higher.

This course is designed to provide the second-year student in Fisheries Technology an opportunity to plan, develop and carry out a study on their own initiative in the area of fisheries, describing the results in a technical manner. The students will use the skills they have acquired in class to accomplish this project. The project will generally be of the student's own choosing.

FI212 Field Projects II

Credits 2

Registration Requirement: FI211.

Second course in a sequence designed to provide the second-year student in Fisheries Technology an opportunity to plan, develop and carry out a study on their own initiative in the area of fisheries, describing the results in a technical manner. Students use the skills they have acquired in class to accomplish this project. The project will generally be of the student's own choosing.

FI213 Field Projects III

Credits 2

Registration Requirement: FI212. Corequisite: WR227Z or WR227.

This course is designed to provide the second-year student in Fisheries Technology an opportunity to plan, develop and carry out a study on their own initiative in the area of fisheries, describing the results in a technical manner. The students will use the skills they have acquired in class to accomplish this project. The project will generally be of the student's own choosing. A final report following the format of technical fisheries journals and a formal oral presentation on the results of the project are required.

FI221 Building and Equipment Maintenance and Repair I

Credits 4

Registration Requirement: Second-year Fisheries Technology student only or instructor consent.

Students receive instruction and practice in the maintenance of buildings, households and equipment commonly found at a fish hatchery. This course focuses on building repair activities including working with wood, plumbing, concrete, building repairs, roof maintenance and painting.

Additional Course Fee: \$30.00**FI223 Fisheries Welding**

Credits 2

Registration Requirement: Second-year Fisheries Technology only or instructor consent.

This course provides introduction to welding safety, the Shielded Metal Arc Welding (SMAW) or "stick" electrode process, wire feed processes and applications using Gas Metal Arc Welding (GMAW) sometimes referred to as "MIG" or "short arc", and Flux Cored Arc Welding (FCAW). Students learn to safely set up and operate Plasma equipment for cutting ferrous and non-ferrous metal, including the safe setup and operation of Oxy-Fuel cutting equipment. Students are taught fundamental manipulative skills required to successfully weld ferrous and non-ferrous metals in the flat and horizontal positions needed to maintain and repair fishery buildings and related hatchery equipment.

Additional Course Fee: \$25.00**FI231 Current Issues/Natural Resources**

Credit 1

Registration Requirement: Second-year Fisheries Technology students only or instructor consent.

Provides insights into contemporary political, environmental and public relations problems as they relate to fisheries, wildlife and natural resources.

FI241 Stream Habitat Assessment and Improvement

Credits 2

Registration Requirement: FI103 or instructor consent.

Instruction and practice in conducting stream habitat assessment in accordance with procedures used by local government agencies. Also, this course includes instruction in current practices of stream habitat improvement.

Additional Course Fee: \$30.00**FI250 Career Development in Fisheries**

Credit 1

Registration Requirement: Limited to students in the Fisheries Technology program.

In this course, students investigate career options, job search strategies and application processes specific to the natural resources field, including discussion of private organizations and public agencies managing natural resources in the Pacific Northwest. Topics will include interviewing, resume development, job search strategies and methods and specific application processes for state and federal positions.

Course fees are subject to change. Additional section fees (web, hybrid, etc.) may apply.