

Applied Science 101

Overview

Students with an aptitude for both scientific discovery and engineering design will thrive in this program. This course highlights the applied science specializations at queens, including engineering chemistry, engineering physics, geological engineering, and mathematics engineering. Science 101 will showcase one of Queen's most unique dual degree programs.

Engineering Design Challenge – FitBit Design using Micro:bit

The engineering design process will be introduced to students through a full day, hands-on activity that involves both material construction and computer programming basics. The students will work in groups to design a FitBit using Micro:Bit technology while considering the economic, social, and environmental impacts of their design.



Engineering Physics

Through relativistic and quantum physics, electricity and magnetism, and mathematics, engineering physicists are able to explain the unexplainable. Students will use their knowledge from high school physics to solve an electricity and magnetism design project to produce a frictionless bearing. For more information on Engineering Physics offered at Queen's, go to <https://vimeo.com/28310285>.

Engineering Chemistry – Polymerization

In the field of Engineering Chemistry, fundamental studies of analytical, electrochemical and organic chemistry are be combined with chemical engineering science such as transport phenomena and thermodynamics. Students will explore this combination through the creation of polymers. For more information on Engineering Chemistry offered at Queen's, go to <https://vimeo.com/284148884>.

Geological Engineering -

Geological engineering combines the basics of physics, mechanics and mathematics with geology, geophysics and geochemistry. Students will visit the Kennedy Field Station to explore current water research and local wetlands. Students will also examine physical disasters such as rock slides, earthquakes and tsunamis in the Department of Geological Engineering at Miller Hall. For more information on Geological Engineering at Queen's, go to <https://vimeo.com/28310412>.

