

# Biological Sciences

*Made in Windsor.*



**BIOLOGICAL SCIENCES**

**BEHAVIOUR, COGNITION AND NEUROSCIENCE**



[uwindsor.ca/science](http://uwindsor.ca/science)



**Biological Sciences  
Experience Map**



**University  
of Windsor**

## Highlights and Skills

### PROGRAM HIGHLIGHTS

#### Biological Sciences **H C T**

Study the fundamentals of life in this flexible program that lets you blaze your own trail and choose courses that you are passionate about. Specialize in microbiology, cellular development, physiology and behaviour, environmental and evolutionary biology, population and ecosystem ecology, or any combination of these areas. You'll learn research techniques in our new labs and out in the field that will prepare you for a wide range of career paths, ranging from interests at the molecular level, to whole organisms (including humans) and/or the more complex community and ecosystem levels.

#### MIN. AVG.\* 70% ONTARIO COURSE REQUIREMENTS

ENG4U, MHF4U, SCH4U and SBI4U. MCV4U is strongly recommended. SPH4U is recommended. A minimum 70% average of all required science and math courses is also required, excluding MDM4U.

#### Behaviour, Cognition and Neuroscience **H T**

Why do we do what we do? Find out in this acclaimed program that probes the three areas of BCN (behaviour, cognition, and neuroscience) through the study of biology related to the brain and the biological aspects of psychology. If you're interested in both biology and psychology, this research-based program with a low faculty-to student ratio is for you.

#### MIN. AVG.\* 70% ONTARIO COURSE REQUIREMENTS

ENG4U, MHF4U, SCH4U and SBI4U. MCV4U is strongly recommended. SPH4U is recommended. A minimum 70% average of all required science and math courses is also required, excluding MDM4U.




### FUNCTIONAL KNOWLEDGE

- Understanding and analyzing biological systems from the level of DNA up to and including ecosystem processes
- Operating advanced scientific laboratory equipment and instruments
- Taking careful measurements and recording precise observations using best practices/field techniques
- Communicating interpreted technical and scientific data to various audiences

**H** Honours - 4-year program **T** Thesis available **C** Combined Honours programs available \* Minimum grade point average for admission to program. A higher average may be required.

## Build your Skills and Experience

Your UWindsor experience is more than attending classes. It is a combination of academics, co-curricular activities, and extracurricular involvement. By making the most of all three elements of your university experience, you will maximize your opportunities to build your skills, broaden your personal network, and clarify your long term academic and career goals.

	<b>CURRICULUM</b> Courses of study specific to each program
	<b>CO-CURRICULAR</b> Activities and experiences that complement coursework (Outstanding Scholars, peer mentoring, VIP)
	<b>EXTRACURRICULAR</b> Activities falling outside the scope of set curriculum (Part-time job, clubs, volunteering, athletics)

## Career Planning Cycle

Intentional career planning will help you prepare for your next step after graduation and beyond. It is a fluid, dynamic, and lifelong process. You can move on or return to an earlier stage in the cycle at any time.



## Explore Opportunities Using This Chart

Explore a selection of opportunities recommended for students in your program. This chart shows some of your many options – you don't have to do everything on it or limit yourself to it. Engage in opportunities from each of the three categories to set yourself up for success.

### High-Impact Practice (HIP)

A HIP is an enriching educational experience that can be life-changing and often includes learning outside of the classroom while encouraging meaningful interaction and collaboration, such as:

- Co-op, internship or field experiences
- Research with faculty
- Culminating senior experience
- Capstone courses
- Service-learning
- Learning communities
- Study abroad

## Academics



Your Coursework





### First Year

- Take first year required courses including Cell Biology, Biological Diversity, General Chemistry I and II, Calculus, and Statistics
- Review degree course requirements for all years of study and mesh them with professional or graduate school aspirations
- Meet with a dedicated Biology or BCN academic advisor
- Learn more about your program and campus during **Welcome Week**, including participating in the **PASS** program that will coach you on skills necessary to be a successful Faculty of Science student
- Receive peer mentorship from an upper-year **MySci** advisor

