

UBC Science Co-op



LIFE SCIENCES CO-OP

Microbiology and Immunology (MBIM) Information Session Winter 2025

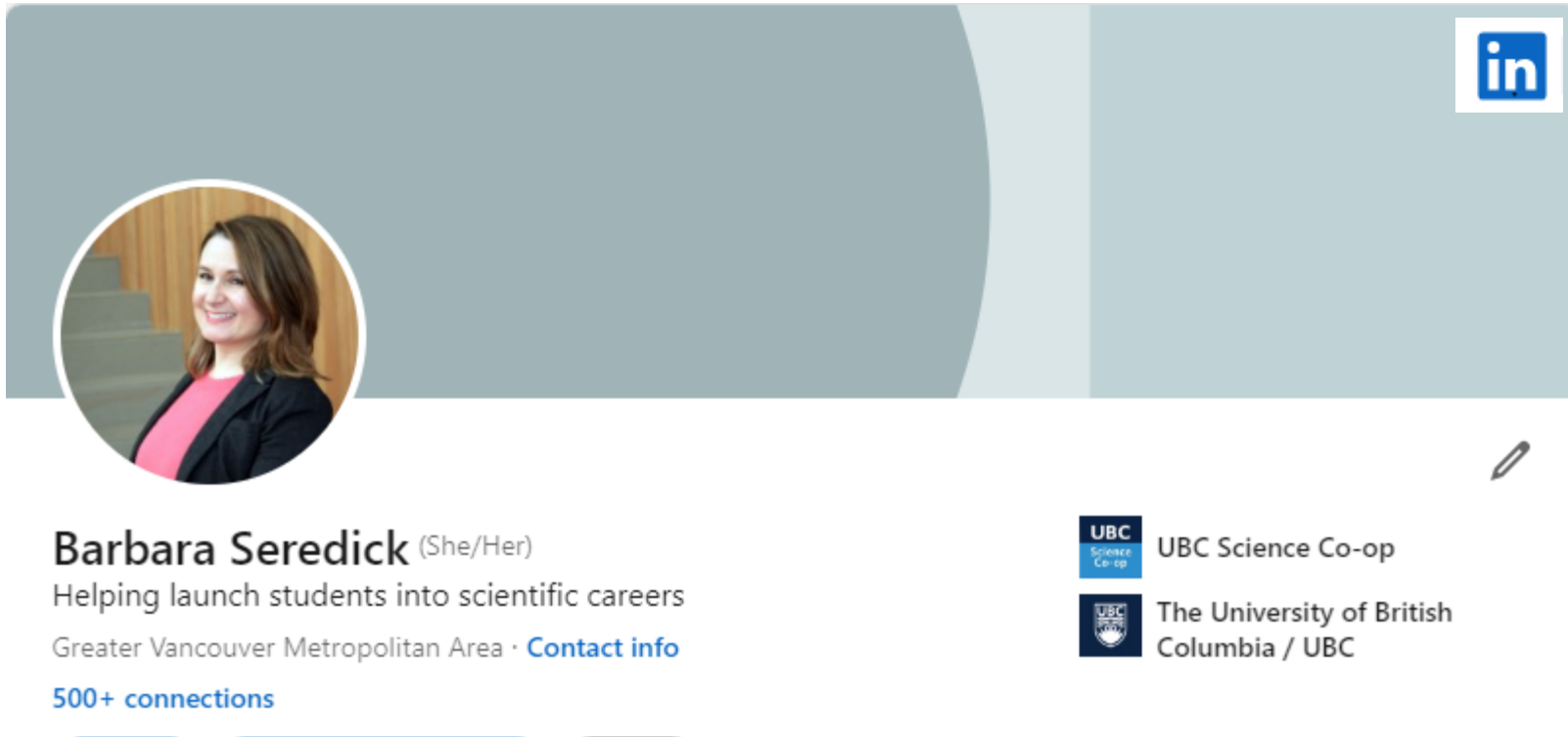


Land Acknowledgement



I would like to acknowledge that I work from the traditional unceded territories of the Coast Salish Peoples, including the territories of the xwməθkwəyəm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Səl̓ílwətaʔ/Selilwitulh (Tsleil- Waututh), q̓ícə'yKatzie, (Kwantlen) and SEMYOME (Semiahmoo) First Nations.

Who am I?



Life Sciences Co-op Coordinator, Microbiology & Immunology, Biotechnology Programs

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How do you get from *here* to *there*?



What hard skills do employers expect you to have before graduation?

