



Queen's
UNIVERSITY

2017

Summer Enrichment Experience @ Queen's (SEEQ)

Course Descriptions & Instructor Biographies

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(Alphabetical by grade range)
*All courses subject to change

OPEN COURSES | GRADE 8 -12

Creative Writing: Journey of Imagination

(Literature, Creative Writing)

Course Description

Would you like 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 Harry Potter, Frozen, The Hunger Games, Star Wars, or perhaps Percy Jackson? This course will help you master everything you need to know, including how to develop an original story idea, create memorable characters, construct an emotional roller-coaster of a plot, build your story world, and write your adventure with flair.

Instructor Biography

Glen C. Strathy has been a freelance writer since 1999. He is the author of the award-winning middle-grade novel, *Dancing on the Inside* and co-author of two nonfiction books, including the bestselling business book, *The Coming Economic Collapse* (2006). He teaches creative writing at St. Lawrence College and his [website](#) offers tips and advice to aspiring authors. He earned a Master of Arts in English from Western University and a Bachelor of Education from Queen's University (Artist in Community Education Program) and is a member of the Professional Writers Association of Canada (PWAC) and the Society of Children's Book Writers and Illustrators (SCBWI).

用中文说 (Say it in Chinese)!

(Languages, Chinese)

Course Description

Do you know one in every five people in the world speaks Chinese? Can you pronounce a single syllable "ma" in four distinguished tones, which in Mandarin Chinese can mean "mother", "numb", "horse", "to scold" and even more meanings? Do you have interest in "drawing" Chinese characters like pictures? Do you want to try using chopsticks for dinner like Chinese people? In this course, we will learn to speak the language, write the characters and will get many chances to complete real-life tasks with native speakers through conversations and hands-on activities. This course is designed for grade 7-8 students.

Instructor Biography

Yaqi Hao is an M.Ed. candidate in the [Faculty of Education at Queen's University](#). She specializes in English as a foreign language (EFL)/Chinese as a second language (CSL) pedagogy, second language acquisition and learning strategies and curriculum study. Yaqi has earned degrees from Beijing Normal University (Bachelor of Arts with Honor in English Language and Literature) and Peking University (Master of Arts in Chinese Linguistics). Nurturing students' language interest and developing their learning strategies and cultural awareness sit at the heart of Yaqi's language classroom instruction, which she has refined over her more than ten years of language teaching experience at elementary, secondary, and post-secondary levels in both China and the United States.

You Can't Be smART without ART!

(Visual Art, Fine Art)

Course Description

Find your inner artistic genius with this crash course in fine art! Over three days, you will be immersed in the world of artistic expression, learning both theory and skills from the minds and hands of artists and technicians. Inside the studios of the Queen's University Fine Art program, you will have the opportunity to develop your own masterpieces in printmaking, acrylic painting, and modern sculpture. To get your creative juices flowing, you will also visit two art galleries on the Queen's campus to find inspiration from the works of students, local artists, and even famous painters like Rembrandt. It's time to create more than doodles in your notebook! Who knows, maybe you'll be the next Michelangelo, Picasso, or Warhol!

Instructor Biography

Ryan Laidman is an Ontario artist hailing from Hamilton and later Prince Edward County. He holds an Honours Bachelor of Fine Art from the University of Guelph for which he specialized in printmaking and sculpture. Following the completion of his degree, Ryan was awarded the 2009 Emerging Printmaker Scholarship at [Centre 3 Print and Media Arts Centre](#) (formerly the Hamilton Print Studio) where he worked as a technician and volunteer. Today, he works as the studio technician for [the Queen's University Fine Art](#) program where he guides the work of aspiring artists in both print and sculpture mediums. [Ryan's own work](#) explores a number of themes, methods, and style but currently focuses on landscape, abstraction, and experimentation with colour, layering, and the repurposing of discarded works.

