UBC Geering Up
Engineering Outreach

VIRTUAL COMPUTER SCIENCE WORKSHOPS

Geering Up offers subsidized virtual coding workshops consisting of exciting software-based activities that stimulate computational thinking and literacy. Workshops will be led by two Geering Up instructors who will help equip students with the tools and knowledge they need to further explore computer science after the workshop.

Dates: May 10 -June 18, 2021

Length: 1-1.5 hours; up to three workshops a day

Cost: $100 per workshop

We offer financial support to schools who would otherwise be unable to afford our workshops, please see the registration form below for more details.

SAMPLE SCHEDULE

Our workshops are designed for single classes of up to 30 students. Each of our teams can teach up to three workshops a day, according to the following schedule. We are happy to accommodate the nuances of your school's bell schedule.

Workshop 1 9:00 am - 10:15 am

Workshop 2 10:30 am - 12:00 pm

Workshop 3 1:00 pm- 2:30 pm

CONTACT US

Email: workshops@geeringup.ca
Website: http://geeringup.ca/teachers/workshops
Address: Room 160, 3800 Wesbrook Mall, Vancouver BC, V6S 2L9

A network member of actua.ca

actua
Youth · STEM · Innovation

Geering Up is a proud network member of Actua. Actua provides training, resources and support to its national network of members located at universities and colleges across Canada in the delivery of science, technology, engineering and mathematics (STEM) education outreach programming. Each year these members engage over 225,000 youth in 500 communities nationwide. Please visit Actua at www.actua.ca.

COMPUTER SCIENCE WORKSHOPS

Introduction to Machine Learning (Grades 8-10)

In this workshop, students will be introduced to the world of machine learning and artificial intelligence. Students will explore real-world examples with their own machine learning algorithm that uses existing datasets to make predictions.

BC Curriculum Ties: Evolution of digital technology, impacts of computers and technology on society, principles of computational thinking

Python Puzzle (Grades 8-10)

In this introductory workshop, students will learn the basics of python coding syntax and functions. Students will use logic and planning skills to create their own word guessing game.

BC Curriculum Ties: Debugging algorithms and programs, principles of computational thinking, text-based coding

Win Big with Python (Grades 11/12)

In this workshop, students will learn the basics of object oriented programming by applying design and computational techniques to the game blackjack. Students will learn how a simple card game relates to the behaviors and elements needed to write a software program. They will use Python to implement their design plan and create a blackjack program.

BC Curriculum Ties: Debugging tools, design cycle, advanced programming structures, computational thinking, pre-built libraries

3D Design (Grades 11/12)

3D modelling is a field that has grown rapidly with the emergence of inexpensive computer numeric controlled devices such as 3D printers. In this workshop, students will learn how to use a free, robust 3D modelling software and practice using it by designing a mug.

Please note students' designs will not be printed by Geering Up.

BC Curriculum Ties: methods and principles of 30 graphic design, design opportunities, tools and techniques for image manipulation, prototyping methods and tools

VIRTUAL WORKSHOPS

Our workshops will be conducted via a virtual platform, such as Zoom, and can be offered to students during their in-person class time at school, or during their home-learning/out-of-school periods depending on your school's schedule. If students are in school during the workshop, Geering Up instructors should be projected on a classroom screen for all students to follow along. Geering Up will provide you with a link in advance of the workshop. If students are at home, Geering Up instructors can join your virtual classroom. Each student or pair of students will need a computer with internet connection to participate in the workshop activities. On the registration form below please let us know if your students will be joining our workshops from inside the classroom or during their home-learning/out-of-school period.

REGISTRATION FORM

School Name:

Primary Contact:

Primary Contact Email:

Primary Contact Phone:

Location of Participants:

If you would like to request financial assistance for this workshop, please tell us why:

Workshop Date	Workshop Time Slot	Workshop Topic	Teacher	Class size	Grade

If you wish to book more workshops than allowable in the space provided, please contact us at workshops@geeringup.ca

actua Youth · STEM · Innovation

UBC Geering Up Engineering Outreach

/code:makers_ actua Google

Frequently Asked Questions

I have multiple days that are available for a workshop.What should I do?

Please list all dates that you have available for your booking and we will get back to you about which ones will work best!

What should I do if I am unable to book a workshop due to financial constraints?

We offer some financial support to schools who would otherwise be unable to afford our workshops. Please tell us more about your situation in the registration form or via email and we will try to accommodate your request.

What other information should I include when sending my registration form?

Please include any additional information that you feel to be helpful for our workshops team to know to ensure the success of your workshop. This may include, but is not limited to, students with exceptionalities, classroom limitations, special considerations, and so on.

I have a different question. What should I do?

Visit our website, http://geeringup.ca/teachers/workshops , or contact us at workshops@geeringup.ca for any questions that you may have.

actua Youth · STEM · Innovation

UBC Geering Up Engineering Outreach

/code:makers_ actua Google