Experience in **multicolor flow cytometry, immunological techniques, bioassays**

Experience in **analytical instruments and techniques**

Familiarity with common lab procedures (**histology, immunohistochemistry, nucleic acid extraction, PCR, qPCR, Western blotting**)

Experience with **aseptic processing of mammalian or primary cell culture** in a BSC

Experience **purifying and characterizing proteins**

Experience in **assay development**

Bioinformatics experience

Experience in **SDS-PAE, HIC, UV-Vis**

Proficient in **Microsoft applications, FlowJo, FCS Express**

Understanding of **MATLAB**

Experience in **statistics, Machine learning, multivariable calculus and linear algebra**

Experience in **data visualization and computer programming**

Experience in **design and execution of experiments**

Experience **working with animals**

Experience in **CRISR-Cas9**

What soft skills do employers expect you to have before graduation?

Ability to **critically read** and **understand** **scientific literature**

Capacity to **work independently** with little supervision

Organized and able to **prioritize** effectively

Excellent **verbal** and **written** **communication** skills

Experience **writing** **technical documents**

Able to proactively **collaborate**

Ability to keep **detailed records**

Able to work in a **fast-paced** and **dynamic** environment

Ability to **meet** **deadlines**

Good **organizational** skills

Excellent **documentation** and **data management** skills

Strong **analytical** skills, including **data analysis** and **troubleshooting**

Experience **communicating** **results** in **presentation** format

Detail-oriented and good **time** **management** skills

How do you get from *here* to *there*?

network

Find a job

Create a resume

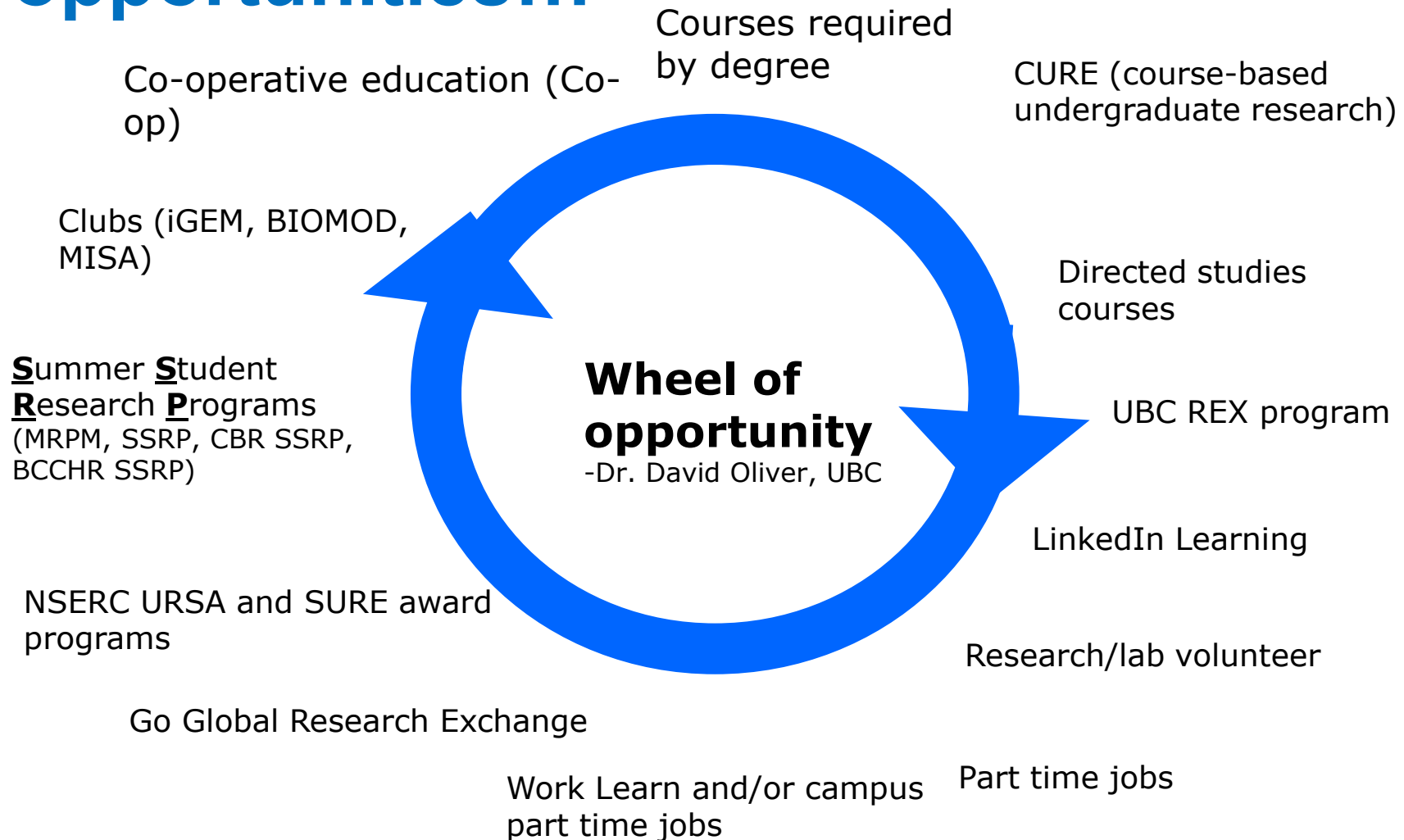


Write cover letter

interview



Undergraduate skill building opportunities...



