

# SUPPORTING STUDENTS ON THE PATH TO AN ENGINEERING DEGREE


Engineering is an exciting profession that opens many doors for students! Guidance counsellors and teachers play an important role in supporting current female students and encouraging the next generation of women to pursue careers in engineering. Many young women don't go into engineering because they never had a role model to inspire them. Less than 20% of engineering students and only 12% of professional engineers in Ontario are female ... let's change this!

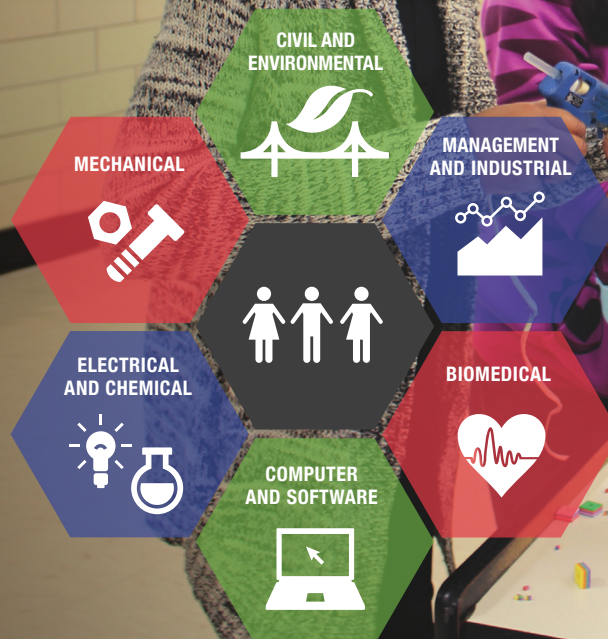
## IS ENGINEERING A GOOD FIT FOR YOUR STUDENT?

Ask a student the following questions in terms of "things you like to do". If the student says 'yes' to most questions, engineering could be a great fit and they should explore this further!

- > Do you like to solve problems?
- > Do you like math and science?
- > Do you like to think of new ways to do things?
- > Do you like puzzles and other mind challenging games?
- > Do you like working with computers?
- > Do you enjoy a challenge?
- > Do you want to make a difference in the world?
- > Do you have an interest in the challenges facing our world?
- > Do you want to help people and improve their lives?
- > Do you wonder how things work?
- > Do you like to work in teams?

## WHY A DEGREE IN ENGINEERING?

Engineering isn't just about cars, bridges or trains. There are so many fields of engineering to choose from. This can be daunting but students should know that any engineering degree is a good foundation to take them anywhere. If they're struggling to decide, ask 'what are you passionate about?'.  




## THE POWER OF PHYSICS

Students pursuing engineering often don't realize that they need to take senior physics. However, Physics SPH4U is required to get into an engineering program at an Ontario university. There are many reasons to take physics! Technology is constantly transforming the world and can be directly traced back to physics research. Ever held an iPod and wondered how so many songs can fit inside such a tiny device? It is important to remember that studying physics has great rewards ... it's an amazing field of science that helps us understand our universe!

## WHAT DOES AN ENGINEER ACTUALLY DO?

Students have a hard time visualizing an engineer or understanding what they actually do, especially compared to well-known careers like doctors, lawyers and chefs. Engineers work together to design and create all the products we use from phones to medical devices. Engineering is involved in every aspect of our lives

## PATH TO AN ENGINEERING DEGREE

### REQUIRED COURSES TO STUDY ENGINEERING IN ONTARIO



#### MATH

Advanced Functions **MHF4U**  
Calculus and Vectors **MCV4U**



#### SCIENCE

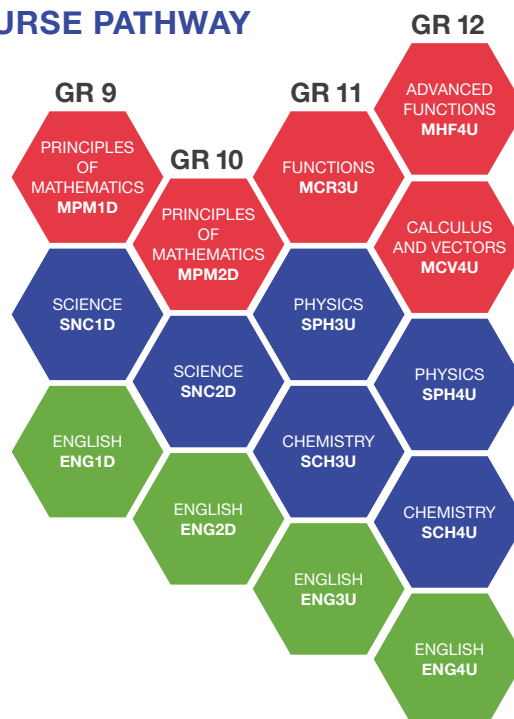
Physics **SPH4U**  
Chemistry **SCH4U**



#### ENGLISH

English **ENG4U**

## SUGGESTED COURSE PATHWAY



## RESOURCES FOR STUDENTS INTERESTED IN ENGINEERING

List of engineering programs in Ontario (and universities/colleges that offer these programs):

[www.onwie.ca/explore-engineering/engineering-programs-in-ontario](http://www.onwie.ca/explore-engineering/engineering-programs-in-ontario).

The best way to see if engineering is a good fit for a student is to connect them with a current engineering student or engineering graduate. Find contacts for any field of engineering:

[www.onwie.ca/explore-engineering/meet-some-engineers](http://www.onwie.ca/explore-engineering/meet-some-engineers).