

# SFU APPLIED SCIENCES OUTREACH & SCIENCE ALIVE FREE YOUTH PROGRAMS



## SFU APPLIED SCIENCES IS FOR YOU: CAMPUS VISIT FOR BLACK YOUTH

Feb 23, 2024 | 10:00 am - 1:30 pm | Grade 8-10

In partnership with the Black Women Business Network (BWBN), SFU Faculty of Applied Sciences would like to invite interested African, Caribbean, and Black youth in grades 8, 9, & 10, come and explore the Faculty of Applied Sciences at the SFU Surrey Campus Sustainable Energy Engineering building. The event will include a guided tour of the building, a complimentary lunch and presentation from an advisor to learn more about the Faculty of Applied Sciences programs at SFU, and a hands-on activity related to applied science.

[REGISTER HERE](#)

## GO CODE GIRL

Mar 16, 2024 | 1:30 pm - 3:30 pm | Grade 7-10

In partnership with the Ontario Network for Women in Engineering (ONWIE), and SFU's Women in Engineering, SFU's Faculty of Applied Sciences invites \*girls (grades 7 - 10) to learn more about the wonderful world of computer science. Please join us for this FREE event where girls will have fun participating in a hands-on activity and learn about the possibilities of computer science as a career choice. Limited space is available so sign up today! No prior experience with coding required!

[REGISTER HERE](#)

# STEM SPEAKER SERIES



## STEM SPEAKER SERIES

The STEM Speaker Series provides high school students with the opportunity to meet and interact with university students, faculty members, and/or working professionals in STEM fields. See topics for February to June 2024 below. You can also check out past and future events [here](#).

### Critical Care Nursing

Feb 24, 2024 | 1:00 pm - 2:00 pm | Grade 8-12

Our guest speaker for February is Evelynnn Yap. Evelynnn is a registered nurse, specializing in critical care. With over seven years of experience, her diverse expertise spans across working in different hospital units and at health centers in northern Indigenous communities. Ever wonder how STEM concepts and skills intersect with healthcare? Join this talk for an opportunity to learn about Evelynnn's valuable perspectives!

[REGISTER HERE](#)

## Aviation Software: Navigating the Skies with Software Tools

Mar 2, 2024 | 1:00 pm - 2:00 pm | Grade 8-12

Our guest speaker for March is [Florian Krauthan](#). Florian is an engineering manager at FISPAN, a local financial technology company in Vancouver. He enjoys learning new programming languages and building open-source, practical tools in his spare time. Florian also holds a private pilot license and has recently started working on tools to assist pilots in flight planning. Join this talk to learn how Florian combines both his passion for coding and aviation!

[REGISTER HERE](#)

## Stem Cell Biology

Apr 20, 2024 | 1:00 pm - 2:00 pm | Grade 8-12

Our guest speaker for April is [Dr. Valentina Marchetti](#). Dr. Marchetti is a senior scientist at Stemcell Technologies and an Adjunct Professor in the Faculty of Science at Simon Fraser University. She obtained her PhD in experimental physiopathology at the University of Rome, Italy, and spent 5 years as post-doctoral fellow at The Scripps Research Institute. One of her research interests was studying the role of endothelial stem cells, which differentiate to form blood vessels, in the onset of heart and blood vessel diseases. Join this talk to learn about endothelial stem cells and their applications!

[REGISTER HERE](#)

## Mechatronic Systems Engineering

June 8, 2024 | 1:00 pm - 2:00 pm | Grade 8-12

Our guest speaker for June is [Dr. John Shen](#). Dr. John Shen is a professor and the director of the [School of Mechatronic Systems Engineering](#) at Simon Fraser University. He has over 30 years of academic, industrial, and entrepreneurial experience in the field of power electronics, power semiconductor devices, renewable energy systems, fault protection of DC and AC microgrids, and transportation electrification. In this talk, Dr. Shen will provide an introduction to the dynamic field of mechatronic systems engineering and exciting career opportunities within the discipline. Join us to learn more!