GRADE 8-9 COURSES

Lego Robotics to the Rescue: Using Lego Mindstorms to Solve Engineering Challenges

(Engineering)

Course Description

**This is an introductory course designed for students who have had little or no exposure to Lego Robotics.* A fun introduction to students who are interested in learning about coding, robotics, and Electrical and Computer Engineering. We will be applying the engineering design process and the Lego Mindstorms software to create a solution to various problems. The course will also briefly discuss other disciplines of Engineering offered by Queen's University. The students will have the opportunity to work in groups like professional engineers and apply the new knowledge and skills obtained to design and build a prototype for each challenge. This course will also include various tours through the Electrical and Computer design spaces, research labs, and an opportunity to talk with current Engineering students about their studies.

Instructor Biography

Lego Robotics is supervised by **Scott Compeau**, the Outreach Coordinator for Connections: [Queen's Faculty of Engineering and Applied Science Educational Outreach Program](#). Scott has a Master's degree specializing in Engineering Education with a thesis on high school students' perception of engineering.

Instructors for this course will be current engineering students, specially selected and supervised by Scott Compeau. Their experience in engineering and working with students will create an engaging environment where students will be encouraged to channel their inner engineer.

Mysteries of the Human Brain: Behavioural Science and Psychology

(Neuroscience, Psychology)

Course Description

Have you ever wondered what part of the brain makes you happy? Where your memories are stored? Or the science behind dreaming? We will explore these and many other fascinating questions on our scientific journey through the human brain. You will learn about the different parts of the brain and how each part contributes to how we function and behave as human beings. The human brain will come to life through engaging tactile activities, interactive crafts, challenging puzzles, fun games, and movies! If your brain is ready to explode with excitement, take this course to learn why!

Instructor Biography

Chloe is a PhD candidate in the Centre for Neuroscience studies at Queen's University. She received a BScH in Psychology in 2012 and an MSc in Psychology in 2014. She is now completing her doctoral research in systems neuroscience, investigating topics related to synaptic activity, synaptic plasticity, and neuromodulation. Chloe's research has earned her several provincial and national scholarships, including a doctoral postgraduate scholarship from the Natural Sciences and Engineering Research Council of Canada (2016-2018). Chloe has 5 years experience as a teaching assistant at Queen's, working in the Departments of Biomedical and Molecular Sciences, Biology, and Psychology, and she has served as an instructor for numerous science outreach programs for students of all ages.

Pathology: From DNA to Forensics

(Biology, Pathology)

Course Description

Pathology is the study of diseases and the structural and functional changes they cause. You will learn about the human body, diseases, DNA and genetics. Hands-on activities will include a genetics tasting lab, dragon genetics lab, blood typing (with simulated blood), examining plastinated specimens, and a visit to the Museum of Health Care. You will also learn forensics skills such as fingerprinting, and handwriting analysis and get the chance to be a Crime Scene Investigator and solve your own mock crime scene.

**Specific Anatomy release forms must be signed and submitted before students arrive at ESU*

Instructor Biography

Dr. Mackenzie Bowman is in her 7th year as the course coordinator, and has been an instructor since 2009. Dr. Bowman holds her PhD in Pathology and Molecular Medicine and is currently a Senior Scientist in the [Clinical and Molecular Hemostasis Research Group](#) at Queen's University. Instructors for this course are graduate students from the Department of Pathology and Molecular Medicine and are specially selected and supervised by Dr. Bowman:

Alison Michels, MD/PhD Candidate

Soundarya Selvam, PhD Candidate

Jesse Lai, PhD Candidate

Tori Candy, MSc Candidate

Catherine Crawford-Brown, MSc Candidate

Jesse Leblanc, MSc Candidate

Programming Puzzles: Coding and Computer Wizardry

(Computer Science, Programming)

Course Description

Become a computer whiz by learning how a computer "thinks" and how to think like a computer! You will explore important concepts in computer science and use them to solve challenging problems, build useful programs, create entertaining animations, and develop interactive games to play with your classmates and share with your friends. Through hands-on activities that put the power of computers at your fingertips, you will discover how a computer encodes, organizes, and remembers information and how your commands are processed and transformed into what we see on a screen. Once you understand how a computer works, you can make it work for you!

