UNIVERSITÉ
Concordia
UNIVERSITY

**FACULTY OF ENGINEERING
AND COMPUTER SCIENCE**

INSPIRING A NEW GENERATION OF ENGINEERS AND COMPUTER SCIENTISTS

2016-2021 STRATEGIC PLAN

From its inception, Concordia has aspired to be a comprehensive university with a strong commitment to accessibility and social responsibility. Our 2016-2021 strategic plan reaffirms the University's aspirations, while setting out key strategic initiatives to enable ENCS to become a world leader in training engineers and computer scientists to design the next generation of integrated technologies for a rapidly evolving world.

VISION

ENCS will be a distinguished engineering and computer science school recognized for academic innovation, research excellence, and its positive contribution to society.

MISSION

ENCS will continue to train the next generation of engineering and computer science leaders advancing integrated technologies in a socially responsible manner.

VALUES

Dedication – We advance the frontiers of knowledge through scholarship and research of the highest quality. We strive for excellence in everything we do.

Experiential Education – By synthesizing curricular, co-curricular, and experiential opportunities, we provide students with a world-class learning experience that prepares the next generation of engineering and computer science leaders.

Collaboration – We are continuously exploring interdisciplinary relationships between engineering, arts, business and sciences, and seeking emerging fields to address complex real world problems.

Culture – We cultivate an environment that values integrity, professionalism, transparency, and ethical conduct of the highest standards.

Leadership – We advance the frontiers of knowledge through teaching and research of the highest quality.

Community – Our people are our greatest assets. We take pride in fostering an inclusive and diverse community in our Faculty, on our campus and in the world beyond our doors, our city and its people.

STRATEGIC IMPERATIVES

For the next five years, the following six strategic imperatives will drive ENCS towards a brighter future:

1

ENHANCING RESEARCH QUALITY AND REPUTATION

Double your research

2

EXCELLENCE IN ACADEMIC PROGRAMS THROUGH INNOVATION

Teach for tomorrow

3

ELEVATING STUDENTS' LEARNING EXPERIENCE TO NEW HEIGHTS

Get your hands dirty, Go beyond

4

EMBRACING INTEGRATION ACROSS ENGINEERING, ARTS, SCIENCE, AND BUSINESS

Mix it up, Experiment boldly

5

EMPOWERING STUDENTS, FACULTY, AND STAFF TO SUCCESS

Take pride, Grow smartly

6

ENABLING INTELLECTUAL AND ECONOMIC VITALITY OF OUR COMMUNITY

Embrace the city, embrace the world

Shown in italics are Concordia University's strategic directions

District 3 Innovation and Entrepreneurship Centre: An accelerator of innovation at Concordia University that nurtures entrepreneurial spirit in early-stage start-ups.

1 | ENHANCING RESEARCH QUALITY AND REPUTATION

To foster an environment that promises excellence in research, promotes its dissemination through scholarly publications, and tests the traditional boundaries of knowledge, we will:

- Develop organized research units and centres of excellence in areas of strategic importance to the Faculty and University, while sustaining and strategically expanding our existing fields of strength.

- Better profile research activities that will bring focus and recognition to our research achievements.

- Attract and retain the brightest graduate students, researchers, and faculty through major investment in research.

- Align graduate program offerings with our research priorities to better train our graduate students to undertake cutting-edge research.

- Review the existing Graduate Student Support Program (GSSP) to better suit the needs of the ENCS graduate students.

- Work with the University to provide improved support to the needs of the researchers.

Student-Centered Learning Experience: Developing skills and practices that enable problem-solving and encourage experiential education and lifelong learning.

2 EXCELLENCE THROUGH INNOVATION IN ACADEMIC PROGRAMS

In our pursuit of academic excellence, quality and innovation, we will:

- Develop innovative graduate and undergraduate programs in next generation technologies in consultation with industry while preserving the strength of our existing offerings.

- Enhance the quality of existing programs and the effectiveness of their delivery to keep them up-to-date with progress being made in the field and relevant external trends.

- Ensure that the first year curriculum provides the necessary foundation for students to be well prepared for their specializations.

