



Science 101

**Yearbook
2022**

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About Science 101

Science 101 is a three-month, non-credit, barrier-free program offered to residents of Vancouver's Downtown Eastside and other inner-city communities. The program introduces students to a wide variety of scientific subjects to encourage them to develop an interest in science, and to build an appreciation for the physical world. Science 101 aims to make science engaging, relevant, and fun.

Students attend lectures taught by University of British Columbia faculty and graduate students who donate their time to facilitate interactive classes on topics they are passionate about. Volunteers are present during lectures to assist students with understanding lecture content and answering questions.

Students are also given the opportunity to attend tutorial sessions at the UBC Learning Exchange, as well as fieldtrips to local science attractions. A graduation ceremony is held at the end of the program to celebrate the achievement of the students who have completed the program.

Science 101 is sponsored by the University of British Columbia Faculty of Science Dean's Office and private donations.



THE UNIVERSITY OF BRITISH COLUMBIA
Faculty of Science

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August 4, 2022

Dear Graduates:

On behalf of the Faculty of Science, congratulations on your graduation from Science 101!

When looking back on what you have learnt through the Science 101 program, we hope you'll find you now have a better understanding of science and have gained new perspectives on the world around you. The knowledge and insight you have acquired provides you with a foundation to more fully understand and approach scientific topics you may encounter in the future, either in your everyday life or academically. And, thank you for bringing your own knowledge, experience, and perspectives to this learning experience, for everyone's benefit.

We hope Science 101 has provided you with a solid introduction to many scientific topics and has ignited your passion to continue learning about science. You are now a member of the Science 101 Alumni group, and we invite you to join Science 101 Alumni Programming which will take place at the UBC Learning Exchange and the Point Grey campus. Past events have included science tutorials and skill-building workshops.

Congratulations on your achievement!

Sincerely yours,

Sara Harris
Senior Associate Dean, Faculty of Science

Jackie Stewart
Associate Dean, Faculty of Science

A Message from Brianne

Congratulations Science 101 2022 students!

This was a great summer full of learning and fun. I appreciate all of your patience as we worked out running this program in person again after two *long* years! I really enjoyed being able to spend some time with each of you and learning about you and your stories.

Thank you to all of the volunteers that helped us facilitate this program. You made it run more smoothly and made it more fun!!

Thank you Gilles for your help and support, despite never remembering my name!

Thank you to Nancy and all the other behind-the-scenes players that allow Science 101 to happen year after year. I am so thankful to be a part of this wonderful program that truly has an impact on everyone involved.

It was such a pleasure working alongside all of you. I'm proud of all of our hard work. Thank you for your dedication and joy!

Best wishes to everyone!

Brianne



A Message from Eric

It has been a true pleasure meeting you all and learning together this summer. You can be proud of the courage, dedication and curiosity you've shown since joining Science101. I thoroughly enjoyed the enthusiasm you brought to the conversations with presenters and their material - your shared perspectives enriched the learning environment and made each lesson much more memorable. Thank you also for sharing your stories with me - for simply enlightening me to a wider scope of the human experience. I've learned a lot from our time together and I hope you have learned much from Science101, perhaps revealed new doors and made connections extending beyond the classroom.

Thank you Gilles for your engaged and supportive mentorship. Your community-oriented nature is never in doubt and you brought that great example to all of us each week. I always looked forward to our conversations - thanks once more for the good company.

Thank you also to the team of volunteers: Arya, Celine, Erin, Matt, Niki, and Shayda. Your time and energy are much appreciated - thank you for all that you contributed to the program!

A big thank you to all of the lecturers, tutorial and field trip leaders for sharing your time and passions. Your teachings are what makes Science101 such a unique learning experience.

And of course thanks to Brianne, Jessica, and Lauren for welcoming me to the coordinator team. I'm really glad I had the opportunity to work with you all. Thank you kindly for trusting and supporting me in this role - it truly has meant a lot!

Lastly, thank you Nancy Cook, Dr. Sarah Harris and the rest of the folks that support Science 101 behind the scenes. This program would not exist without you and I am sincerely grateful.

I'm delighted to have joined the Science101 team this first year back in person - struggles and all. It has been wonderful connecting with everyone involved.

Wishing you all the best on the road ahead,

Eric



A Message from Jessica



Going into my first year as coordinator of the in-person program was very daunting, but I was blown away with just how amazing the experience was. My biggest congratulations goes to the students and staff who showed up every week and made every session a unique experience of learning, teaching, and sharing. I hope every one of us are leaving this experience with a heightened passion for science and learning. I know I definitely am. Thank you for a great summer!