### Middle Years

- Take required courses, including those that focus on a specialization such as neuroscience, microbiology, physiology, or environmental ecology
- Consider declaring a minor and/or specialization
- Check in with academic advisor to make sure you are on the right path
- Meet professors you are considering working with if completing an undergraduate research project in your final year 
- Seek out courses that offer experiential learning 
- Continue taking courses required as preparation for professional schools
- Study for and take professional school admission tests of interest


### Final Year




- Complete all required courses for your degree
- Undertake an undergraduate research project with faculty member, a requirement if program includes a thesis 
- Consider completing a minor in a second discipline
- Meet with an academic advisor to review graduation requirements
- Apply to graduate through **UWinsite Student Portal**
- Apply your knowledge through an upper-year course that offers field and/or lab experience to culminate your senior experience 
- Check that you have completed requirements for graduate school, professional school, or other future goals





## Experience

Ways To Get Involved



- Join clubs such as the **Science Society** or **Students Offering Support**
- Begin the process of becoming a **LEAD Medallion Scholar** in accordance with *Leadership, Engagement, Application, Discover* – participate in credit and volunteer activities such as being *Engaged* by volunteering in a lab or at the **Great Lakes Institute of Environmental Research (GLIER)** to help with research for professors and graduate students and/or *Discover* research opportunities as part of the **Outstanding Scholars** program 
- Join the **USci Network** to take part in collaborative and integrative science experiences
- Participate in the **Bystander Initiative** workshop to gain skills that will help you be an effective and supportive ally to prevent sexual assault on campus
- Apply for co-curricular experience such as **VIP - Community Service Learning**

- Join a club, or continue your involvement in any clubs (such as **Science Society**)
- Expand your skills by taking on a summer, part-time or volunteer position
- Continue the process of becoming a **LEAD Medallion Scholar** in ways such as *Applying* your knowledge through a summer research assistant or a teaching assistant position within the Department of Integrative Biology, becoming *Engaged* through service learning opportunities with **Let's Talk Science** and **Science Rendezvous**, and gaining valuable *Leadership skills* through roles within a club or society 
- Participate in **UWill Discover** undergraduate research conference 
- Gain a **Global Perspective of Science (GPS)** through an international exchange or by studying abroad 

- Conduct field/lab research with a faculty member 
- Join a professional association in your field such as the **Association of Professional Biology**
- Attend **Ontario Biology Day** to present thesis research 
- Become a **MySci** advisor to provide academic support and mentorship for first year students
- Become a tutor for **Students Offering Support (SOS)** 
- Complete **LEAD Medallion Scholars** in two areas for Bronze, three areas for Silver, or four areas for Gold in accordance with *Leadership, Engagement, Application, Discover* 

## Career

Plan Ahead For What's Next

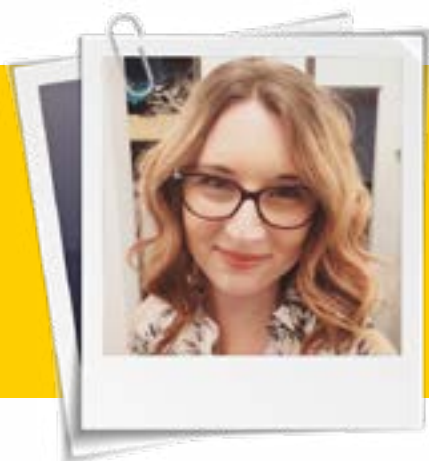


- Analyze the requirements for graduate or professional schools
- Start planning your career by making a list of things you enjoy, your skills and areas where you excel
- Get involved with a part-time job, volunteer opportunity, campus group, or research assistantship
- Consider a career assessment appointment to help you identify possible career paths
- Attend **CDEL** workshops to learn how to find a summer or part-time job and write a university-level resumé
- Chat with an advisor during **CDEL's Drop-In** hours to get answers to your career and job search questions

- Explore further educational opportunities by attending the **Graduate and Professional Schools Fair** and researching admission requirements for programs you are interested in
- If you are considering applying to graduate or professional school, be aware of early application deadlines
- Explore opportunities and meet potential employers by participating in **Job Shadow Experience**, job fairs and industry networking events
- Research career fields and occupations with the help of **CDEL**
- Take part in informational interviews and join online communities like **LinkedIn** and **Ten Thousand Coffees** to connect with people in your targeted profession or industry
- Create a **LinkedIn** profile and have it critiqued by **CDEL**

