## Business: Student to Entrepreneur in a Week
**SEEDS 2 | July 26-30**

### Course Description
Build a business plan in 5 days! *Student to Entrepreneur* is designed to engage and empower you with the tools you need to innovate and plan a business. Every student will finish this program by pitching their ideas to their peers and Queen’s Community professionals. Tighten your bootstraps because you’re going to start a business!

### Instructor Biography
Justin is a Philosophy major with a passion for Innovation and Entrepreneurship. While also completing his Master’s of Management Innovation & Entrepreneurship at Queen’s he is also busy with his own business and Juno nominated band.

## First Peoples: Introduction to Canadian Indigenous Studies
**SEEDS 1 | July 19-23**

### Course Description
Through a Sociology and anthropological lens, *First Peoples: an intro to Canadian Indigenous Studies* will explore Canadian First Nation peoples, colonization and modern culture and other relevant issues in Canadian Indigenous studies. Students will learn the general focus of Cultural Anthropology as an academic pursuit and its impact on our society today through the experiences of Indigenous Peoples in Canada.

Who are Canada’s First Nation peoples? What is their history? Explore pre-contact, colonization, modern culture, and other relevant issues through a Sociology and anthropological lens. Using expert lectures, discussions, and activities, students will learn the beyond school curriculum and focus of Cultural Anthropology as an academic pursuit and explore its impact on our society today.

### Instructor Biography
Emilee is currently a Masters of Education student at Queen’s University and a member of the Algonquin First Nation. She specializes in the socio-anthropological study of human health and education with an emphasis on Canadian Indigenous Peoples. She is especially interested in the intersection of traditional and Western medicine for Indigenous children.
**Foundational Anatomy**  
SEEDS 1 or 2 | July 19-23 or July 26-30

**Course Description**  
Learn all about the human body, inside and out! Each day, you will review one of the five major systems of the body: musculoskeletal, cardiovascular, respiratory, nervous, and gastrointestinal. Throughout the week, you will work with online models of specimens, engage with classmates to solve anatomical mysteries, and have access to exclusive video and lecture content developed by highly-regarded anatomists at Queen’s. Most importantly, you will be exposed to a challenging and engaging learning environment in which you will take your first steps in becoming an expert in anatomy!

**Instructor Biography**  
Instructors for this course are graduate students studying and working in the Department of Biomedical Science at Queen’s University. Many of them are currently completing their Master’s degree in Anatomical Science at Queen’s.

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**Intro to Biology: Understanding the World Around Us**  
SEEDS 2 | July 26-30

**Course Description**  
Life all over planet Earth is more connected than you might think! From the plants in your backyard to the mushrooms we eat, to the fish in the Great Lakes, many plants, insects and animals need each other just to survive. In this course, you will see how important it is to understand how species live and interact. We will begin to understand how living and non-living things work together and the threats that face them and their ecosystems. Will you begin your journey to understand the living world around us? Now is your chance!

**Instructor Biography**  
Sarah is currently completing her Master of Science in Freshwater Fisheries Biology. Her research tracks the movements of Lake Whitefish in Lake Ontario. She is passionate about teaching science and loves learning about the cool ways different species live.
Intro to Ontario High School Math
SEEDS 1 | July 19-23

**Course Description**
Join other students with their eyes set on their future achievement in mathematics in Intro to Ontario High School Math! This course is designed for advanced grade 7s and grade 8 students who want a glimpse of the math they will be working on in High School. Students will be learn how to re-arrange equations to isolate and solve for variables, how to graph tables of values and interpret what they and calculate slopes and to write equations of lines. Join Ontario Teacher Candidate Corina as they guide students through some of the most critical elements of high school Mathematics.

**Instructor Biography**
*Corina* is a teacher candidate of the Concurrent Education Program at Queen’s University on track to teach high school Math and Physics. She is super passionate about mathematics and loves to work out and be active. Fun Fact: When she was in high school she competed in the Ontario Summer Games in Badminton! Corina is extremely excited to launch this course, and can’t wait to meet all the students looking to explore what awaits them on their high school math journey!