I would like to thank and congratulate all the students who stuck with us to the end. It has been such a pleasure getting to know you all and to learn from you. I would like to thank the volunteers who supported us and enhanced the program with their keen interest in science and enthusiasm. To my fellow coordinators, Brianne, Eric, and Lauren, I want to recognize how you stepped up, worked hard, and helped put together this amazing summer program. None of us had much experience, but it all came together in the end!! Thank you to Nancy Cook, Dr. Sara Harris, and the department of Science for all you do behind the scenes, without Nancy's help this program wouldn't be possible.

Finally, a special thanks to our mentor Gilles for so enthusiastically joining us this summer even with the very short notice. You stepped up, took on more than your role, and really made sure that we were on track. Not only were you a mentor to the new students, but you were a mentor to all of us new coordinators. You were definitely such an appreciated part of this year's program.

Good luck on all your future scientific pursuits!!

Jessica

A Message from Lauren

Congratulations to the 2022 Science 101 Graduates!

Thank you all for a wonderful semester, it has been a pleasure to be a part of such a curious, open minded and kind group. I was impressed every single lecture by your enthusiasm, high-caliber questions, and the support that you showed one another. Furthermore, seeing your curiosity being used to approach the final project with such welcoming arms was truly a pleasure and my hope is that you recognize what a big accomplishment you are celebrating today – congratulations!

I feel fortunate to have seen each and every one of you grow as a scientist this summer and hope that you will continue to use what you learned in Science 101 going forward. Thank you for letting me learn alongside you this summer and for making this program a success!

The Science 101 community wouldn't be complete without thanking a few other people! Thank you Gilles – our program mentor – for demonstrating kindness to everybody in the program and helping facilitate a supportive atmosphere for learning. Thank you to the volunteers – Erin, Niki, Shayda, Matt, Celine, and Arya – for using your valuable time to make this program a success. The effort you put into helping the program run smoothly, and your willingness to go above and beyond for the Science 101 community is incredibly appreciated! To my fellow coordinators – Eric, Jessica, and Brianne – it was a pleasure to learn and work alongside you this summer. A special thank you to Nancy for your guidance and dedication to making this program a success. And finally, thank you to Kate, Dr. Sarah Harris, and the rest of the staff at the Faculty of Science Dean's Office for their support this semester. The opportunity to participate in this incredible program is one I'll never forget.

Congratulations again to the 2022 graduating class and wishing everybody the best in the future.

Keep in touch,
Lauren



What we covered this summer

May 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	Orientation Day Irving Barber Learning Centre Room 182 3:30-5:30 p.m.	Lecture: Dr. David Ng "Scientific Literacy" Michael Smith Building 6:00-8:30 p.m.	No Tutorial	Lecture: Dr. Suzie Lavalee "Forestry" IBLC Room 182 6:00-8:30 p.m.	13	14
15	16	Lecture: Dr. Shona Ellis "Botany" IBLC Room 182 6:00-8:30 p.m.	Note Taking UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Pacific Museum of Earth Fieldtrip 3PM Lecture: Dr. Johan Gilchrist "Volcanic eruptions: What they are and how we study them" IBLC Room 182 6:00-8:30 p.m.	UBC Botanical Garden Field Trip 2: 30pm	21
22	23	Lecture: Dr. Dave Oliver "Microbiology" IBLC Room 182 6:00-8:30 p.m.	How to Read a Scientific Paper UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Lecture: Dr. Sara Harris "Environment" IBLC Room 182 6:00-8:30 p.m.	27	28
29	30	Lecture: Dr. Dave Oliver "Lab Microbiology" BIOL 3125 6:00-8:30 p.m.	31	1	2	3
						4

What we covered this summer

June 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Goal Setting UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	2 Lecture: Andrew Sharon "Immune System" IBLC Room 182 6:00-8:30 p.m.	3	4
5	6	7 Lecture: Dr. Julie Robillard "Neurology" IBLC Room 182 6:00-8:30 p.m.	8 Critical Thinking UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	9	10 Beaty Biodiversity Museum Fieldtrip 12:45pm - 1:45pm	11
12	13	14 Lecture: Library Tutorial with Ursula Ellis & Helen Brown Woodward Library 2198 Health Sciences Mall 6:00-8:30 p.m.	15 How to Apply For a Bursary UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	16 Koerner Library + Eric's talk	17	18
19	20	21 Lecture: Computer Science with Kattie, Preeti, & Devyani SPIN Lab 2358 Engineering Road 6:00-8:30 p.m.	22 Data and Misinformation UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	23 Lecture: Dr. Mona Kwong "Vaccines & Drugs" BIOL 3125 6:00-8:30 p.m. Final project proposal due	24 Grouse Mountain Fieldtrip 8:30 AM	25
26	27 Midterm Break	28 Midterm Break	29 Midterm Break	30 Midterm Break	Midterm Break	

