BIOL 491

Undergraduate Research Projects

Information Session

January, 2026

For year 2026-27

https://scitech.viu.ca/biology/biology-491-undergraduate-research-projects

VANCOUVER ISLAND UNIVERSITY

Outline

- Course description
  - Objectives
  - Format / procedures
- Defining your project
  - Finding a project advisor
- FAQ's
- Questions

Course Objectives

- Engage in exciting biological research
- Expand your research skills
  - Project design
  - Field / laboratory research skills
  - Communication of results
- Interact with scientists
- Study your field of interest
- “Enhance your résumé”

Pre-registration Steps

- Select area of interest & potential advisor
  - For past project titles check BIOL 491 web site or the BIOL 491 Blog
    - https://scitech.viu.ca/biology/biology-491-undergraduate-research-projects
    - https://wordpress.viu.ca/biol491/ this site also have abstracts for the past BIOL491 years
- Talk to faculty members, check out the abstracts and reports from past projects that are interesting to you
  - Printed abstracts from past projects (2012- 2023) and final reports of past projects will be available (upon request to the project advisor) for you to read

Pre-registration Steps

- Get the BIOL 491 Student (pre) Application Form
  - PDF document https://wordpress.viu.ca/biol491/
    - This is a "**pre-application**" where you select the potential area of research & biology faculty advisor
    - Please follow the instructions on the application
- Fill up the BIOL 491 Student (pre)Application Form
  - Submit form by e-mail to BIOL 491 Course coordinator Mercedes Hernandez by February 4 2026
    - Mercedes.Hernandez@viu.ca

Pre-registration Steps (cont)

- Faculty member will meet during study days in February to review your applications
- Class size is limited. Some aspect that will be taken into consideration to choose a student include
  - He/she has already discussed & agreed on possible project with advisor
  - He/she will **have completed 18 upper level biology credits before the star of the Fall semester 2026**
  - He/she has background in the area of research

Pre-registration Steps (cont)

- If you application was approved by the Department
  You'll get an e-mail from the BIOL 491 coordinator indicating if your application was accepted & who will be your advisor
- Proceed to Register into the course (school year 26-27) by filling the BIOL 491 registration form
  - Meet with your assigned advisor (he/she will have the registration form)
  - Fill the form, print it, both you and your advisor must sign it. Scan and save it as a PDF document with you last name as part of the file name, and either bring the paper copy or e-mail the pdf file to BIOL 491 coordinator **before the due date indicated in the form** (TBA)

Format / Procedures

(General timeline once you had been accepted)

Registration Form (after an advisor has been assigned. Must be filled, signed, & handed to coordinator in order to guarantee a seat into the course)	Late March early April (specific date TBA)
FALL SEMESTER	
Orientation	Friday, 1st week of classes
Poster Making Workshop	Friday 2nd week of classes
Committee Meeting No. 1 (Proposal)	3rd week of classes
Project proposal	6th week of classes
Work on research project/ meet advisor	ongoing
SPRING SEMESTER (next side)	

Format / Procedures

(General timeline cont. Spring semester)

Progress report (to all committee members)	Friday 1st week of classes
Committee Meeting No. 2 (Progress)	2nd week of classes
Project report (draft)	7th week of classes
Meet with advisor to discuss abstract, poster and final project title	8th week of classes
Submit Project title	9th week of classes
Submit Poster file to advisor	10th week of classes
Project report (final)	11th week of classes
Biology 491 Symposium	Last day of classes
Corrected Project report (public copy)	two days after final exams conclude

Department of Biology | VIU

Invitation to the 29th annual
BIOL 491- Undergraduate Research Project Symposium

This yearly event allows our students to present to interested members of VIU and the community at large the final results of their year-long research projects.

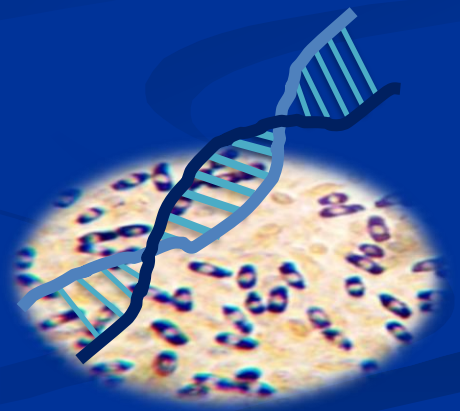
Student research projects generally address topics of interest to people in the community, and cover a broad range of scientific interest, including molecular biology, cell biology, ecology, parasitology, microbiology and botany.

