

CONSULTATION SURVEY: WHAT WE ARE HEARING

Overview of survey

As we define the priorities for our Strategic Plan 2025-2030, we know it is important to hear from our Waterloo Engineering community. To this end, we recently shared a short answer survey with a variety of stakeholders (faculty, staff, students, alumni and friends). We received a range of thoughtful responses, and we are now beginning the process of integrating this important feedback into our next strategic plan.

There were over 500 responses to the survey, including over 300 undergraduate students, 95 graduate students, 53 staff, 37 faculty members, 9 Post-docs/Research Associates and other members of our community.

Thank you to everyone who took the time to share their thoughts.

The following report summarizes the information and ideas offered by our survey participants. The survey and our report were intentionally divided into distinct sections, however, we recognize that all these areas are interconnected.

What makes us Proud

People are proud of Waterloo Engineering because of our unique history, the connections we make with our community and industry and the positive impact our research and other scholarly activities make in the world. Sources of pride include:

- Excellence – our outstanding students, staff, researchers, and instructors.
- Co-operative Education – industry connections, job opportunities, career preparation.
- Entrepreneurship – commercialization, economic impact, and alumni success stories.
- Innovation – where hard work, rigour and curiosity meet.
- Community – our intentional efforts to create a stronger sense of community, support and inclusivity; recognizing there is still much work to be done.



“I feel like I’m getting the best engineering education in Canada! I’m always challenged and supported to reach my peak level as a future engineer.”

Learning

As we look to the future, the delivery of learning opportunities must evolve to meet the changing needs of society. Waterloo Engineering must continue to differentiate itself from emerging options in the education sector. Recommendations included:

- Expand our unwavering commitment to experiential, hands-on learning for all graduates.
- Bring new technology into the curriculum and learning experiences, including AI and immersive tech.
- Create opportunities for deeper integration between co-op experiences and academic activities, such as capstone projects, class projects etc.
- Develop flexible learning pathways that empower students to follow their passions, from tackling large societal challenges with students outside of engineering to entrepreneurial or community-based endeavours.
- High-impact learning activities, such as an interdisciplinary culminating project and enhanced co-op opportunities for graduate students.
- Greater connections between the research we pursue and our undergraduate students.
- Increased opportunities to participate in interdisciplinary design teams that address challenges spanning multiple disciplines and connect to the real world.
- Link design challenges (curricular and co-curricular) to the Global Futures and promote responsible design for social good.

“Engineering has excellent undergraduate co-op programs and capstone projects. This could be extended to graduate studies.”

“To keep being innovative, we should change how students learn by using new technologies like virtual reality and artificial intelligence in classes, encouraging students from different subjects to work together, focusing more on practical projects, and giving students chances to solve real-world problems through internships and partnerships with companies.”

Research

We must further support our researchers to tackle the most complex problems facing society and our planet. To uphold our excellence in research, survey respondents emphasized the following ideas:

- Integrating Waterloo Engineering researchers in experiential learning activities – Ideas Clinic, Design Days, Capstone Projects – inspiring our future researchers to pursue value driven work that can improve their global outlook.
- Building trust in higher education institutions through improved public engagement and publicising impactful research capabilities and outcomes.
- Finding different ways to share knowledge and reach a wider audience – examples mentioned in survey responses: Art in Engineering and Research, GradFlix.
- Our interconnected Global Futures will require interdisciplinary research approaches within the Faculty, University and beyond (multi-institutional, industry, policymakers etc.)
- Communicating our areas of research expertise and impact in ways that enhance understanding.

“Almost 80-90% students are not aware about the practical work or research work going on around campus in their particular field...even if they are capable enough to contribute, they are unable to even get involved or know about it.”

“Showcase factual evidence from trustworthy people - scientists, engineers, researchers, and whoever else has the numbers, facts, and proof that we need to tackle issues facing humanity and our planet.”

Physical Spaces

Physical infrastructure supports the wellbeing of employees, research discoveries, and learning outcomes of our students. By designing spaces that ignite curiosity, create community, and inspire learning, we can realize the full potential of Waterloo Engineering. Suggested actions toward optimizing our facilities include:

- Continue to invest in infrastructure that supports experiential learning: labs, machine shops, design spaces, and the ideas clinic. Consider the creation of an additional space to work on passion projects and entrepreneurial endeavours.
- Create more physical infrastructure for casual interactions, often defined as “Third Places.” These spaces should be accessible to all students and employees.

- Spaces should be flexible and serve a variety of needs: community, industry and alumni engagement, research seminars, extra-curricular activities and events.
- Spaces should encourage healthy lifestyles, providing access to nutritional food, movement moments and mental health supports.
- Move towards carbon neutrality.
- Infuse our spaces with history, art and nature to inspire creativity and improve mental health and wellbeing.

“There needs to be more “third places” where students can simply exist outside of the classroom and home, to promote cross program interaction and create new connections that form the lifeblood of the Waterloo engineering community.”

Administrative Systems

Our administrative practices and processes support excellence in learning and research. To unleash the full potential of Waterloo Engineering we need effective administrative systems. The below outlines some strategic recommendations:

- Develop approaches and solutions that fit departmental needs while supporting knowledge sharing across the Faculty.
- Staff performing similar roles in different departments should connect regularly to problem solve and build community.
- Where appropriate, repetitive administrative tasks should be considered for automation and efficiencies.
- Communicate connection between administrative activities and strategic priorities.

“We need to feel like we’re on the same team, not one department against the others. Opportunities for cross-communication and community building across faculty units.”

Other Considerations

The survey was designed to specifically provide commentary on our strategic planning priorities. To ensure all ideas could be communicated, we created an open-ended, free form question. Some themes that emerged included:

- Our community must continue to address loneliness, wellbeing, and mental health of our students and employees. Creating a sense of belonging and providing timely access to mental health supports are critical steps in developing a thriving intellectual community.
 - Waterloo Engineering should continue to build deeper connections with our Cambridge campus.
 - The accessibility and safety of our facilities should be evaluated and improved upon.
 - Student facing software systems and websites should continue to be improved.
 - The ability to provide feedback for improvement is valued and important; communicating the results of that feedback is equally important.
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Conclusion

The input from this survey will directly shape our priorities for the next 5 years. As we define plans under the strategic pillars of Culture, Graduates, Knowledge and Campus, we continue to be guided by the responses outlined above. If you have further input or questions, please contact engineering.planning@uwaterloo.ca

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