What we covered this summer

July & August 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	UBC Farm Fieldtrip 3-4 PM Lecture: Dr. Jackie Stewart "Science of Learning" IBLC Room 182 6:00-8:30 p.m.	Note-taking and organizing ideas UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Lecture: Dr. Mona Kwong "Vaccines, Drugs, & Immunology" BIOL 3125 6:00-8:30 p.m.	8	9
10	11	Lecture: Brett Gilley "Risk/Risk Perception" IBLC Room 182 6:00-8:30 p.m.	Work on final projects UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Lecture: Rachel Wilson "Ecology" IBLC Room 182 6:00-8:30 p.m.	15	16
17	18	Lecture: Dr. Hadi Dowlatabadi "TBD" IBLC Room 182 6:00-8:30 p.m.	Work on final projects UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Lecture: Peter Raven "Fish" IBLC Room 182 6:00-8:30 p.m.	22	Vancouver Aquarium Field Trip 10:00am
24	25	Lecture: Dr. Mark Halpern "Space" IBLC Room 182 6:00-8:30 p.m.	Work on final projects UBC Learning Exchange Multipurpose room 612 Main Street 3:00-4:00 p.m.	Lecture: Evelyn Sun "Genetics" IBLC Room 182 6:00-8:30 p.m.	29	30

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	Lecture: Dr. Balsher Sidhu "Sustainable food choices" IBLC Room 182 6:00-8:30 p.m.	Working on Final Projects IBL 361 "Oliver room" 2:30-5:30 p.m.	Graduation Ceremony & Final Project Display	5	6

Lectures

Public Understanding of Science

Dr. Ng presented an introduction to scientific thinking and the scientific method. Dr. Ng uses the example questions “Are unicorns real?” and “What if you saw a unicorn?” to illustrate the process of critical thinking, and how scientists apply current knowledge and theory to understand the world around them. Dr. Ng also led the class through extracting their own DNA from cheek cells!



Dave Ng, Ph.D

Landscape, livelihoods and conservation in India

Dr. Suzie Lavallee gave a talk about forests, biodiversity and conservation in India. She presented three case studies in India, the Rajaji National Park, Panna Tiger Reserve and Periyar Tiger Reserve. During these case studies we learned about land-sharing tactics between humans and animals as well as different reserve types and reserve design.



Suzie Lavallee, Ph.D

Moss is Boss

Shona Ellis' lecture described Bryophytes which includes mosses, hornworts and liverworts. She discussed the evolutionary relationships between these non-vascular plants and other plants as well as comparing bryophyte life cycles to human life cycles. Shona also brought along moss samples and little magnifying glasses for each student to inspect the tiny structures present in each. The lecture finished with an overview of bogs and the rich diversity that is present in them and the characteristics that make them so unique.



Shona Ellis, M.Sc.

Lectures



Johan Gilchrist, Ph.D

Volcanic eruptions: What they are and how we study them

Dr. Johan Gilchrist provided an overview of volcanoes and the study of volcanology. He described volcano structures and types of volcanoes that are present around the world including Vancouver. Dr. Gilchrist also led an activity on comparing the viscosity of different magma types. He also discussed some famous volcanic eruptions such as Hunga Tonga and Mt. St. Helens.

Microbiology I

Dr. Dave Oliver gave an overview of the vast topic of microbiology and emphasized the incredibly small scale of microorganisms compared to things like human cells. There was also a discussion on the benefits of microbes like production of many food and drink products as well as production of antibiotics. We learned that the number of bacterial cells in and on the human body actually outnumbers human cells. Finally, we used nutrient agar and swabs to plate a small proportion of microbes present on common surfaces and on our bodies.



Dave Oliver, Ph.D

Climate Change and Climate Negotiations

Dr. Sara Harris started the lecture with an overview of the increasing temperature and carbon dioxide concentration globally since the 1970s. Sara then led a group activity where teams were tasked with representing different countries and they had to work together to present initiatives to “bend the curve” of global temperature increases. Working together we were able to successfully decrease global temperature increases within the target range using a reduction in carbon emissions, reducing deforestation and increasing forestation efforts!



Sara Harris, Ph.D

Lectures



Dave Oliver, Ph.D

Microbiology II

This class took us to the lab where we were able to inspect the bacteria grown from our swabs from Dr. Oliver's first lecture. To learn more about the bacteria present on the plates, Dave taught us how to conduct a Gram stain which differentiates bacteria into two main categories which can be useful clinically for the treatment of bacterial infections. Once the cells were stained we used microscopy to visualize the cells and determine its Gram stain result.



Andrew Sharon, Ph. D Candidate

The Immune System

Andrew guided the class through the complicated world of our immune system. He talked about his area of expertise, Norovirus and asymptomatic infection. We also discussed the different components of the immune system using analogies like comparing our bodies to a castle with the walls, sentries and reinforcements required to protect the castle. Andrew also discussed the dangers of immunity and presented examples of autoimmune disorders like rheumatoid arthritis and multiple sclerosis and treatments.



