### 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.

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### Foundational Anatomy
#### SEEDS 1 | July 19-23

**Course Description**
Learn all about the human body, inside and out! Each day, you will review one 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.
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.

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.
Pathology: From DNA to Forensics  
SEEDS 1 | July 19-23

**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.

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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.