

Fisheries and Aquaculture Technology

2-year Technology Diploma Program
1-year Post-Degree Diploma Program



Advance Credit

Students may be granted advance credit for courses taken at VIU or elsewhere. Credit is granted in consultation with the Admissions office, course instructor and program Chair and, in some cases, may involve a written or verbal course challenge.

Grading Policy

Grading for individual courses is consistent with VIU's policy. For more information please visit www.viu.ca/programs, or refer to the "Student Guide" issued in the first week of classes.

Program Outline – 2-year Technology Diploma

YEAR 1

- Introductory Field Trip
- Fish Husbandry I & II
- Field Practicum I & II
- Project in Husbandry I & II
- Aquatic Plant Ecology and Culture
- Concepts in Biology
- Biology of Fishes
- Aquatic Habitats
- Life History and Management of Salmonids
- Intro to Statistics
- College Composition

Special Session

- Summer Practicum

YEAR 2

- Invertebrate Zoology
- Trout Culture I & II
- Larval Rearing & Invertebrate Culture
- Warm Water Fish Culture
- Fish Health
- Fish Habitat Assessment and Rehabilitation

- Stream Hydrology
- Hydraulics and Recirculation
- Field Practicum III & IV
- Project in Husbandry III & IV
- Fisheries Field Techniques
- Fisheries Management

Program Outline – 1-year Post-Degree Diploma

- minimum 30 credits (see courses above)
- 2 semesters Field Practicum
- 2 semesters Project in Husbandry

Start Date and Application Deadline

The program starts in September and applications will be accepted between November 15 and March 31. Applications received after March 31 will be reviewed, depending on space availability.

Financial Assistance

Financial assistance is available to students demonstrating financial need. Information on sources of financial aid (loans, grants, scholarships, awards, tuition bursaries and general bursaries) is available at the Financial Aid & Awards office, Building 200 – Nanaimo campus, or call (250) 740-6423. Applications should be made eight to ten weeks prior to the start of your program. For more information, please visit www.viu.ca/financialaid

Further Information

The Vancouver Island University Calendar is available online. Visit our website at www.viu.ca/programs. Students planning a career or long-term academic program are urged to discuss their goals with an Educational Advisor before registering – (250) 740-6410.

The department website is available online at viu.ca/fisheries. To view video clips of student projects and research visit our website at www.youtube.com/user/FishAquaMalaspina.

How to Apply

Students can apply online at www.pas.bc.ca or obtain an *Application for Admission* form, which is available from regional secondary schools, or from Vancouver Island University Registration Centres at the Nanaimo, Duncan, Powell River or Parksville-Qualicum campuses.

When the Registration Centre confirms that you have been admitted, you will be advised of when and how to register and pay for your courses.

About Vancouver Island University

Vancouver Island University is a comprehensive post-secondary institution located on beautiful Vancouver Island, in British Columbia. Our main campus is located in Nanaimo, and we have regional campuses in Duncan and Powell River, and a campus centre in Parksville. More than 14,000 full-time and part-time students are enrolled in academic, applied, career/technical, vocational, trades, and developmental programs leading to certificates, diplomas and degrees.

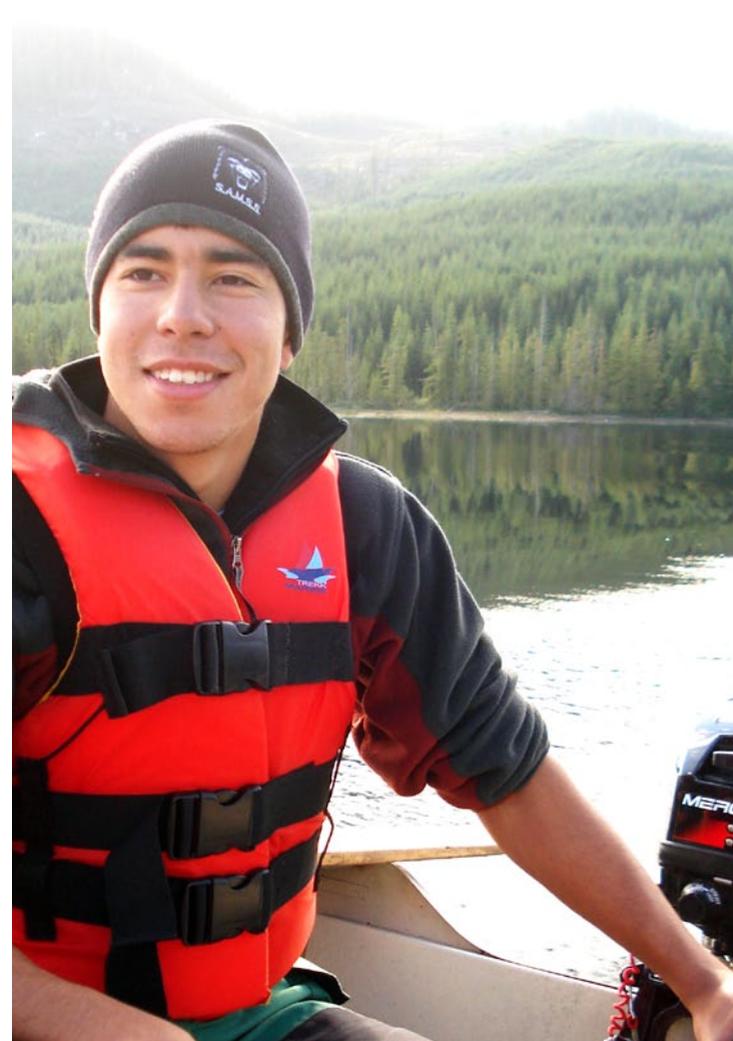
Vancouver Island University
900 Fifth Street
Nanaimo, BC V9R 5S5

Switchboard: (250) 753-3245 | Toll-free: 1-888-920-2221
Advising: (250) 740-6410
Financial Aid & Awards: (250) 740-6423
Registration Tel: (250) 740-6400 | Fax: (250) 740-6479

www.viu.ca

The information contained in this guide is accurate at the time of printing. Vancouver Island University reserves the right to make such changes as necessary, including cancellation and adjustment of courses.