Julie Robillard, Ph.D

The Brain and the Science of Remembering

Dr. Julie Robillard gave an overview of Neurology, the study of the brain and why the field is so important. To demonstrate Julie gave examples of famous cases through history like the story of Phineas Gage who had a railroad spike pass through his brain and lived. These famous cases are how we've been able to learn so much about the brain and its areas of function like Broca's area. Today, neuroscientists study the brain using anatomy, physiology and behavioural neuroscience. Julie also talked about the factors that decrease and increase our brain health and memory (remember to exercise!!).

Lectures



Leah Edelstein-Keshet, Ph.D

How Many Blocks in the Pyramid of Giza?

Dr. Leah Keshet tasked the Science 101 group with using math and logic to determine the number of blocks used to create the Pyramid of Giza. Leah also taught the class that mathematicians love to simplify and cancel terms while using notation and they hate repetition (who doesn't!). She also taught the class how some mathematical formulas could be determined with some clever geometric tricks and we looked at some different types of pyramid structures.

UBC Library Seminar

Ursula and Aubrey from the Woodward Library gave an overview of the resources available at the Woodward Library and how to utilize them! They also touched on finding resources about a specific topic using the library. They finished up with important information on how to cite and evaluate resources and where to get help with the library.



Aubrey Geyer



Ursula Ellis, MLIS



Eric Press, Ph. D Candidate

Neuroethology

Eric taught the class about his research with birds and how their brains use optic flow to guide flight. We learned how electrophysiology lets us hear the brain's activity and how motion capture technology and immersive virtual reality can be used to understand animal behaviour under altered visual conditions.

Lectures

Haptic and Sensory Perception

Preeti and Devyani led an engaging lecture focusing on the study of haptics or the field of studying and understanding information through touch. They discussed the different types of receptors present in the body that we use to process and understand touch. They used sensory activities to illustrate concepts like the relative sensitivities of different areas of the body and how this relates to the idea of the homunculus. Finally, we were given a hands-on tour of the Sensory Perception and Interaction (SPIN) Laboratory where we got to look at and interact with haptic devices.



Preeti Vyas, Ph. D Student



Devyani McLaren

Pharmaceuticals

Mona led structured discussions about pharmaceuticals with topics including drug dynamics, drug policy and molecular affinity. She also led students on an activity to make their own ice cream which was the perfect end to a summer lecture.



Mona Kwong, PharmD, MSc

Science of Learning

Jackie Stewart used her expertise to teach the class about learning! She used previous studies on things like pattern recognition and chess to explain the differences between experts and non-experts. Jackie also explained metacognition or knowing about knowing and why some professors or experts in a field struggle to explain a concept to new learners. We also learned about some of the more effective ways to learn and that learning styles are an outdated concept!



Jackie Stewart, Ph. D

Lectures

Risk and Perception of Risk

Brett gave an overview of various types of natural disasters including, volcanic eruptions, tornadoes and earthquakes with the goal of explaining some types of risk that humans may encounter or be afraid of encountering. Brett described the difference between risk and a hazard and explained that humans are not very good at perceiving risks and the probability of natural disasters (or other bad things from) occurring. Finally, the class discussed the risk of death in various scenarios and compared their responses.



Brett Gilley, Ph.D

Climate Change and Plants

Dr. Rachel Wilson gave some of her reasons for wanting to study plants including how cool plants are, that you can experimentally manipulate them and the perks of getting to do fieldwork in the beautiful mountains. Unfortunately, plants are being greatly affected by climate change and this will have wide-sweeping effects. She finished by talking about some papers that she was involved in and a study that measured plant species present in an area that was surveyed back in 1983 and again more recently to determine the changes in community composition.



Rachel Wilson, Ph. D

Uncertainty, Risk & Decision-making

Dr. Dowlatabadi gave a fascinating talk about the many types of uncertainty and how it permeates all aspects of our life. He talked about how little we know about the future and used quotes from the past that wrongly predicted how life would be in the future ("Who the hell wants to hear actors talk?" -Harry M. Warner, Warner Brothers, 1927). He also addressed that gathering more information can help make as informed decisions as possible.



Hadi Dowlatabadi, Ph.D

Lectures

Biodiversity of Fish



Peter Raven, Ph.D

Dr. Peter Raven displayed his wealth of knowledge about all types of fish! We learned about different types of sharks, rays, jawed and jawless fish. Peter shared lots of fun facts about some of the more unique and interesting fish out there especially the deep sea dwellers. Some interesting creatures included the Ocean Sunfish that is mostly head, doesn't swim and just floats through the water collecting plankton and being cleaned by other fish. We also learned about the Snakehead fish that can survive out of water for 4 days

The History of the Universe

Dr. Mark Halpern is a cosmologist that studies how the universe came to be. He asked questions such as how do we measure the distance between the Earth and the Sun and used an apple to evoke thoughts of Isaac Newton. We were also given some background to some of the recently released JWST images! Mark also talked about the scale and fullness of the universe and we pondered the probability of us being alone.



