

# Strategic Plan

Carleton University is a comprehensive university located in Canada's capital. The Faculty of Science was founded in 1963. Today the Faculty of Science is comprised of over 2,200 students, 132 faculty and 61 staff members. It is a caring community of scholars dedicated to a personal education for our students as well as creating and applying knowledge in the service of our local and global communities. Excellence, innovation, and creativity characterize our research, teaching and service. This faculty strategic plan articulates our aspirations based on our values and building on our strengths.

It is a dynamic plan, building on the strategic plan for the Faculty that was developed in 2004. The objectives and initiatives will change over time as goals are achieved. We will visit the overall strategic plan periodically to ensure currency and to be in the full support of the mission, vision, and values of the University.

### **Vision**

### To be the Science Faculty of choice in Canada

- for students and alumni who value a comprehensive and life-enriching science education,
- for faculty and staff pursuing excellence and innovation in teaching, service and research, and
- for individuals and organizations seeking partnerships with the scientific and technological community of the Nation's Capital.

## Mission

To create, disseminate, and apply scientific knowledge. We innovate and excel in teaching and research, so as to advance the goals of the University and the development of society.

### RESEARCH STRENGTHS

- Algebra
- Advanced Information Management
- Algorithms and Data Structures
- Behavioural Ecology
- Biochemistry and Physiology
- Biotechnology and Bioinformatics
- Cell and Developmental Biology
- Cryptography/Security
- Discrete mathematics
- Ecology and Evolutionary Biology
- Geophysics
- Information Management
- Insect Biology
- Mathematical Analysis
- Medical Physics
- Molecular Biology
- Nanotechnology
- Neuroscience
- Parallel & Distributed Computing
- Particle Physics
- Plant Biology
- Security
- Sedimentary Systems
- Sensors
- Statistics/Probability
- Stress Biology
- Tectonics
- Wireless Networks

## **Our Core Values**

- Excellence in research
- Excellence in teaching
- Integration of research & teaching
- Shared responsibility for learning
- Commitment to student success and academic standards
- Connection to community
- Increase the awareness and appreciation of science in society
- Alumni engagement
- Respect and integrity
- Shared governance and collegiality

# The Faculty of Science comprises:

### Departments of:

- Biology
- Chemistry
- Physics
- Earth Sciences

#### Schools of:

- Computer Science
- Mathematics& Statistics

### Institutes of:

- Biochemistry
- Environmental Science
- Integrated Science

Technology, Society, Environment Studies Program

# **Our Strengths and Advantages**

- 1. A successful research-active faculty. We are very active in fundamental and applied research.
- 2. Discovery-based learning. We take pride in maintaining this feature of pedagogy in our Faculty. High quality laboratory experiences and field trips are key features. We involve undergraduates in our research.
- 3. A diverse and collegial community. There is a sense of identity and community at Carleton. We are also a diverse community and wish to see this diversity continue to increase as we seek to be more international and a welcoming community.
- 4. A beautiful and safe campus in Ottawa, Canada's Capital.
- 5. Proximity to government agencies, research institutions, hospitals and a wide range of industries.
- 6. Policy and regulation. There is a high degree of interaction with government departments and agencies at Carleton University.
- 7. Engagement with society. We live and work in a society receptive to the translation of science and the transfer of that knowledge to the public. We host lectures such as the Discovery and Herzberg as well as public forums such as the Science Café.
- 8. Strong scholarship support. Carleton stands out in our financial support to undergraduate and graduate students.

## **Our Goals**

- 1. Educate successful students. We wish to attract and retain well prepared, engaged and motivated students. We will teach, advise, and support our students so they can realize their aspirations. We will strive to provide our students with the best possible teaching assistants to support their learning. We will continue to encourage learning through discovery. We wish our students to develop a sense of commitment to a life-long affiliation to the Carleton community.
- Maintain a strong faculty and staff complement. Attracting and retaining the best faculty and staff is the foundation to all our goals and aspirations. We will provide professional development for our staff.
- 3. Build on our research strengths: We will build on our strengths listed above, led by curiosity and the needs of society. We will continue to build on internal synergies and collaborate with external partners. We will strengthen our research infrastructure, building and improving space as needed and maintaining major instrumentation.

**Seven Canada Research Chairs** 

One 3M award winner

**Three NSERC Industrial Research Chairs** 

Six Royal Society of Canada professors

National Wildlife Research Centre located on campus

One Fulbright Scholar 2007-08

Total research funding 2007-08 \$25,207,447

- 4. Maintain a strong, informed and collegial community. We value highly our strong community in our academic units, and collectively in our Faculty. We will ensure that each member of our community is informed and has every opportunity to participate in Faculty decisions and plans.
- 5. Strengthen administrative support with a view to give our students and faculty every opportunity to succeed.
- 6. Encourage a culture of innovation, entrepreneurship and creativity. The willingness to be open to exploring new ideas for research, teaching and service to our communities is vital. We will continue to develop opportunities within our traditional disciplines and between disciplines.
- 7. Promote our contributions to our local and global communities. We will contribute to the public understanding of our science through various communication activities. We will increase our participation in hosting conferences and research centres.
- 8. Expand our role in the international community. We will expand our vision beyond our national and continental horizons.
- 9. Foster communication and stay in contact with alumni.
- 10. Encourage life long learning by providing such opportunities to our students, alumni and society in general.

# **Moving Forward**

This is a new beginning. Encouraged by significant investments in the renewal of our infrastructure and the growth of the Faculty of Science being supported by the university strategic plan, we are energized by the potential for growth and development of our Faculty.

We will work towards achieving the above goals through the development of innovative programs and the forging of strategic partnerships. A working group will develop themes and plans for the expansion and further development of the Faculty of Science.

You will see the individual plans for each of the academic units in the Faculty. These strong and focused Plans form the foundation of the faculty plan. We invite your comment and participation in all that we aspire to accomplish.