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Would you like a career where you

- conserve, manage and enhance marine and freshwater aquatic resources?
- work outdoors on lakes, rivers, streams and the ocean?
- cultivate and harvest fish, shellfish or marine plants for the replenishment of wild stocks or commercial sale?
- work in both laboratory and field settings?
- work locally and/or internationally?

Fisheries and Aquaculture has long been an area of specialization at Vancouver Island University. VIU has an international reputation in fisheries and aquaculture applied research, technology transfer, training, and education. VIU boasts an extensive array of facilities and equipment: three cool-water hatchery complexes; a warm-water hatchery; salt-water system; fish disease laboratory; lake study field station; oyster farm; sturgeon, trout, and wild and cultured salmon research programs. The proximity of VIU to fresh-water lakes and streams, as well as to the ocean and estuaries allows fieldwork in these habitats to be a central part of the students' education.

The program is designed to develop well-rounded technologists with a broad background in the practical and academic skills of fish and invertebrate culture, fisheries

habitat and fish stock assessment, wild stock management, business management, and environmental control and planning.

Both the "why" and "how" are presented through formal lectures and practical experience. The selection of program material is designed to give a broad theoretical background to provide flexibility, as well as foster a professional attitude toward a future career. Students will spend approximately 25 per cent of their time on "hands-on" fisheries and aquaculture projects on- and-off campus.

Students may take the Fisheries and Aquaculture Diploma program in 1, 2 or 3-year formats. Over the course of the program practical work experience exposes students to a wide variety of activities, and introduces them to the facilities, organizations and personnel important in their future careers.

The first year provides a foundation in basic conceptual areas as statistics, biology, English, habitats of fish and fish rearing methods. There is a weekly practicum, in which students are sent into the field for a day to work in various aquacultural or fisheries facilities (salmonid hatcheries, spawning channels, wild fish projects, oyster farms, invertebrate hatcheries and others), and students also work one half day each week on aquaculture or fisheries field projects on campus (aquaponics, tropical fish, white sturgeon, rainbow trout, fish health diagnostics and algae labs). Many courses also involve significant field experience.

In the second year, students are exposed to more advanced and specialized topics in fisheries and aquaculture. These include engineering courses for both fisheries (hydrology with a stream surveying component) and aquaculture (e.g., hydraulics and hatchery design, invertebrate biology, larval rearing and fish health).

The program is limited to a maximum of 26 full-time students per year. Students wishing to take the program on a part-time basis, or wishing to attend single courses may do so, although if space is limited, which is often the case, preference may be given to full-time students.

The one-year post-degree diploma program is very popular for students that already have a B.Sc. in a related biological/ environmental science. This program is comprised of a subset of courses offered in the 2-year diploma and B.Sc. programs. The specific subset of courses taken is tailored to meet individual student's career interests, usually with either a fisheries management or aquaculture emphasis. Graduates find the



knowledge, practical skills and work experience gained to be excellent direct gateways to careers and graduate school.

In addition to the many scholarships available to all VIU students, there are numerous special awards exclusively for Fisheries and Aquaculture students, ranging in value from \$300 to \$2,500. For more information contact the Financial Aid & Awards office.

Career Opportunities

A broad choice of positions in fish and invertebrate culture, fish habitat & stock assessment, fisheries enhancement, conservation & management and research are available, and graduates have gained employment through private fish & shellfish farms, Federal and Provincial Salmon Hatcheries, Freshwater Fisheries Society of BC, Fisheries and Oceans Canada, Environmental consulting companies, First Nations communities and non-profit organizations.

Admission Requirements

2-year Technology Diploma Program

- Graduation from a BC secondary school, or equivalent*.
- English 12 with min. "C" grade, or equivalent.
- Principles of Math 11 or Applications of Math 11 with min. "C" grade, or equivalent.
- Biology 11 with a min. "C" grade, or equivalent.

* See an Advisor for information on equivalencies.

Recommended for Admission

- Chemistry 11 with min. "C" grade, or equivalent.
- Physics 12 and other science courses are highly recommended.
- Additional English courses that lead to improved writing skills are invaluable.
- Computer experience including skills in MS Windows.

1-year Post-Degree Diploma Program

- B.Sc. in a Biological Science from VIU or elsewhere.
- permission of department.

Notes on Admission

- Students who have English 12, Math 11, Biology 11 and Chemistry 11 complete the program within 4 semesters. Students without these requirements complete upgrading courses in the first year of the program; they will require 6 semesters to complete the program.
- Students may take the program on a part-time basis, but admission to courses will be subject to prerequisites, where applicable, and space in the classroom after full-time students have been served.
- Consideration will be given to mature students without grade 12; however, they must complete the prerequisites or equivalents before applying.
- 1-year Post-Degree Diploma courses are selected in consultation with the department Chair after acceptance into the program.