Instructor Biography

Daisy Barrette is an upper year student who is completing her Honours Bachelor of Computing degree from the Queen's University School of Computing. Daisy's work in computer science draws upon her love of film and media, examining the intersection between art and technology and experimenting with code and physical computing. She is well versed in the instruction of computer programming, having helped to develop content for and teach the [Google igniteCS @ Queen's University](#) program – a coding camp for high school students. Daisy also lends her knowledge and

expertise to a number of other initiatives and groups, including [Sudo](#), the Queen’s chapter of [Robogals](#), and Queen’s University Women in the School of Computing.

GRADE 10-12 COURSES

Historians vs. Hollywood

(History, Media History)

Course Description

Everyone loves going to the movies. Historians too! Movies are one of the most powerful ways in which we imagine the past. But do movies make good history? Yes or no. The best historical movies are engaging and compelling. They blend attention to historical detail with imaginative recreation. They investigate real historical questions and they open up rich terrain for discussion. In this course, students will watch, analyze, and question the historical narratives Hollywood has splashed on the silver screen. Together, we will grapple with the importance of historical accuracy, the tension between fact and fiction, and – in the process – gain a better understand of the very nature of history. Students will also be challenged to come up with their own treatment and pitch for a proposed fil about a real historical figure or event. If you love the movies or history or both, this course is for you!

Instructor Biography

[Michael Pitblado](#) is a doctoral candidate in the Faculty of Education at Queen’s University. He specializes in curriculum theory, history teaching, and Holocaust and genocide education. Michael has earned degrees from Queen’s (Bachelor of Arts with Honours and Bachelor of Education) and the University of New Brunswick (Master of Arts). He also has several years of teaching experience at both the secondary and post-secondary levels. Developing historical thinking skills is at the heart of Michael’s approach to learning about the past. His students gain a deep understanding of historical events and processes through active engagement with historical texts.

Keep Calm and Rock On: Engineering our Natural Earth

(Geology, Engineering)

Course Description

Calling all earth, science, engineering, construction, geology, and nature lovers – or those who are interested and just want to know more! This course will focus on earth science and geological engineering in the modern world, where building stable structures, harnessing the world's water power, and mining for valuable commodities intersects with climate change, futuristic technology, and community stakeholder needs. Learn about everything from how the world was formed to dinosaur extinctions, try out your hand as a construction manager, and explore the field with a variety of investigation and testing tools! Students interested in engineering will be able to speak with graduate students, professors, and professionals in the industry about a wide variety of geological and civil related projects. Come prepared to learn about our natural earth and how we build on it; come prepared to question what you think you know about engineering; and of course, come prepared to get your hands a little dirty.

Instructor Biography

Samantha Taylor studied at Queen's University where she earned her Bachelors of Applied Science degree in [Geological Engineering](#). She currently works for [Hatch Ltd.](#) in their Project Delivery Group as a part of the geotechnical team. Her interests lie in rock mechanics, the application of technology in geological engineering, construction practices, dam safety, women in engineering, tunnelling, and any and all field work! Samantha is also an avid learner and teacher, and has been part of the staff team for [SHAD](#) Queen's, a summer enrichment program for high-potential high school students, for three years. Her most recent position was as Engineering Faculty in 2016, where she delivered lectures, workshops, and coordinated field trips to expose the students to the profession of engineering and geology. Outside of engineering, Sam loves to travel, wishes she was in a band, and hikes every mountain she lays eyes on – singing the whole way up.

