

Faculty of Science

Top Accomplishments - April 2022, Year-End Evaluation

1. Community consultation and guidance for our future: Launch of new Strategic Plan & Dean's Special Advisory Board

The Faculty of Science launched its 2021-2025 Strategic Plan, [Science for the Future](#), after extensive consultation with faculty, researchers, staff, students, and community stakeholders. The Dean's Office hosted a virtual Town Hall and retreats, a faculty-wide survey, and other mechanisms to better understand what priorities should form the cornerstone of the Faculty's mission and objectives over the next five years. The Dean's Special Advisory Board, launched in February 2021, was also consulted in this process. The Advisory Board, comprised of a diverse group of industry and community leaders will help the Faculty establish and strengthen relationships with partners in the life sciences, biotech and health communities and accelerate the success of our students and faculty.

2. Program innovation: New BSc / BA in Data Science and Markham Campus planning

Faculty Council approved the new BSc/BA in Data Science, with Senate review expected in Winter 2022 and program launch in Fall 2023. In an untapped market where demand for data science professionals is projected to increase rapidly, the Faculty of Science and York University can emerge as a dominant competitor. In terms of Markham Campus programming, the First Year Common Science program was approved by Senate; the professional Masters of Biotechnology Management is undergoing Quality Council review prior to Ministry approval. Both are on track for launch in Fall 2023. A framework for micro-credentials is under development and the use of lab space to incorporate science research and a full BSc offering is under discussion.

3. Bettering our student experience: Top-tier student supports

NSSE for 2020 was reported in Fall 2021. FSc ranked #1 across York University, amongst 4th year students, in providing support for overall well-being, and #2 across all of York for providing support for students to succeed academically. To aid in the transition to university for incoming undergraduate students, for Summer 2021, the University adopted FSc's Summer Science Transition Program (SSTP) in a central website where it was branded YUPrep and included modules from across the University. Enrollment in our 5 courses continued to rise, exceeding 400, including many international registrations.

4. Improvements to Equity Diversity & Inclusion: New initiatives

In 2021, The Faculty initiated targeted searches to strengthen the representation of Black, Indigenous and female faculty members, including a successful search for a Black faculty member in Mathematics & Statistics. Searches are currently underway for a Black faculty member in pure mathematics, a female faculty member in statistics, an Indigenous faculty member in biology, and an Indigenous faculty member in environmental sciences. FSc increased its female faculty complement from 26.4% in 20-21 to 28.7% in 21-22, and its visible minority complement from 20.7% in 02-21 to 24.2% in 21-22. To help address the underrepresentation of women in Science, we launched a Dean's Scholarship for Women in Science. And, to further our EDI mandate within the Faculty of Science, in 2021 we launched an EDI committee of Faculty Council.

5. Building Global Partnerships: Increased internationalization efforts

With the help of our new International Collaborations and Partnerships team in the Faculty of Science, we are extending our reach across the globe to forge new institutional partnerships and collaborations that will benefit our students and faculty members. In 2021, we established new partnerships that will lead to joint programming, student exchange opportunities, new research collaborations and more. We signed seven new agreements with institutions in China, South Korea and France. We also created new awards and scholarships for international students coming to York Science, along with the Global Leaders of York Science program, a volunteer team that aims to provide undergraduate students with professional development opportunities that will enhance their employability skills and help them to develop a global mindset.

1. 21st Century Learning-test

Enhance the student learning experience.


Action/Strategy:

Develop new academic programs to meet (identified) labour market needs and student demand.

Measures/Metrics/Milestones:


- 1) Number of new programs researched.
- 2) Number of new programs developed and submitted to Senate for approval.

Evaluation Status:

 On Track


Develop micro-credential courses/programs.

- 1) Number of micro-credential courses/programs developed.
- 2) Number of micro-credential courses/programs approved and offered.

 On Track


Increase/enhance experiential opportunities for students.

- 1) List of all experiential opportunities available and the number of students participating in the experiences available (year over year).
- 2) Increased placement rate of eligible students.

 Progressing


Develop ONLN (online) courses and programs for Science.