- Compose a portfolio of relevant academic and work experience
- Set up a mock interview with a career advisor for professional school or job applications
- Take part in recruitment events and job fairs, including those organized by **CDEL**
- Meet with **CDEL** to prepare application documents like a resumé, cover letter, CV, or personal statement for jobs and education programs you are applying to
- Attend **CDEL's** workshops on interview skills and job search strategies
- Explore professional development opportunities through **Continuing Education**

# Life After Graduation



The Biology department at the University of Windsor is an outstanding organization to be a part of, in terms of both learning and research. The professors are passionate about their jobs and are willing to go the extra mile to facilitate a great learning experience. The department is also representative of a tight knit community, which allows for numerous collaborative opportunities.”

*Megan Mickle – BSc (Honours) in Biological Sciences with Thesis  
MSc in Biological Sciences*

**157** Number of  
Graduates

(2019)

**93%**

**Employment  
Rate of Graduates**

*Employment rate of graduates 2 years following  
degree completion (OUGS Biological Sciences, 2018)*

## Career Tracks\*

Agricultural scientist  
Animal care specialist  
Audiologist  
Chiropractor  
Conservation officer  
Dentist  
Doctor  
Ecologist

Entomologist  
Environmental assessor  
Fisheries scientist  
Food inspector  
Lab technician  
Laboratory supervisor  
Medical director  
Nutritionist

Optometrist  
Pharmacist  
Physiotherapist  
Policy advisor  
Professional biologist  
Professor  
Project manager  
Public health educator

Quality assurance supervisor  
Radiation therapy  
Research co-ordinator  
Teacher  
Veterinarian

*\*Additional education and/or training required for some of the above careers.*



## Common Industries For Graduates

- **Academia:** advanced biological research
- **Education:** curriculum design, teaching
- **Food sciences, production, and regulation**
- **Government:** research and policy development
- **Industry:** consultation, product development/testing
- **Medicine and dentistry**
- **Other health-care professions**
- **Veterinary science**

## Career-Readiness Competencies



**Critical Thinking &  
Problem Solving**



**Professionalism &  
Work Ethic**



**Teamwork &  
Collaboration**



**Communication**



uwindsor.ca



# Campus Resources

- Research scholarships and bursaries through the **Student Awards and Financial Aid Office**
- Visit **Leddy Library** and the **Writing Support Desk** for help with academic assignments
- Check out the **Bounce Back** program designed to improve academic performance as well as decrease feelings of stress and anxiety through both effective learning strategies and life skills acquisition
- Build leadership skills and find leadership opportunities at the **Leadership Hub**
- Get advice and support about your academic status by making an appointment with **Academic Advising**
- Seek out assistance with academic accommodation from **Student Accessibility Services**
- Discover ways to get involved on campus through the **Student Success and Leadership Centre**
- Look into the **Ignite: Work Study** program for on-campus employment opportunities
- Get assistance developing your career plan and job search skills from **Career Development and Experiential Learning**
- Consult with the **EPICentre** if you are interested in starting your own business
- Broaden your cultural awareness through the **International Student Centre** and **Student Exchange Office**
- Find support for Indigenous learners and broaden your understanding of Indigenous culture by visiting **Turtle Island**
- Tend to your health and wellness with support from **Student Health Services**, the **Wellness Outreach Office** and **Lancer Recreation**
- Receive confidential mental health counselling delivered by trained professionals at the **Student Counselling Centre**
- **Prevent.Resist.Support.** Seek personal support or learn more about sexual violence prevention and resistance education through the **Sexual Misconduct Response and Prevention Office**
- Explore professional development opportunities through **Continuing Education**



[experience.uwindsor.ca](https://experience.uwindsor.ca)

## Student Recruitment

Phone: 519-973-7014  
Toll-Free: 1-800-864-2860  
Email: [info@uwindsor.ca](mailto:info@uwindsor.ca)

## Department of Integrative Biology

Phone: 519-253-3000, Ext. 2695  
Email: [biosci@uwindsor.ca](mailto:biosci@uwindsor.ca)

## Career Development and Experiential Learning

Phone: 519-253-3000, Ext. 3895  
Email: [careerservices@uwindsor.ca](mailto:careerservices@uwindsor.ca)