Mathematics and Physics: Formulation, Analysis, and Modelling
SEEDS 2 | July 26-30

**Course Description**
Join us and explore Mathematics and Physics! Monitor and collect data, hypothesize, theorize, and perform mathematical modelling to describe what happened in experiments. Use analytical techniques and computer modelling to share results, promote discussions, and explore beyond the simulation as you understand the structure of a problem, and then use mathematical tools to prove that a strategy is the optimal solution.

**Instructor Biography**
*Chelsea* is currently a PhD student in the Physics and Engineering Department at Queen’s. She is incredibly passionate about exploration, innovation and imagination in the math classroom.

Our Delicate Democracy: Intro to Political Studies
SEEDS 2 | July 26-30

**Course Description**
What is the Prisoner’s Dilemma? Why do we have a government? Why are certain countries considered a Democracy and not something else? This is NOT your typical civics course. We will dive deeper into the study of political authority and social contract theory. We will consider why it can be difficult to cooperate with one another when there is no fear of punishment. Learn how we can keep our delicate Democracy for the years to come!

**Instructor Biography**
*Jennifer* is completing her PhD in Politics and specializes in Political and Legal Thought. She is also a TA in political studies and has a passion for educating our future generations in the field of politics.
The Science of Planets & Rock: Geology  
SEEDS 1 | July 19-23

Course Description
Want to terraform Mars? Are Earth and Mars really the same? Open your eyes to the science of the earth and other rocky planets in the universe! Explore a different aspect of geology each day, with a mix of expert lectures, hands-on learning, and activities as you make your case for how we might terraform the red planet. Geology connects engineering, mineralogy, petrology (the study of rock formation), paleontology and the science of the cosmos.

Instructor Biography
Gordon is a proud SEEDS Alumni. His enthusiasm for Geology can be seen the moment you meet him. His familiarity with planetary geology will show you all why Geology ROCKS!

Pathology: From DNA to Forensics  
SEEDS 1 or 2 | July 19-23 or July 26-30

Course Description
Do you dream of becoming a Crime Scene Investigator? Want to investigate a mock crime scene? Then this course is for you! You will learn about the human body, diseases, DNA, and genetics through hands-on activities including: a genetics testing lab, dragon genetics lab, blood typing (with simulated blood), and examining plastinated specimens. You will also learn forensics skills such as fingerprinting, and handwriting analysis. Are you ready to solve the case?

Instructor Biography
Dr. Mackenzie Bowman has been coordinating ESU courses since 2010, and holds a PhD in Pathology and Molecular Medicine. She is currently a Senior Scientist in the Clinical and Molecular Hemostasis Research Group at Queen’s University. Instructors for this course are specially selected and supervised by Dr. Bowman.

Virus and Disease: Epidemiology  
SEEDS 1 or 2 | July 19-23 or July 26-30

Course Description
How does disease spread and how do we prevent it? In Virus & Disease, students will learn how to identify, manage, and respond to new contagious diseases. This course will give you the opportunity to learn about the history of outbreaks, work as a team to manage an outbreak, and engage with your peers to protect yourself and your community from disease!

Instructor Biography
Justine is currently enrolled in the second year of the Master of Science Program at Queen’s University. She is a proud SEEDS Alumni and has completed her Sociology degree at Queen’s University. She is also the current Queen’s University Society of Graduate Professionals President.
Writing Stories You Want to Read  
SEEDS 1 | July 19-23

Course Description
Do you aspire to write original stories that take readers to exciting new worlds or help them discover valuable life lessons? Do you dream of writing the next Hunger Games, Percy Jackson, or Harry Potter? This course shows you the secrets to creating great stories, including how to find and develop story ideas, create memorable characters, build an emotional roller coaster of a plot, design a story world, and write your adventure with flair.

Instructor Biography
Glen has been a freelance writer since 1999 and has been instructing with ESU since 2013. He is the author of the award-winning middle-grade novel, Dancing on the Inside, and currently teaches creative writing at St. Lawrence College in Kingston, Ontario.