- 1) Number of new ONLN courses developed for existing programs.
- 2) Develop one or more entirely ONLN HSc program(s).

 On Track

Increase Student-Faculty interaction re: worked with faculty member on activities other than course work.

- 1) Increased NSSE score from baseline of 1.86/7 (from 2017 NSSE Survey).

 On Track

Establish Science at the Markham Centre Campus (MCC).


Action/Strategy:

Actively engage in planning for Science at the Markham Centre Campus (MCC).

Measures/Metrics/Milestones:

- 1) Develop unique UG science programs and courses for the MCC.
- 2) Investigate and develop professional degree programs for the MCC.
- 3) Investigate and develop micro-credential courses and programs for the MCC.
- 4) Investigate ways to incorporate science research at the MCC.

Evaluation Status:

 On Track

2. Knowledge for the Future

DIVISION: Division of the VP Academic and Provost

UNIT: Faculty of Science

PLAN ID: 1368

Enhance and grow research strength in Science.


Action/Strategy:

Increase the number of research chair holders.

Measures/Metrics/Milestones:

- 1) Maximize the number of Canada Research Chairs (CRC) allocated to Science.
- 2) Increased number of York Research Chairs (YRC) in Science.
- 3) Increased number of Endowed Research Chairs and Industrial Research Chairs (IRC) in Science.

Evaluation Status:

 On Track

Identify research clusters in Science that can be grown and strengthened.

- 1) Identify 2-3 strong research clusters over the next 5 years.

 On Track

Diversify sources of research funding.


Action/Strategy:

Establish research partnerships outside of tri-council funding sources.

Measures/Metrics/Milestones:

- 1) Increased number of research partnerships established that are not tri-council.
- 2) Increase the percentage of funds coming from non tri-council sources.

Evaluation Status:

 On Track

Increased opportunities for faculty, graduate and undergraduate students to participate in research activities.


Action/Strategy:

Investigate sources of funds and awards to make research opportunities and placements available.

Measures/Metrics/Milestones:

- 1) Number of faculty members securing a research award.
- 2) Number of graduate students securing a research award/placement.
- 3) Number of undergraduate students provided with a research placement.

Evaluation Status:

 On Track

3. From Access to Success

Ensure successful student transition from high school to university.

Action/Strategy:

Measures/Metrics/Milestones:

Evaluation Status:

DIVISION: Division of the VP Academic and Provost

UNIT: Faculty of Science

PLAN ID: 1368

Develop enhanced learning courses/programs and supports for new incoming students.

- 1) Number of students registered for non-credit transition courses.
- 2) Performance of students completing the non-credit transition courses.
- 3) Courses and programs developed and offered.
- 4) Increased student preparedness after taking SMC courses.

On Track

Faculty complement renewal to focus on teaching and learning excellence.

- 1) Positive student evaluations for new faculty teaching.
- 2) Improved NSSE scores for faculty teaching satisfaction re: Effective Teaching Practices.

On Track

Students have access to timely and excellent program and academic advising.

Action/Strategy:

Student advising services has accessible and knowledgeable staff who respond to student program and academic inquiries accurately and in a timely manner.

Measures/Metrics/Milestones:

- 1) Student satisfaction with advising services.
- 2) Student advising services effectively use early alert systems to identify academically at risk students and make early contact for supports.

Evaluation Status:

Progressing

4. Advancing Global Engagement

Increase the number of international students enrolling in the Faculty of Science.

Action/Strategy:

Enhance international recruitment activities.

Measures/Metrics/Milestones:

- 1) Hire a Director focusing on international student recruitment for Science.
- 2) Director to hire Recruitment Officer and International Recruitment Manager team.
- 3) Diversify the countries our international students are coming from so we are not dependent on 1-2 countries for these students.
- 4) Increasing international UG student enrolment year over year.

Evaluation Status:

On Track

Increase the number of international research partnerships with Faculty of Science researchers and research teams.

Action/Strategy:

Seek new research partnerships with international collaborators.

Measures/Metrics/Milestones:

- 1) Number of international research partnerships established.

