



Position: Codemakers Instructor

Number of Positions Available: 1

Job Location: University of Victoria, Victoria BC

Term: April 29th to August 30th, 2024

Salary: \$3192/month (+ 4% in-lieu of vacation pay) | 38 hours/week (FT)

Deadline: Thursday March 28th, 2024 at 10:00 am

Contact/Questions: Krystyn Dubicki (svprograms@uvic.ca or 250-721-8158)

Description

The University of Victoria's Science Venture program has been delivering STEM (science, technology, engineering, and mathematics) programming to Vancouver Island youth (ages 5-18) since 1991. Through innovative in-school workshops, after-school clubs, summer camps and events, our mission is: To inspire all Vancouver Island youth to explore their potential and discover their vital role in the world through life changing STEM experiences.

Our Codemakers Instructors teach our Codemakers summer camps where their primary role this summer will be to develop and create high-quality and innovative Computer Science workshops and camp curriculum related to Computer Science and related Engineering specialties that UVic offers (e.g. Computer, Electrical, Mechanical, and Software). They will then deliver their developed content to our beginner, intermediate and advanced Codemakers summer camps (youth in Grades 4-8). This what your term will look like:

1) **Training and In-School Workshops (May-June)**

Participate in Science Venture & Actua training sessions. All instructors will receive training in behaviour management, principles of equity, diversity and inclusion, and Science Venture policies and best practices. Participate in in-school workshop season, delivering pre-developed workshops to youth in Grades K-8.

2) **Curriculum Development (June)**

Researching, planning, prototyping, tinkering and remixing old workshops and programs. Creation of new and innovative coding and technological experiences for youth in Grades 4-8 using our diverse options of equipment and tech available (See Below – Technical Projects). Also responsible for maintaining the Makerspace.

3) **Summer Camp (8 weeks in July and August)**

Delivering camp as a co-instructor team for 8 weeks. Maintaining an inclusive and safe space for all youth. Following daily camp procedures (sign-in, lunch time, sign-out, extended hours, injury reporting). Contributing to the future of the program by participating in evaluation, providing feedback, and sharing success stories.

4) **Debrief, Reporting and Clean Up (Last week of Term)**

Debriefing post-program delivery, ensuring statistics are collected accurately. Update lesson plans based on community feedback. Organize and inventory delivery materials.

Technical Projects

The successful applicants will have a significant amount of freedom and initiative to use the vast numbers of tools and tech we have accessible to create projects to do in their programs. Some of the tech and tools you'll have available to create with include:

- Micro:bits (microcontroller that is programmed using block coding; variety of functions) and associated peripherals (e.g. K8's)
- Sphero robots & Ozobots
- Oculus
- Arduinos



- VEX and Lego Robotics Kits
- 3D Printers

There are plenty of technical challenges to solve, the real challenge will be to decide what you want to do. Below is a selection of recent technical projects that have been done at Science Venture:

- Workshop that uses Scratch to be able to process MRI images for cancer detection
- Using a Micro;bit to make Theremin (musical instrument)
- Creation of a 3D world explorable via Oculus
- Remote deployment of a 3D printed parachute system aboard a bottle rocket
- Designing an Arduino-controlled VEX robot (for High School programming)

Location

In general, this position will occur at the Science Venture Makerspace, which is located at the University of Victoria. During camp season, most of our camp programming will occur at the University of Victoria campus. There may be additional opportunities to travel to the North Island and visit remote First Nations communities. Some staff will be needed to drive to our in-school workshops. If no UVic Van is available, then Modo carshare or staff personal vehicles will be used (reimbursement provided).

Qualifications Criteria

Required:

- Be pursuing or recently completed a university degree or college diploma (Engineering or Computer Science preferred)
- Have (or be willing to obtain) a First Aid + CPR-C certificate
- Complete a criminal record check when hired

Assets:

- Class 5 BC driver's licence (no "N" or "L")
- Conversational French

Key Competencies:

- A passion and interest in STEM outreach and education
- Experience working/volunteering with youth in a camp or educational setting
- Ability to act as a role model to youth and work in a team environment
- Openness to learning and feedback
- Ability to be resourceful, flexible and adaptable to a fast-paced work environment

Application Procedure

1. Get to know Science Venture

Explore our website. Visit our Facebook and X pages. See if this job is for you!

2. Prepare your application

Update your cover letter and resume. Complete the application form available on our website.

3. Submit

All UVic co-op students must upload the application form, resume, and cover letter to the Learning in Motion



website. All other applicants please email completed package (application form, resume and cover letter) to svprograms@uvic.ca.

4. Application Questions?

Any questions about the application procedure can directed to Krystyn Dubicki at svprograms@uvic.ca.

Deadline

All applications must be received by: March 28, 2023 at 10:00 am. Only those short-listed will be contact by email to schedule an interview.