[REGISTER HERE](#)



## HACK THE FUTURE

Hack the Future is an online hackathon for Grade 8-12 girls, young women, and non-binary youth. Our aim is to foster a safe and inclusive learning environment centered on creativity, collaboration, and knowledge sharing. We welcome participants of all levels of expertise, whether you are new to coding or have some coding experience! For those who are new to coding, we will offer several pre-hackathon workshops to help you develop your skills in various digital tools and programming languages. The registration for the hackathon and pre-hackathon workshops is free. Join us to learn new skills, unleash your creativity, and win exciting prizes while making lasting connections with mentors and your peers! Check out our [website](#) to learn more.

### Pre-hackathon Workshop: Mobile App Dev

Feb 10, 2024 | 10:00 am - 12:00 pm | Grade 8-12

The Mobile App Dev workshop is open to students who are interested in how to plan, prototype, and code a mobile app. This workshop is beginner-friendly and will use [Thunkable](#), which is a drag-and-drop app builder. Don't forget to review the [workshop overview and requirements](#) before registering! Please note that this workshop is the same as the Hour++ of Code Mobile App Dev workshop; it is cross-promoted as a pre-hackathon workshop to Hack the Future participants.

[REGISTER HERE](#)

## Pre-hackathon Workshop: Intro to HTML/CSS

Feb 24, 2024 | 10:00 am - 12:00 pm | Grade 8-12

The Intro to HTML & CSS workshop is open to students who are interested in learning the basics of HTML and CSS and how to use them for making web pages. This workshop is beginner-friendly and will use [CodePen](#). Don't forget to review the [workshop overview and requirements](#) before registering! Please note that this workshop is the same as the Hour++ of Code HTML/CSS workshop; it is cross-promoted as a pre-hackathon workshop to Hack the Future participants.

[REGISTER HERE](#)

## Pre-hackathon Workshop: Machine Learning for Kids

Mar 2, 2024 | 10:00 am - 11:00 am | Grade 8-12

[Machine Learning for Kids](#) is a free, web-based tool that offers hands-on experiences for training machine learning models and creating projects. For hackathon participants who are interested in exploring AI concepts and skills, this pre-hackathon workshop could be for you!

[REGISTER HERE](#)

## Pre-hackathon Workshop: How to Present Your Project

Mar 2, 2024 | 11:00 am - 12:00 pm | Grade 8-12

At the end of the hackathon, participants will present their project to a panel of judges and their peers. Join this pre-hackathon workshop and learn how to craft an engaging presentation to effectively communicate your project with a general audience!

[REGISTER HERE](#)

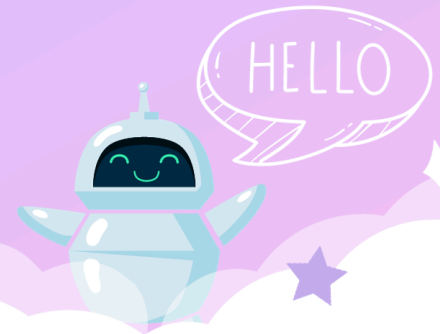
## Hack the Future Hackathon

Mar 9, 2024 | 9:00 am - 4:30 pm | Grade 8-12

The deadline to sign up for this online hackathon is March 4 (Mon) at 11:59 pm. You can join the hackathon as an individual or a team of five. If you plan to join as a team, please choose a team captain. The team captain will be responsible for signing up the team and acting as the team's main contact. Please make sure you select the number of tickets to reflect the number of team members. For example, if you are a team of five (including yourself), please select five tickets during sign-up. Check out our [website](#) for more details and updates!

[REGISTER HERE](#)

# HOUR ++ OF CODE



## HOUR++ OF CODE

The Hour Plus Plus of Code event features various one-off workshops for school-age students to learn how to code and implement popular digital tools. Between Feb to Mar 2024, we will be offering multiple online workshops on various topics ranging from user interface and experience design, programming logic foundations (in Python and Java), mobile app development, and game development. Please review the overview and requirements document for each workshop before registering. Not sure if coding is for you? Join us for these workshops and let us change your mind!