Evaluation Status:

On Track

DIVISION: Division of the VP Academic and Provost

UNIT: Faculty of Science

PLAN ID: 1368

Strengthen the Faculty of Science commitment to Equity, Diversity and Inclusion (EDI)


Action/Strategy:

Establish Dean's Committee on EDI

Measures/Metrics/Milestones:

- 1) Establish 2020 baseline of EDI make up of Science faculty members.
- 2) Establish 2020 baseline of EDI make up of Science staff members.
- 3) Develop plan to address gaps in science EDI composition.
- 4) Provide EDI workshops.

Evaluation Status:

 On Track

5. Working in Partnership

Strengthen FSc engagement and profile through diverse partnerships.

Action/Strategy:

Establish new partnerships and associations.

Measures/Metrics/Milestones:


- 1) Engage and partner with our alumni in support of Science students and programs.
- 2) Partnerships with industry to enhance the quality of new or existing programs.
- 3) Engage in partnerships with internal divisions and Faculties to develop new programs or enhance existing programs.

Evaluation Status:

 On Track

Seek naming of the Faculty of Science and/or Departments.

- 1) Research and engage potential donor for major naming of the Faculty of Science.
- 2) Research and engage potential donor for naming of science departments.

 On Track

6. Living Well Together

Enhance the Science spaces environment.


Action/Strategy:

Prioritize and optimize Science assigned spaces.

Measures/Metrics/Milestones:

- 1) Review and analyze current space use in science.
- 2) Determine priority space requirements.
- 3) Plan to align space use with the determined priorities.

Evaluation Status:

 Completed

DIVISION: Division of the VP Academic and Provost

UNIT: Faculty of Science

PLAN ID: 1368

Upgrade and refresh science spaces to make spaces more usable and comfortable for students, staff and faculty.

- 1) Renovation/refresh of science teaching lab space.
- 2) Renovation/refresh of staff work spaces.
- 3) Renovation/refresh of departmental space.

 On Track

Strengthen staff and faculty commitment to the Faculty of Science and York University.


Action/Strategy:

Instill the concept of service excellence throughout the Faculty of Science.

Measures/Metrics/Milestones:

- 1) Complaints about instructors and staff decrease.
- 2) Retention of staff improves.
- 3) Retention of faculty members and instructors improves.

Evaluation Status:

 Progressing

Enhance the engagement level of faculty, staff, students, alumni and external partners with the Faculty of Science.

- 1) Opportunities to involve faculty, staff and students in FSc planning and events.
- 2) Involvement of alumni in FSc planning and events.

 On Track

7. Answering the Call

Enhance quality of science education.


Action/Strategy:

Increase student success in science programs.

Measures/Metrics/Milestones:

- 1) Provide annual summer module courses in the science disciplines for incoming first year science and other students at York to improve understanding and transition to first year university programs.
- 2) Partner with other Faculties to provide summer module courses to ensure consistency of quality and efficiency.
- 3) Regular review and improvement of courses for quality and learning outcomes.

Evaluation Status:

 On Track

Demonstrate the benefits of the science mindset to support the goals of critical thinking, responsible environmental stewardship, development of innovation, and feelings of personal agency to support UN SDGs amongst children and youth.


Action/Strategy:

Provide science enrichment programs for children and youth that support engagement in activities that develop critical thinking and personal agency.

Measures/Metrics/Milestones:

- 1) Offer and design programs for children and youth that maintain financial viability and that generate registrations at levels of 85% to 100% capacity.

Evaluation Status:

 On Track


DIVISION: Division of the VP Academic and Provost

UNIT: Faculty of Science

PLAN ID: 1368

Offer programs that encourage pursuit of science by females and individuals from economically challenged backgrounds.

- 1) Creation of programs and sections that are designed to be attractive to female participants through female-only registration or programs geared to female participation.
- 2) Ensure, via operational funds and/or external funding, at least 5% of SEP (Science Engagement Programs) participants, who would otherwise not be able to register due to economic hardship, are able to register in SEP programs.

 On Track