Mark Halpern, Ph. D

Genetics of Blood

Dr. Evelyn Sun talked about the history of genetics from Gregor Mendel until modern day CRISPR-cas9 gene editing technology. She also gave some background about how some of our characteristics like blood types are determined. Evelyn also gave an overview of what blood types actually mean and we finished up with an activity on how blood types are determined using antibodies and monitoring agglutination



Evelyn Sun, Ph.D

Lectures and Tutorial



Balsheer Sidhu, Ph.D

Climate change: A global problem that needs global solutions

Dr. Sidhu was our final lecturer of the summer! We got to talk about the global issue of climate change and it's symptoms and effects.

Thank you to our amazing lecturers - we would be unable to run this program without you.

Thank you for donating your time and experience to Science101 making it such a fun and intellectually-stimulating experience for all those involved.

Tutorial Leaders



Rachel Lobay, M.Sc.



Chris Oatman



Elena Zaikova

Thank you to our tutorial leaders!

Tutorial leaders run hour-long workshops at the UBC Learning Exchange. These tutorials focus on skill-building with topics such as data and misinformation, pursuing post-secondary education and and goal-setting.

Science 101 2022 Students

Thank you to our wonderful & curious students!

We appreciate your enthusiasm and are always impressed by your determination and thoughtfulness. Thank you for your hard work, positive attitudes, and open minds.



The students of Science 101 are the reason we all participate and enjoy this program! You are the heart of this program, and a source of inspiration for everyone involved. Every year 20 – 25 students are accepted into Science 101. This year we were so lucky to have a smaller group of students which meant more time to connect and chat with each other

As part of this program, Science 101 students complete a final project with the goal of exploring a scientific topic in further detail. Students then have the opportunity to display their projects at the graduation ceremony and each year the projects exceed expectations!

Science 101 2022 Students & Final Projects



Casey Boyd

Knowledge & Intelligence

Casey completed her project on the concept of knowledge and intelligence. She wanted to research what, when and how knowledge works as well as looking at more abstract concepts and ideas surrounding knowledge. Casey sought to answer questions such as "is knowledge innate?"

Casey enjoyed the lectures on microbiology and the science of learning with Jackie Stewart!



Ian Collette

Meech Lake

For his final project, Ian decided to research dams such as the Hoover Dam and water resources, including the impact of climate change on these systems

Ian enjoyed the lectures that focused on preserving the environment!

Science 101 2022 Students & Final Projects



Marvin Delorme

Saving the Bees

Marvin focused his final project on the extremely important bee. He wanted to teach others about the species of plants that help create bee habitats. Marvin also sought to learn about the bee species that are native to Vancouver and emphasize that without bees we will not be around for much longer!



Jeremy Fleming

Title: TBD

Jeremy wanted to teach the class about his experience with cannabis and it's health benefits

Science 101 2022 Students & Final Projects



Reid Gillis

Addictions and Recovery Therapies

Reid focused his project on the science of addiction and its effect on the human body. Reid also wanted to research different types of addiction recovery therapies - how they are used, what they are and who they might help.



Julie Koo

Julie was a wonderful addition to the Science 101 class. She always brought a smile to each class. Julie was always keen to talk about detective and crime shows (true crime only! no fictional shows).

Science 101 2022 Students & Final Projects



Phillip Lam

Economics and Casino Management

Phillip chose to research the science of economics and how this relates to casino management. Phillip proposed updated methods to running a gambling facility as a way to improve them.



Vernon Lorenz

Science

Vern's final project was to write a poem inspired by the class led by Dr. Dave Ng. This poem touched on topics like the search for the truth and the scientific method

Vern's favourite classes were the ones led by Dr. Ng and Dr. Dowlatadabi.

Science 101 2022 Students & Final Projects



Brian Morozoff

Ganoderma lucidum

Brian wanted to learn more about Ganoderma lucidum a natural medicine used in Asia. This substance is used by physicians for its immune-boosting effects



Kevin Nanaquewitang

Killer Robots

Kevin focused his research on robot assassins and the realities of killer robots in the real world. He used a variety of sources including sci-fi movies and robotics research groups to learn more about how robots work

Kevin's favourite class was Mona's lecture (especially the ice cream making!)

Science 101 2022 Students & Final Projects

Our Science 101 2022 Mentor

Thank you to Gilles! He was our amazing and helpful mentor for the 2022 class. Each year we are lucky to have the assistance of alumni from the Science 101 program.