Let's Get Down to Business

(Business, Entrepreneurship)

Course Description

What is 'Business' exactly? In five days, we will explore the answer to this question. Using both theory and examples from real organizations, you will be introduced to some of the most important topics in Business: Strategy, Leadership, Accounting, Marketing, and Entrepreneurship. To bring the concepts to life, you will participate in simulations, team exercises, and have the chance to create and 'pitch' your own business idea. If your dream job includes a top floor corner office, or you want to be your own boss someday, this is the course for you!

Instructor Biography

Ian Wong is an entrepreneur in the creative arts industry. He works as a musician [composing piano pieces](#) and music for films and performs regularly in the community. His educational background includes a Bachelor of Commerce and a Master of Science in Management from the Smith School of Business at Queen's University. He also holds a Social Work degree from the University of Victoria, BC. For over ten years, he has delivered lectures on business plans, teamwork, and leadership at SHAD (an enrichment program for youth), and he acted as the Co-Director of the program at Queen's in 2010. His diverse experience includes working as a University Researcher, Employment Consultant, and Projects Officer.

Pathology and Molecular Medicine

(Biomedical and Molecular Science)

Course Description

Pathology is the study of diseases and the structural and functional changes they cause. This course provides students with a thorough introduction to the field of Pathology & Molecular Medicine. Students will learn about genetics, cancer, immunology, pharmacology, toxicology and so much more. Students will also have opportunities to solve their own diagnostic cases, perform simulated blood typing and learn more about education and career options. Tours of the [Anatomy Museum and Laboratory](#) and the [Patient Simulation Lab](#) will extend learning and the student experience. **Specific Anatomy release forms must be signed before students arrive at ESU.*

Instructor Biography

Dr. Mackenzie Bowman is in her 7th year as the course coordinator, and has been an instructor since 2009. Dr. Bowman holds her PhD in Pathology and Molecular Medicine and is currently a Senior Scientist in the [Clinical and Molecular Hemostasis Research Group](#) at Queen's University. Instructors for this course are graduate students from the Department of Pathology and Molecular Medicine and are specially selected and supervised by Dr. Bowman:

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Soundarya Selvam, PhD Candidate

Jesse Lai, PhD Candidate

Tori Candy, MSc Candidate

Catherine Crawford-Brown, MSc Candidate

Jesse Leblanc, MSc Candidate

Super Nurses Bootcamp

(Nursing Science)

Course Description

This course offers insights into the systems of the body and how nurses assess them in real-world healthcare settings. Topics will include common health conditions such as diabetes, asthma, and hypertension, as well as the importance of the nursing role. Students will have the opportunity to hone some of their practical skills and gain valuable experience in identifying signs and symptoms of potential disease. Fieldtrips to the [Patient Simulation Lab](#) and the [Clinical Education Centre](#) will provide students with the opportunity to apply skills learned in class. Students will also learn about the nursing profession and the variety of pathways available in this career stream including critical care, teaching, research, travel, and much more. This course is supervised by Cheryl Pulling, RN, BNSc, MScN.

Instructor Biography

Ruixi Sheng is an upper year Nursing Science student with extensive leadership and mentoring experience. She is currently the Vice President of Operations for the [Nursing Science Society](#), a contributor to the Nursing Science Society [Blog](#). In addition to her involvement with the Nursing Science Society, Ruixi has worked as a frosh orientation leader, a mentor for Queen's University Learning Strategies, and a Math and English tutor for [Kumon Learning](#). She also has previous ESU experience as a Student Supervisor and First Aid Coordinator demonstrating her passion for supporting the learning of students of all ages.

Bryn Routledge is an upper year [Nursing Science](#) student with extensive leadership experience and a passion for student leadership and growth. As part of the [Nursing Science Society](#), Bryn has worked as a 'Head Cape, Coordinator, and is currently Orientation Roundtable Logistics Director for Nursing Orientation Week. Bryn has also designed and facilitated leadership workshops for students aged 14- 19, as well as planned and implemented a two-hour long Study Buddies session for an Anatomy/Physiology Nursing course.