

Archived: September 9, 2021

Science and Technology Programs

Aquaculture (BSc)

Location Offered:

Nanaimo

Credential:

Bachelor Degree

Options:

Minor

Program Length:

4 Years

The Program

The Bachelor of Science, Minor in Aquaculture is designed for students who have an interest in aquaculture but have additional academic and career aspirations. As a 'Science Minor' the Bachelor of Science, Minor in Aquaculture will have the ability to combine with several other major or minor programs (i.e. Biology, Chemistry, Math) so that students will be able to develop a multi-disciplinary program. The Bachelor of Science, Minor in Aquaculture will provide students a broad background knowledge in biological, aquatic, and related sciences plus general knowledge, skills and abilities required in the field. In addition, graduates will possess specific knowledge, skills and abilities required for the sustainable production of aquatic animals. Topics include the culture methods of finfish, shellfish and crustaceans and important methods to maintain animal health and nutrition.

The Bachelor of Science, Minor in Aquaculture curriculum will be taught using lectures, laboratories, seminars, and experiential learning opportunities at VIU aquatic animal culture and research facilities which include: 1) the Centre for Shellfish Research (CSR); 2) the International Centre for Sturgeon Studies (ICSS); 3) the Deep Bay Marine Field Station (DBMFS) and; 4) the Centre for Innovation in Fish Health. Utilizing these state-of-the-art facilities offers students an experience to gain theoretical knowledge and practical experience to prepare them for the workforce. Graduates with a Bachelor of Science, Minor in Aquaculture will be able to: directly enter the workforce in the discipline of their Major and/or subdiscipline of their Bachelor of Science, Minor in Aquaculture with relevant and demonstrable research and practical experience; and directly enter positions engaged in a broad array of scientific enquiry, including graduate and professional schools, with relevant knowledge, practical skills and direct research experience.

The Fisheries and Aquaculture programs, including the Bachelor of Science, Minor in Aquaculture are well supported by the aquaculture industry in British Columbia which employ many of our graduates. The industry supports optional paid Co-op opportunities which offers students direct experience in aquatic culture operations.

For additional information on the program, faculty, and undergraduate research, please visit the VIU Fisheries and Aquaculture Website.

Program Outline

Requirements for a Minor

BSc Minor students must fulfill all Institutional B.Sc. Degree Requirements, including Degree English Requirements and courses listed below.

Core Courses

Years 1 and 2	Credits
BIOL 121 - (Introductory Zoology)	4
BIOL 123 - (Introduction to Cellular and Molecular Biology)	4
Select <i>one</i> of the following pairs (CHEM 142 is recommended): CHEM 140 - (Chemistry Fundamentals I) <i>and</i> , CHEM 141 - (Chemistry Fundamentals II) <i>or</i> , CHEM 142 - (Chemistry Fundamentals II)	8
Select one of (MATH 203 is recommended): MATH 203 - (Biometrics) MATH 211 - (Fundamentals of Statistics I)	3
AQUA 101 - (Introduction to Aquaculture)	3
CHEM 212 - (Environmental Chemical Analysis)	3
Total Credits	25

Years 3 and 4	Credits
AQUA 323 - (Invertebrate Aquaculture)	3
AQUA 328 - (Methods and Techniques of Finfish Culture)	3
AQUA 332 - (Finfish, Shellfish and Crustacean Nutrition)	3
AQUA 342 - (Finfish, Shellfish and Crustacean Health)	3
AQUA 375 - (Recirculating Aquaculture Systems (RAS))	3
GEOG 356 - (Policy, Resources and Sustainability)	3
MGMT 381 - (Entre/Intrapreneurship)	3
Total Credits	21
Total Program Credits	46

Admission Requirements

BSc General Admission Requirements

- General admission requirements apply.
- A minimum "B" grade in either Pre-calculus 12 or Principles of Mathematics 12.

Notes on Admission Requirements

- Courses in first year have different prerequisites. To satisfy all first year course prerequisites, students must complete all of the following B.C. Secondary School course requirements:
 - A minimum grade of "C" in English 12;
 - A minimum grade of "C+" in each of Biology 11 or 12, Chemistry 11 and 12; and
 - A minimum grade of "B" in Mathematics 12 (Pre-calculus 12 or Principles of Mathematics 12).
- Students who do not satisfy all of the first-year course prerequisites will not likely be able to complete the full degree program in four years. Students who are lacking any or all of the first-year course prerequisites should speak with a VIU

Advisor about upgrading courses.

Program Regulations

Prerequisites to most AQUA courses require a minimum "C-" grade (55%) in the corresponding prerequisite course(s).

Start Date and Application Deadline

The program starts in September and applications for admission are accepted on the first business day in October to March 31. Applications received after March 31 are considered late and will be processed as space permits.

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