Bachelor of Science

Neuroscience

ABOUT THE PROGRAM

The Bachelor of Science in Neuroscience (NEUR) provides a foundation in the natural sciences, an opportunity to develop advanced knowledge of nervous system structure and function, and the skills required for independent inquiry within neuroscience. The specialization is unique in its emphasis on integrative/interdisciplinary problem-solving. Students may structure a program that emphasizes molecular and biomedical neuroscience, behavioural and cognitive neuroscience, or comparative neuroscience.

The major prepares students for professional programs in health science, and post-graduate degrees in neuroscience research, and provides a strong foundation for students wishing to pursue careers in the pharmaceutical and biotechnology industries, public health, teaching, and scientific publishing & journalism. With a broad scope of career options, NEUR co-op students will build transferrable skills during co-op work terms contributing to their work readiness and career prospects upon graduation.

WHY CO-OP?

As a co-op student, you will gain relevant work experience, build professional networks, and develop essential transferable skills needed to succeed in the workplace, all while getting paid and earning your university degree. Guelph's co-op program is unique due to the exceptional level of support provided to students, through peer helpers and Career Advisors, a job search preparatory course, and a personal connection with a Co-op Coordinator to assist you during the employment process and during work terms.

COURSE SEQUENCING

The Neuroscience co-op program sequence includes one 4-month and one 12-month work term. This sequence meets the Co-operative Education and Work-Integrated Learning Canada (CEWIL) accreditation requirements

YEAR	FALL	WINTER	SUMMER
ONE	Academic	Academic	Off
TWO	Academic	Academic	Work
THREE	Academic	Academic	Work
FOUR	Work	Work	Off
FIVE	Academic	Academic	

recruit@uoguelph.ca
519-824-4120 ext. 52323
uoguelph.ca/coop

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SAMPLE JOBS

Junior Programmer - Outreach Programs

The student will assist with the provision of therapeutic social/recreational activities, monitoring and behaviour interventions for Adult Day Program participants. The student will also assist with the assessment of participant needs and areas of intervention in consultation with the Director of Outreach.

User Experience (UX) Researcher

The student will be a member of a team that delivers various experience design projects while ensuring that cross-functional teams can go through the process of examination, experimentation, and execution - putting humans at the centre of the problems we are solving for clients. The student will conduct research, create data-driven UX artefacts, and develop communication materials.

3-D Neural Organoid Co-op Student

The student will work with the Neural and Ectodermal team within the Research and Development department, developing culture conditions to differentiate human pluripotent stem cells into 3-D brain organoids/spheroids. 3-D Brain organoids are a cutting-edge model to study neural development and disorders.

Additional Sample Jobs: Research Assistant, Laboratory Technologist, Medical Sciences Co-op, Project Coordinator

SAMPLE EMPLOYERS*

- University of Guelph
- St. Joseph's Healthcare
- STEMCELL Technologies
- Various banking institutions

*Sample co-op employer list only. Employers will vary depending on recruitment needs. During a job search, students are encouraged to be actively engaged and are also supported in establishing and maintaining their own personal contacts.

SALARY INFORMATION

Students receive compensation from their employer for co-op work terms. The rate of pay will vary depending on a number of factors including the industry, the student's program of study, and work term level. For your reference, a Co-operative Education Salary Guide is available on our website, which provides hourly rates (averages and ranges) for each degree program.

SKILLS & KNOWLEDGE ACQUIRED

- An understanding of the applications of neuroscience in relation to the ethics of advancing human health and treatment of animals.
- Ability to integrate information across levels of biological organization (from atoms to behaviour) to explain nervous system function.
- Ability to interpret evolution of nervous systems from patterns of diversity and phylogenetic processes.
- Able to perform and interpret basic neuron and neuron network computer modelling.
- Ability to identify the contribution of technical discoveries in histology, physiology, molecular biology and computer modelling to developments in neuroscience research and its practical applications