They provide students (and coordinators!) with an incredible amount of support. Gilles was an integral part of our summer - thank you!



Gilles Cyrenne

Weight Loss

Gilles used data collected during his health journey to research weight loss and healthy diets.

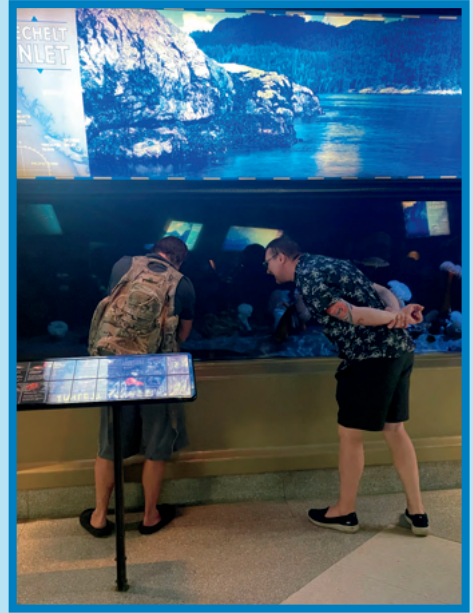
Gilles favourite lectures and activities were extracting DNA, the robot lab and risk and perception with Hadi

Some memories from Science 101

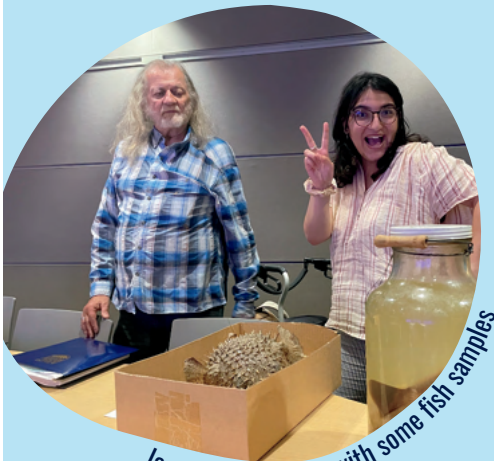


Reid inspecting some fish specimens brought in by Peter Raven

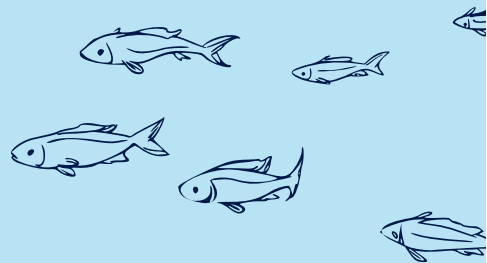
"My mentors are so cool. Young adults less than a third my age and so helpful and kind" - Ian



Jeremy & Peter inspecting the fish tanks at the Vancouver Aquarium



Ian and Niki posing with some fish samples



Some memories from Science 101



Dr. Lavallee lecturing



Gilles and Ian swabbing bacteria plates

Thank you for inviting me into your classroom! All your questions were so interesting and made me think more deeply about the material we were discussing. I also really enjoyed chatting with many of you at break and after the lecture. Congratulations on your graduation! - Rachel Wilson



Science 101 in the SPIN lab!

Some memories from Science 101

"Math and numbers are my religion and main love! I fell in love with numbers in kindergarten. It's been a long, long time relationship with Math. I love numbers, adding, subtracting, multiplying and dividing. A love affair forever. Thank you for these days. I'm so happy for the moment in my life" -

Marvin



Marvin posing with some fish specimens



Vern, Lauren and Marvin at the Aquarium



Some memories from Science 101

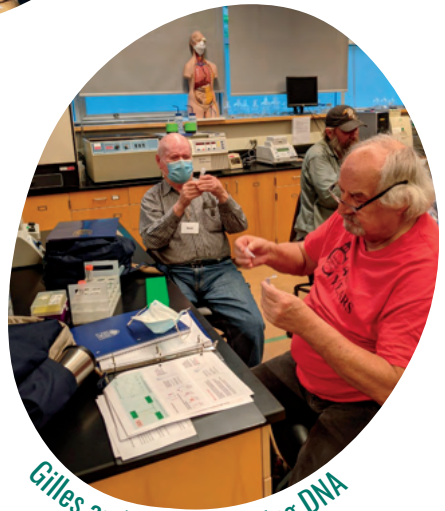
Intense climate change discussions underway...



The Science 101 class was highly engaged this year! I enjoyed our discussions about the science of learning! Congratulations on your graduation and I wish you the best. - Jackie Stewart



Jeremy swabbing a phone for microbes!