- Ensure maximum flexibility in our curriculum to allow students to customize programs to achieve their career aspirations.

- Celebrate teaching by increasing visibility and coverage of ENCS teaching awards. Foster a partnership with Concordia's Centre for Teaching and Learning to cultivate innovative pedagogy and recognized practices of student-centric teaching in ENCS classrooms.

- Keep growth in full-time faculty complement commensurate with enrolment progression at all times.

Troitsky Bridge Building Competition: An international student event hosted by Concordia University since the 1960s where students design innovative bridges using popsicle sticks as building materials.

3 ELEVATING STUDENTS' LEARNING EXPERIENCE TO NEW HEIGHTS

To enhance learning that enriches students' experience both inside and outside classrooms, we will:

- Create a student-centric learning environment that focuses on the needs of students.

- Strengthen engineering design by focusing on hands-on activities in the curriculum, by increasing opportunities for students to have international experiences and by expanding co-curricular activities and experiential education opportunities.

- Promote varied individual initiatives that integrate and enhance student learning, satisfaction and success.

- Expand and enrich eLearning as a tool to enhance learning by promoting communications and increasing flexibility.

- Develop a coordinated approach to student advising that encompasses academic matters, campus life, students' mentorship and future aspirations, among other student-related matters. Enhance the first year experience by fostering students' transition to the university.

- Cultivate strong interdisciplinary skills such as entrepreneurial spirit, leadership, social consciousness, and global business acumen to complement students' strong technical knowledge, design skills, and problem solving abilities.

Capstone Design Project: The culmination of undergraduate engineering education with design/research projects that apply fundamental science, mathematics, and engineering design and analysis to real-world problems.

4 | EMBRACING INTEGRATION ACROSS ENGINEERING, ARTS, SCIENCE AND BUSINESS

To create an interdisciplinary environment that spans the domains of arts, science, humanities and engineering, we will:

- Enhance curriculum to cultivate strong interdisciplinary skills to complement technical knowledge, design skills, and problem solving.

- Leverage pan-university collaborations to catalyze research, education and outreach.

- Develop an interdisciplinary framework for research by assembling individual stars from across the University to solve complex real-world problems.

- Build partnerships with other universities and the industrial community and better liaise with funding organizations to lead large, team-based, multidisciplinary research grants.

- Establish a new mechanism for hiring faculty who bridge departmental boundaries.

An Example of Hands-on Learning Pedagogy: A soda-can powered micro stream engine designed as part of a thermodynamics class.

5 EMPOWERING STUDENTS, FACULTY, STAFF, AND ALUMNI TO SUCCESS

In order to create a stimulating, thought-provoking and supportive culture, we will:

- Nurture the leadership capacity of all the members of our community, plan for their career development path and to help them achieve their professional goals.

- Review ENCS administrative infrastructure to ensure that the committees and procedures are responsive, accountable, transparent, and integrated and that they support the business of the Faculty.

- Establish processes within ENCS that strengthen integrity, professionalism, transparency, and ethical conduct of the highest standards.

- Encourage dialogue and participation to build a sense of shared values and a common purpose.

- Improve common spaces that offer places for quiet study, group study, relaxation, informal social interactions and recreational activities.

Global Engineering: Developing an appreciation for sustainable development by understanding how technology influences social and economic change within a society.

Innovative Programs in Next Generation Technologies: Focused on developing future leaders and innovators advancing integrated technologies in a socially responsible manner.

ENABLING THE INTELLECTUAL AND ECONOMIC VITALITY OF OUR COMMUNITY

To contribute significantly to the sustainable intellectual and economic development of our community, we will:

- Cultivate an inclusive environment where students, faculty, staff, and alumni value a shared sense of community.

- Provide students, faculty, staff, and alumni with opportunities for community involvement that address their aspirations and challenges.

- Participate actively in building a sustainable society, working to find solutions to environmental and social issues.

- Pursue collaborations with other institutions and organizations that align with our strategic goals and meet the communal needs locally and globally.

- Integrate social responsibility and community-based activities into our curriculum.

Help inspire the next generation of engineers and computer scientists.

Share your ideas.
Learn more.
Get involved.
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concordia.ca/encs/directions
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