

## Research Opportunities

We encourage undergraduates to conduct research with faculty either for course credit or as paid work.

*"In completing the biology honours program at MSVU, I have gained and improved upon many skills such as scientific writing, public speaking, problem solving, and scientific research in general. My experience with the program has allowed me to grow as a scientist and has provided me with assets that will aid me throughout my career. To anyone interested in scientific research, I would highly recommend the honours program."* Nicholas Zinck (2019)

*"The Mount's biology honours program was an amazing opportunity that allowed me to design and conduct a research project, while developing invaluable skills in problem solving, writing, and data collection and analysis. Through the honours program, I also gained useful experience presenting my work at a conference, which helped me improve my communication skills. Overall, I would highly recommend the honours program to any biology student wishing to become more well rounded, and especially, those interested in research."* Sage Dixon (2018)

*"The biology honours program at the Mount provided me with an unparalleled learning experience. I was able to apply my classroom knowledge to a real research setting while developing practical skills that I will use for the rest of my career. I would highly recommend the honours program to anyone interested in working as a researcher."* Amanda Griffin (2016)

## Annual Biology Awards

Sisters of Charity Award  
Outstanding Biology Student Award  
Dr. Lillian Wainwright Biology Prize  
Department of Biology Award for Best Student  
Greg Coakley Lab Award  
Sister Lua Gavin Endowed Scholarship  
Dr. Margaret-Ann Armour Award

## Careers in Biology

- health professions (doctors, nurses, dentistry, etc)
- veterinarian (animal science)
- government and industry research labs
- environmental science
- science communication
- conservation biology
- agriculture & aquaculture
- biotechnology & biomedical engineering
- computational biology
- education (science teachers, lab instructors, lecturers, etc)

## About Mount Saint Vincent University

At Mount Saint Vincent University in Halifax, Nova Scotia, Canada, we are committed to academic excellence. We are dedicated to the pursuit of knowledge: scholarship, teaching, and intellectual endeavour of the highest quality. Mount Saint Vincent University offers a dynamic, challenging and welcoming environment. More than 4,000 students from across Canada and around the world take advantage of our personalized approach to education and distinctive programs.

## Admission

Admission requirements are listed in the Undergraduate Academic Calendar which is available online at [www.msvu.ca](http://www.msvu.ca).



## Contact Us

[www.msvu.ca/biology](http://www.msvu.ca/biology)

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**Department of Biology  
Mount Saint Vincent University**



**[www.msvu.ca/biology](http://www.msvu.ca/biology)**

## Meet the Department

### Faculty

**Dr. David Awde**, Assistant Professor

Primary subjects taught: Human Anatomy and Physiology, Physiology of Animals, Animals: Form and Function, Animal Behaviour  
Field of Research: Insect Physiology

**Dr. Lori Borgal**, Assistant Professor & Honours Coordinator

Primary subjects taught: Cell and Molecular Biology, Genetics: Genes and Genomes, Biology Colloquium  
Field of Research: Cell Proliferation and Molecular Biology

**Ms. Megan Fisher**, Lab Instructor

Primary labs taught: Plants: Form and Function, Physiology of Plants, General Ecology, Cell and Molecular Biology, Introductory Biology

**Dr. Tamara Franz-Ondendaal**, Professor

Primary subjects taught: Human Histology, Human Anatomy and Physiology, Animal Developmental Biology  
Field of Research: Developmental Biology, Skeletal Biology, Space Biology

**Dr. Gavin Kernaghan**, Professor

Primary subjects taught: Microbiology, Microbial Interactions  
Field of Research: Fungal Ecology, Plant-Fungus Symbioses

**Dr. Mirwais Qaderi**, Professor

Primary subjects taught: Plants: Form and Function, Physiology of Plants, Plants for People, General Ecology, Environmental Science, Climate Change and Plants  
Field of Research: Physiological Plant Ecology, Climate Change Biology

**Mr. Kevin Shaughnessy**, Senior Lab Instructor

Primary labs taught: Introductory Biology, Microbiology, Animals: Form and Function, Physiology of Animals

Every year we have a number of dedicated part-time faculty who teach courses in our department. For the current listing, please visit our website at [www.msvu.ca/biology](http://www.msvu.ca/biology).

We are proud of recent additions and upgrades to research laboratories in our Department.

## Support Staff

Mr. John Wangsgaard, Teaching Lab Technician

Ms. Laura Gamble, Administrative Assistant

## The Biology Program

Our program introduces students to major concepts in the areas of cell and molecular biology, metabolism, evolution and ecology, and the diversity of life. We encourage critical thinking and problem solving. All students in our department acquire hands-on laboratory techniques and skills in scientific writing and presentation. Some students choose to conduct independent research with faculty. As a sound knowledge of chemistry and statistics is required for a broad understanding of biology, courses in these subjects are required in the Biology program.

## Program Offerings

We offer the following options to Science students.

Units of Biology courses required are shown in parentheses.

Biology Honours Degree (10.0)

Biology Major (8.0)

Biology Combined Major (6.0)

Biology Concentration (4.0)

Biology Minor (3.0)

See the Undergraduate Academic Calendar at [www.msvu.ca](http://www.msvu.ca) for full each descriptions of our programs.



## A Typical Biology Major Course Plan

A total of 20 units of course work is required for a Bachelor of Science with Major-degree.

### First Year

BIOL 1152 Introductory Biology I

BIOL 1153 Introductory Biology II

### Second Year

BIOL 2240 Cell and Molecular Biology

Two of these courses:

BIOL 2203 Plants: Form and Function

BIOL 2204 Animals: Form and Function

BIOL 2207 Microbial Diversity

### Third Year

BIOL 3312 General Ecology

Two of these courses:

BIOL 3309 Physiology of Plants

BIOL 3310 Physiology of Animals

BIOL 3322 Animal Developmental Biology

BIOL 3374 Genetics: Genes and Genomes

Additional Biology courses are required as electives. These may be completed in any year.

See the Undergraduate Academic Calendar at [www.msvu.ca](http://www.msvu.ca) for descriptions of courses.

### Other Required Courses in the Biology Program

CHEM 1011 General Chemistry I

CHEM 1012 General Chemistry II

CHEM 2401 Organic Chemistry I

MATH 1113 Introductory Calculus I

MATH 2208 Introduction to Statistics I

MATH 2209 Introduction to Statistics II

Two courses in Social Sciences

Two courses in Humanities

Please consult the online Undergraduate Academic Calendar to verify that you have prerequisite for each course selected.