### Mobile App Dev

Feb 10, 2024 | 10:00 am - 12:00 pm | Grade 8-12

The Mobile App Dev workshop is open to Grade 8-12 students who are interested in how to plan, prototype, and code a mobile app. This workshop is beginner-friendly and will use [Thunkable](#), which is a drag-and-drop app builder. Don't forget to review the [workshop overview and requirements](#) before registering! Please note that this workshop is cross-promoted as a pre-hackathon workshop to Hack the Future participants.

[REGISTER HERE](#)



## Intro to HTML/CSS

Feb 24, 2024 | 10:00 am - 12:00 pm | Grade 8-12

The Intro to HTML & CSS workshop is open to Grade 8-12 students who are interested in learning the basics of HTML and CSS and how to use them for making web pages. This workshop is beginner-friendly and will use [CodePen](#). Don't forget to review the [workshop overview and requirements](#) before registering! Please note that this workshop is cross-promoted as a pre-hackathon workshop to Hack the Future participants.

[REGISTER HERE](#)

## Special Topics: AI in Cybersecurity

Mar 23, 2024 | 10:00 am - 12:00 pm | Grade 9-12

The Artificial Intelligence (AI) in Cybersecurity workshop is open to Grade 9-12 students who are interested in AI models and how they can be trained to combat digital attacks, such as phishing. This workshop will require a [Replit](#) and some programming experience in Python. Don't forget to review the [workshop overview and requirements](#) before registering!

[REGISTER HERE](#)

## GRADE 4-9 SUMMER PROGRAMS PRE-LAUNCH

We will be offering various full-day workshops and week-long summer programs for Grade 4-9 students between May-Aug 2024. These workshops and programs will cover a wide range of topics, including design thinking, basic coding concepts, mobile app development, societal impacts of technology, and artificial intelligence. Feel free to sign-up to be the first to hear about these offerings! Alternatively, you can stay up-to-date by checking our [website](#)!

[REGISTER HERE](#)



# SFU APPLIED SCIENCES OUTREACH & SCIENCE ALIVE

## PAID YOUTH SUMMER CAMPS



### APP DEV SUMMER PROGRAM

Summer 2024 | Grade 4-9

The App Dev Summer Program features fun, engaging workshops on mobile app development using [Thunkable](#), which is a drag-and-drop app builder. In this week-long program, Grade 4-9 coders will plan and prototype their app designs, learn basic coding concepts, code a mobile app, and present and demo their projects on the final day! Registration for the App Dev Summer Program will open by Feb 9, 2024. Use the link below to learn more! If you are interested in this program but the registration link is not ready yet, please fill out this [form](#). We will notify you once the registration link is available.

[CLICK TO LEARN MORE](#)

## INVENT THE FUTURE AI SUMMER PROGRAM

Summer 2024 | Grade 7-9

Artificial intelligence (AI) has become an integral part of our daily lives, from digital voice assistants to self-driving cars, and more recently, in the form of advanced chatbots like ChatGPT. The Invent the Future Program aims to introduce Grade 7-9 students to AI concepts and their applications through code-along workshops, projects, and group discussions. Registration for the Invent the Future Program will open by Feb 9, 2024. Use the link below to learn more! If you are interested in this program but the registration link is not ready yet, please fill out this [form](#). We will notify you once the registration link is available.

[CLICK TO LEARN MORE](#)

### [SUBSCRIBE TO OUR OUTREACH COMMUNITY PROGRAMS NEWSLETTER](#)

Interested in hearing more about Science ALIVE programs throughout the year? Sign-up for our monthly newsletter which lists our current free and paid youth programs in a community near you as well as teacher professional development opportunities and resources.

[APPLY TO WORK AT SCIENCE ALIVE](#)

[APPLY TO VOLUNTEER AT SCIENCE ALIVE](#)

Interested in working or volunteering with Science ALIVE? Check out our application pages for more information.

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Email: [fas\\_outreach@sfu.ca](mailto:fas_outreach@sfu.ca) | <https://www.sfu.ca/fas/outreach>

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