Graduate Attribute Strengths of Biosystems Engineers

Surveys show that the Biosystems Engineering program consistently ranks highest in these graduate attributes...

**Design**
Developing solutions for complex, open-ended engineering problems.

**Team Work**
Working effectively as a member and leader in engineering teams.

**Communication Skills**
Communicating complex engineering concepts.

**Problem Analysis**
Solving complex engineering problems.

Extra-Curricular & Leadership Opportunities

* Council positions to enhance the university experience for Engineering students (UMES) & Biosystems Engineering students (CSBE)
* Hands-on experience finding solutions to third-world housing challenges (S4S)
* Hands-on experience to design & fabricate a ¼ scale tractor (UMATT)
* Organize biomedical events (UMBMES)
* Promote human development in Canada and abroad (EWB)

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Our Commitment

Biosystems Engineering is a small, but growing, Department that is committed to providing an exceptional student experience for each engineering student. Students are an important component of the Biosystems Engineering family. Professors and support staff are dedicated to the teaching mandate of the Department. Studying in a supportive environment helps students prosper and mature, preparing them for a position in your organization.

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Department of Biosystems Engineering

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Why Should I Hire a Biosystems Engineer?

I am glad you asked ... this brochure provides some compelling answers.
Biosystems Engineering

**Biosystems Engineering** emphasizes the application of engineering principles to biological systems (i.e., involving plants, animals, humans and microorganisms). Biosystems engineers help to create new technologies to improve the well-being of humans and animals, and to preserve and enhance natural resources and the environment.

Our program objective is to graduate design-ready engineers prepared for professional practice by providing students with a broad foundation in the application of engineering principles to biological systems. The program is accredited by the Canadian Engineering Accreditation Board.

### Strengths of the Biosystems Engineering Program

Industry expects engineers to have well-developed “professional skills” to complement technical knowledge. We changed our curriculum accordingly.

In our innovative capstone courses, the teaching of engineering communication is integrated with the teaching of the design process. Students work in teams to develop a solution to an open-ended design problem, and then have the opportunity to fabricate a prototype. This “paper to prototype” learning experience does not exist in other programs.

The “graduation project” provides an opportunity for each student to manage an engineering R&D project from start to finish; students learn how to formulate an engineering decision based on experimental data.

Students have flexibility when selecting courses to earn a Specialization in one of five areas: Agricultural, Biomedical, Bioprocessing, Environmental, and Sustainable Building Systems. Students are enthusiastic about their studies when they can choose courses to match their interests. Their enthusiasm is contagious.

We attract engineering students who have a passion for helping people, preserving the environment, or tackling societal problems (such as reducing hunger by improving food production). These are tomorrow's leaders!