When:

Friday April 10th 2026 from 2:30 pm to 5:00 pm

Where:

Bldg 355 room 203 (Arbutus room)



BIOL 491 Symposium

Defining Your Project

- This is your project!
  - It should be in your field of interest
- What is your field of interest?
  - Microbial biology
  - Molecular and cellular biology
  - Ecology, organismal biology
    - **Important notice: depending on project animal care protocol, or biosafety authorization may be required before research starts**
  - Combination of fields

Finding a Project Advisor

- Discuss your interests with your profs
  - We help you define your research scope
- Collaboration outside VIU Biology encouraged

- You will work with a project committee
  - Main Biology advisor
  - 2 committee members – present at specific meetings, mark final report
    - These are chosen by your advisor

Potential Advisors

http://www.viu.ca/biology/faculty.asp

Microbial Biology

- Dr. Andrew Loudon – microbial ecology, applied microbiology

Molecular and cellular biology

- Dr.– Joslynn Affleck cell biology, molecular biology
- Dr. Caroline Josefsson - molecular biology, plant biology, genetics
- Dr. Catherine Thompson – cell biology, immunology, biochemistry

Ecology, organismal biology

- Dr. Eric Demers – freshwater ecology, fish ecology, ornithology
- Dr. Ita Mc Grogan - physiology

Potential Co-Advisors*

- Dr. Duane Friesen (Chemistry) – photochemistry
- Dr. Chris Gill (Chemistry) – Applied Environmental Research Lab
- Dr. Erik Krogh (Chemistry) – Applied Environmental Research Lab
- Dr. Stefanie Duff (Fish/Aqua) – marine ecology, evolutionary biology
- Dr. Liz Gillis (RMOT) – wildlife ecology, animal behaviour
- Dr. Tim Green (Fish/Aqua) – shellfish research

<u>Research Centres / External Agencies</u>

- Centre for Shellfish Research
- International Centre for Sturgeon Studies
- Centre for Coastal Health
- Pacific Biological Station (PBS)
- BC Environment

* Co-advisors are chosen upon approval by your Biology Department faculty advisor

FAQs

- **What biological topics are available?**
  - Virtually any!
  - There is sufficient expertise at VIU and around Nanaimo to work on most areas of biology
- **How do I know if I can do my project in 1 year?**
  - Your advisor(s) will help you define a workable project scope
- **Do I *have* to start in the summer?**
  - No! but **for some projects, it may be appropriate**
    - You need to establish with your advisor if you will be starting in the summer as this will affect what section of BIOL 491 you will be registered in and when you will have to pay your tuition for the course!
- **Do I have to pay for research costs?**
  - No! You pay 6-credits of tuition already
  - The Biology Dept. covers your research costs

FAQs

- **What if I can't think of a project?**
  - No worries. Talk to profs in your field of interest – they will help you find a project you like
  - Check past project titles on the BIOL 491 website
- **What if I can't find a free advisor?**
  - Many faculty have overlapping fields of interest
  - We collaborate to ensure you can do your project of interest
  - You may have two co-advisors
- **How much time per week should I spend on my project?**
  - Consider BIOL 491 like any 3-credit course in a semester, except there is no formal class time
  - Assume an average of 6-8 hours/week (equivalent to a typical lecture/lab course)

FAQs

- **What other opportunities are there for research if I do not get accepted for BIOL 491?**
  - You can do a BIOL 490 Directed Studies in Biology (3 credits)
- **What lab space is available for research?**
  - Space is available in the undergraduate research lab (Room 201)
  - Other spaces are accessible and your advisor would facilitate logistics
- **When is the undergraduate research lab accessible?**
  - Almost anytime. You will get a code to open the outside door
  - The Biology preparation/supply room is closed during evenings, weekends and holidays. Planning is needed!

FAQs

- **Can I change my project topic after I fill in the application form?**
  - Yes. You would need to discuss the change with your advisor for approval
- **Can I change the title of my project?**
  - Yes. Titles often change during the duration of the project to better reflect the actual project
- **Does the project have to relate to my area of specialization?**
  - Not necessarily. The specialization courses taken typically reflect a student's field of interest, and it is natural for a project to fit in that specialization. However, it may be possible to complete a project outside of your area of specialization
  - Some projects may benefit from having completed the relevant specialization courses