Gilles and Reid extracting DNA

"Thanks to the lecturers who volunteered their time and the administrators who allotted financial support to Science 101" - Vern

Patiently waiting for a glimpse of Grinder and Coola



Some memories from Science 101



Vern staring down a Grizzly at Grouse



Brian contemplating the UBC Botanical Garden



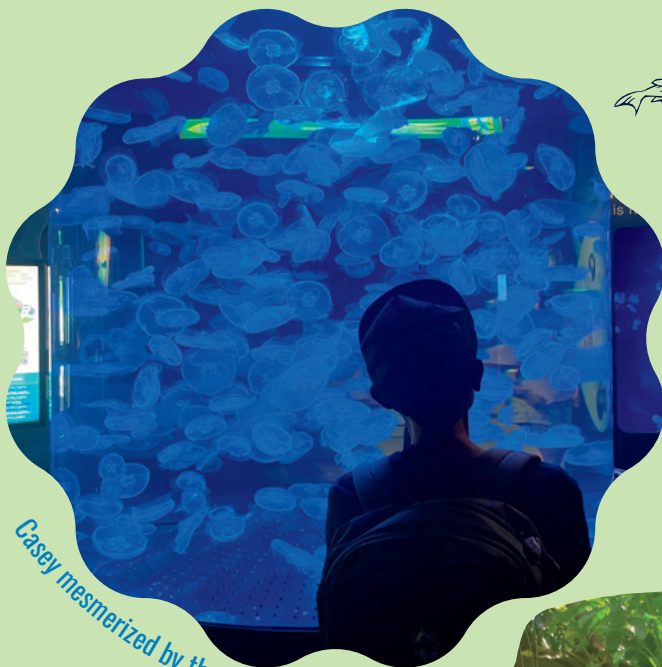
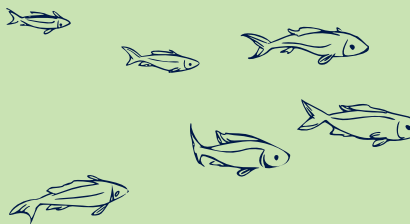
Erin and Marvin are Sun Bear-sized!

Congratulations to the Science 101 class of 2022! It was a pleasure to meet you and exchange about neuroscience with you this year. Best wishes for where your brain takes you next! - Julie Robillard

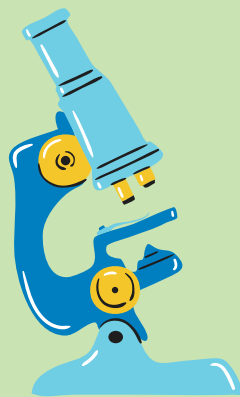


Our guide Christina, Jeremy, Marvin, Erin, Arya dancing in the long house at Grouse Mountain

Some memories from Science 101



Casey mesmerized by the jellyfish at the Aquarium



"Congratulations to all the class! We really enjoyed the discussion questions we had as a group which spanned so many different subject areas within the drug/medication/herbal/cultural healing realm.

It was so much fun when we put all put the pharmacy students on the spot to start drawing molecules on the board too! Thanks for guiding them to be better teachers and listeners!" - Mona Kwong



Kevin and Erin at the Aquarium

Science 101 Volunteers

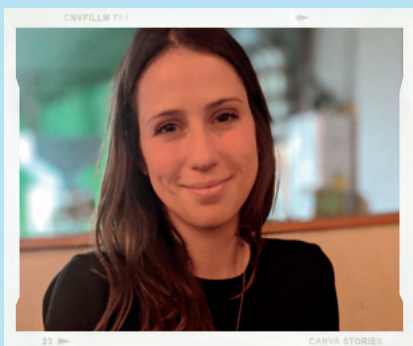


Niki Afsharpour



Arya Ardehali

Hello Science 101 Grads! Firstly, I want to congratulate each and every one of you for completing the program. It was so awesome to see the enthusiasm and genuine curiosity you brought to every lecture, field trip, and lab. I am so proud to have played a small part in this program and want to thank all of you for a fun summer of learning! I wish you all the best of luck in your future academic pursuits.



Erin Goldberg

Congratulations graduating class of Science 101! It was truly a joy to be learning alongside you and I couldn't be more impressed with the progress everyone has made. I will always cherish the memories we made together on field trips and lectures. Always stay curious and keep learning!

Science 101 Volunteers



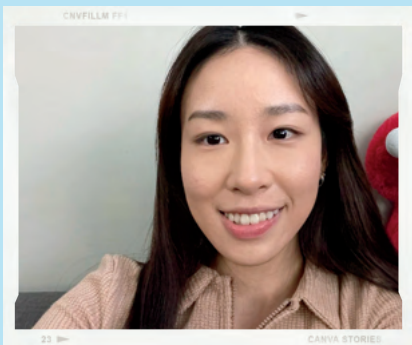
Matt Major

Congratulations to the Science 101 class of 2022 on a fantastic summer! It has been wonderful to see your enthusiasm for science and to see the lectures throughout the summer inspire fascinating discussion! I was blown away by your insight and hope you further nurture your passion for science going forward.



