

Bachelor *of* Cognitive Science



Carleton
UNIVERSITY

Canada's Capital University

carleton.ca



If you are interested in how people, animals or computers think, then join us in Cognitive Science and learn how to study the mind and the brain.

Cognitive science involves the study of cognition, perception, and emotion from perspectives that include the exploration of abstract concepts, detailed empirical research on language and cognition, the study of brain mechanisms, and computer modelling. Despite the many different methodologies they use, cognitive scientists are united in their interest in the mind—and the brain.

Program of study

Carleton's Bachelor of Cognitive Science (Honours) program, offered through the Institute of Cognitive Science, is designed to be completed in four years of full-time study. The program consists of three elements: a core of courses taken by all students together in each year, an area of specialization chosen from the five possible areas, and optional courses you select according to your interests.

Researchers in our program (students and faculty members) study the mind by combining the methods and theories of five disciplines: psychology, philosophy, linguistics, neuroscience and computer science. This interdisciplinary approach allows unique insights into human understanding, thought, perception, language and emotion—using a diverse range of methods including the study of abstract concepts, computer models of cognition, empirical research into language, problem-solving, imagination, complex thinking and children's learning, and applied research on the interface between humans and machines.

In first year, you will take introductory courses in linguistics, psychology, philosophy and computer science. You may choose to take a first-year introduction to cognitive science or select from one of the first-year seminars that focus on cognitive science.

By your second or third year of study, you will begin to develop your expertise in one of five areas of specialization:

THE BIOLOGICAL FOUNDATIONS OF COGNITION

This specialization studies how the brain achieves cognition. Your specialization course work will be in neuroscience and psychology.

COGNITION AND COMPUTATION

This specialization focuses on the use of computers to study cognition, and so your specialization courses will be in computer science.

COGNITION AND PSYCHOLOGY

This specialization focuses on empirical research into cognition. Your specialization courses will be in cognitive psychology.

LANGUAGE AND LINGUISTICS

This specialization focuses on language and how it works in cognition. Your specialization courses will be in linguistics.

PHILOSOPHICAL AND CONCEPTUAL ISSUES

This specialization is based in philosophy and focuses on the concepts used in Cognitive Science. Your specialization courses will be in philosophy.

HONOURS RESEARCH PROJECT

As a senior student, you can choose to complete a year-long research project on a topic in cognitive science. The Honours Thesis project allows you to work closely with a faculty supervisor on a specific topic within your area of specialization.

OTHER RESEARCH OPPORTUNITIES

As a senior student, you may find yourself assisting in areas of research such as natural language processing, speech perception, cognitive engineering, formal properties of grammars, modeling and simulation of games, human attention and performance, philosophy of mind, development of children's thinking, semantics or genetic algorithms.

The Carleton advantage

How does Carleton's program in Cognitive Science differ from those offered at other universities?

At Carleton, the Cognitive Science program is offered by an independent, fully functioning academic unit: the Institute of Cognitive Science. At other universities, cognitive science is usually offered through one of the related disciplines. We offer more dedicated cognitive science courses than most universities and we have a core group of faculty members who were hired as 'cognitive scientists.' The Institute also offers Master's and PhD degrees, and has a thriving academic agenda with presentations by leading Cognitive Scientists from across North America. Finally, your degree will be a Bachelor of Cognitive Science (BCogSc) rather than a Bachelor of

Science or a Bachelor of Arts. This unique degree designation will highlight your interdisciplinary training and expertise that covers science, humanities and social sciences.

You can also take advantage of a variety of on-campus research facilities including those associated with the Visualization and Simulation Centre (VSIM), the Language, Logic, and Information Lab (LLI), the Science of Imagination Lab (SOIL), the Language and Brain Lab, the Centre for Applied Cognitive Research (CACR) or the Children's Representational Development Lab (CRDL).

The capital advantage

Cognitive Science at Carleton has forged strong links to resources in and around Ottawa, the nation's capital.

You will benefit from access to facilities such as the National Research Council Canada, government research laboratories and Ottawa's large high tech community.

CO-OP OPPORTUNITIES

The co-op option in Cognitive Science enables you to apply your skills in a variety of settings.

For example, you may find work in software interface design, improving websites, developing efficient procedures for querying databases, designing and analyzing surveys, or developing novel ways to visualize data.

Careers

As a graduate of Carleton's Cognitive Science program you will be well-equipped with the analytical, communication and research skills necessary for a wide range of career paths. The Bachelor of Cognitive Science provides ideal preparation for careers in cognitive research in

universities, government research facilities or private companies; mind/machine interface research; website usability design; language processing research; or speech pathology or occupational therapy (both with further study).

Graduate studies

Graduates of our program are generally well qualified to go on to graduate studies in a variety of fields. If you think that you may wish to pursue an advanced degree, you are encouraged to investigate graduate programs early in order to ensure that your program is suited to meet the relevant graduate-level requirements.

Professional programs

Many professional programs, such as teaching, medicine and journalism, are interested in attracting well-rounded applicants from a variety of backgrounds. Cognitive Science provides a strong foundation for such programs.

Admission requirements

For admission to the Cognitive Science program, you must have the Ontario Secondary School Diploma (OSSD) or equivalent including a minimum of six 4 U/M courses. Your six 4 U/M courses must include English (or Anglais).

It is Carleton University policy to consider your best performance in any eligible course in the admissions assessment. Since the number of qualified applicants may be greater than the number of available spaces, cut-off averages and required marks may vary. Please refer to our website at admissions.carleton.ca/requirements for the current admission requirements.

Connect with Carleton



UNDERGRADUATE ADMISSIONS WEBSITE

This website is for prospective students. Everything a new student needs to know about Carleton University, including programs, campus life, co-op, scholarships and awards can be found here. carleton.ca/admissions



STUDENT BLOGS

Students share their thoughts about campus life, their professors and programs, and the transition from high school to university. carleton.ca/blogs



GRADUATE STUDIES WEBSITE

Carleton is home to more than 100 graduate programs. This website provides all the information required to make a decision about graduate school. graduate.carleton.ca



Insight

ELECTRONIC NEWSLETTER

Receive up-to-date news about Carleton University's

undergraduate academic programs, upcoming on- and off-campus recruitment events and more. Register for our monthly electronic newsletter Insight@Carleton. carleton.ca/insight



ASK CARLETON

You have questions and we have the answers online anytime, day or night. ask.carleton.ca



Check out our Facebook page to learn more about prospective student news and events, or to view photos from around the Carleton campus. facebook.com/carletonfuture



Follow us on Twitter [@carleton_future](https://twitter.com/carleton_future). You'll get all the latest news and announcements for future students. twitter.com



Discover Carleton with our new Carleton Admissions mobile app for future students. The app is available for Apple and Android mobile devices. carleton.ca/mobile

Watch our videos

Visit our ever-expanding video gallery where you can view short videos on our campus, our residences, our co-op programs and more. admissions.carleton.ca/video

Take a tour

We encourage all prospective students and their families to visit our beautiful riverside campus. Book a tour online at carleton.ca/tours, by email at tours@carleton.ca or by phone at the Undergraduate Recruitment Office number listed below. If you can't visit us in person, you can explore our interactive campus map or take one of our program-specific virtual tours at admissions.carleton.ca/virtual-tours.



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