Shayda Taheri

It was a privilege to be a part of the Science 101 community, and to be able to learn and grow alongside you this summer! Congratulations Science 101 class of 2022 on your accomplishments this term!



Celine Yang

My favourite lecture was the one on disasters and climate change. The topic is sensitive and involves complex, societal issues, but it is the time for us to be educated on the issues we are facing and the harm we have been creating. The lecture once again raised my own awareness about environments and the ecosystems. Keep learning science!

More Quotes and Thoughts from Science101

"This has given me a reason to get out of bed. I'm excited" - Ian



"Science is about the human condition. We don't know everything but we do know somethings with varying degrees of certainty. How do scientists communicate this to the general public. That is the question."
- Vern

"This entire school experience has been enlightening. I see a future my kids can live in without hardship from climate change" - Kevin



"Thanks to all the lecturers, coordinators, volunteers and students for all the great dinner conversations, class discussions, and lively participation. Love you all!" - Gilles

"Knowledge to all and all to knowledge" - Casey



Grateful, so grateful! Thank you to Brianne Newman, Jessica Krekhno, Lauren Gill, Eric Press, Erin and all the volunteers, and the wonderful teachers and experts. Thank you so much UBC - Marvin

Acknowledgements

We are thankful to those that helped make the Science 101 Program possible.

Dean's Office, Faculty of Science, University of British Columbia

Dr. Meigan Aronson, Dean of Science

Drs. Sara Harris and Jackie Stewart, Associate Dean, Academic

Nancy Cook, Academic Project Manager

Program coordinators

Eric Press

Jessica Krekhno

Brianne Newman

Lauren Gill

Lecturers

Dave Ng, Suzie Lavallee, Shona Ellis, Johan Gilchrist, Dave Oliver, Sara Harris, Andrew Sharon, Julie Robillard, Leah Edelstein-Keshet, Ursua Ellis and Aubrey Geyer, Eric Press, Preeti Vyas and Devyani McLaren, Mona Kwong, Jackie Stewart, Brett Gilley, Rachel Wilson, Hadi Dowlatabadi, Peter Raven, Mark Halpern, Evelyn Sun, Balsher Sidhu

Tutorial presenters

Chris Oatman, Elena Zaikova, Rachel Lobay

Volunteers

Erin Goldberg, Niki Afsharpour, Arya Ardehali, Matt Major, Shayda Taheri, Celine Yang

Science 101 Alumni Mentor

Gilles Cyrenne

Field trips

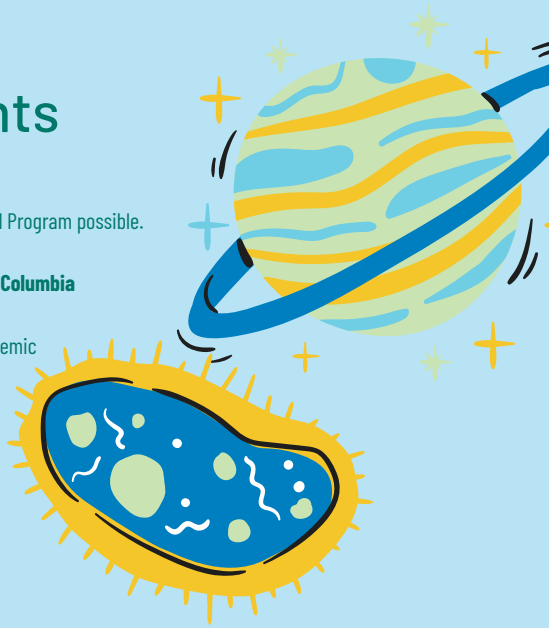
Beaty Biodiversity Museum, Grouse Mountain, UBC Farm, Vancouver Aquarium, UBC Botanical Garden, UBC Pacific Museum of the Earth

Tutorials & workshop

Matt Hume, Eliza Javier, Nick Ubels, Liz Johnston & The UBC Learning Exchange

Humanities & Writing programs

Margot Leigh Butler & Paul Woodhouse



Signatures & Notes

Signatures & Notes

Graduation Invitation

You're invited!

Science 101 Graduation

AUGUST 4TH 2022
5:00 - 8:00 PM

The Schedule:

5:00 PM: REFRESHMENTS

5:30 PM: GRADUATION CEREMONY

6:30 PM: DINNER

WITH FINAL PROJECT DISPLAY FROM

4:30-5:30 AND 6:30-7:30

Where:

MICHAEL SMITH
LABORATORIES (MSL)
101 AND 102

PLEASE RSVP BY AUGUST 1ST VIA EMAIL
TO SCIENCE101@SCIENCE.UBC.CA

Science 101

<https://science.ubc.ca/community/101>

science101@science.ubc.ca



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