Undergraduate skill building opportunities...

Co-operative education (Co-op)

Courses required by degree

CURE (course-based undergraduate research)

Clubs (iGEM, BIOMOD, MISA)

Summer Student
Research Programs
(MRPM, SSRP, CBR SSRP, BCCHR SSRP)

Wheel of opportunity
-Dr. David Oliver, UBC

Directed studies courses

UBC REX program

LinkedIn Learning

NSERC URSA and SURE award programs

Research/lab volunteer

Go Global Research Exchange

Work Learn and/or campus part time jobs

Part time jobs

What is Co-op?

- Program that integrates academic studies with relevant, paid work experience.
 - gain **skills** and **experience** to prepare you for the future job market
 - **improved employment opportunities** after graduation.



Local, national, international positions

What employers?



Provincial Health
Services Authority



SickKids®

+many
others!



University of Toronto



The University of British Columbia



BC Centre for Disease Control



AbCellera



Government
of Canada

Gouvernement
du Canada



University of Calgary



BC WOMEN'S
HOSPITAL+
HEALTH CENTRE



What types of positions?

- Bioinformatics Co-op Student, VGH
- Quality Control Cell Separation, STEMCELL
- Student Research Assistant, Terry Fox Lab
- Marketing Leads, STEMCELL,
- Research Assistant, UBC Michael Smith Laboratories
- Research Assistant, Institute of Molecular Biology, A*STAR (Singapore)
- Clinical Trial co-op student, OPSEI
- Research Assistant, McGill University
- Health Promotion Coordinator, UBC School of Population and Public Health
- Co-op Student, BC Cancer Deeley Research Center
- Research Assistant, UBC Faculty of Medicine
- Research Assistant, Virogin Biotech
- Research Technician, Biology, Chinook Therapeutics
- Co-op Japan, Osaka Gas, Japan
- Co-op Student, Protein Engineering, Zymeworks
- Research Assistant, ABM
- Immunology and Immunotherapy Co-op, BC Children's Hospital Research Institute
- Co-op Student, Screening/Assay Development, adMare BioInnovations (CDRD)
- Virology Research Assistant, Agriculture and Agri-food Canada
- Contract Assay Services Co-op student, STEMCELL
- Co-op Student-Research & Co-op Student-Microbiology & Analytical Sciences, Sanofi-Pasteur
- Research Assistant, SickKids Hospital Toronto
- Clinical Research Assistant, St. Paul's Hospital
- Co-op Student, ICORD
- Co-op Student, In Vitro Pharmacology, Xenon Pharmaceuticals
- Vineyard and Winery intern, Beaufort Vineyard

General overview

3200 +

Science students currently active in the Co-op program.

700+

Life Sciences students **working** every term.

2000 +

Microbiology students have been active in the Co-op program since it's inception.

experience

Many **opportunities**, and **experience** available to Co-op students that are generally **not available to non-Co-op students**.

↑ success

Co-op enables students to **achieve greater levels of success** in their pursuits after graduation.

What do former co-op students think about co-op?

“When I think back to the year, **I see how far I have come.** All I did was fill out a few forms in UBC Scope and participate in a phone interview. As a result, I **met so many awesome people** and had numerous wonderful experiences. **I have become more open and independent due to my Co-op experience.**” –
Rex Chen, Chemistry

My university **experience has been transformative** and I **largely credit my Co-op Education for guiding my journey.** It offered the freedom to **explore different avenues of my broad degree** and eventually helped me **find a suitable career path.** I went far (figuratively and literally!) and made lasting **friendships and connections** along the way. – Lorna Tu, Biophysics

Almost a year later from when I interviewed for my current placement, I can honestly say that **applying to the co-op program was one of the best—if not the very best—decisions I made at UBC.** I have never felt more challenged, excited, and inspired in my life and I am glad I stepped on the brakes to take the road less traveled. –Judy So, MICB

One of the most profound effects of co-op can be seen by **comparing my academic average before and after my work term.** I better understand the application of my studies, which in turn motivates me to excel in my classes. – Jung-Bahadur Singh Kandola, Biology

I am **grateful for the skills and confidence that I gained during my co-op placement** and feel much more ‘employ-able’ as student with significant experience outside of academics. –Laura Meleady, Biochemistry

EXAMPLE STUDENTS

<https://sciencecoop.ubc.ca/community/co-op-chronicles>



Judy – BC
Children's
Hospital (12
months)



Clarisse– Jack
Bell Research
Center,
Zymeworks (20
months total)



David –
Broadcom,
Amazon,
Microsoft, EA
Sports (16
months total)



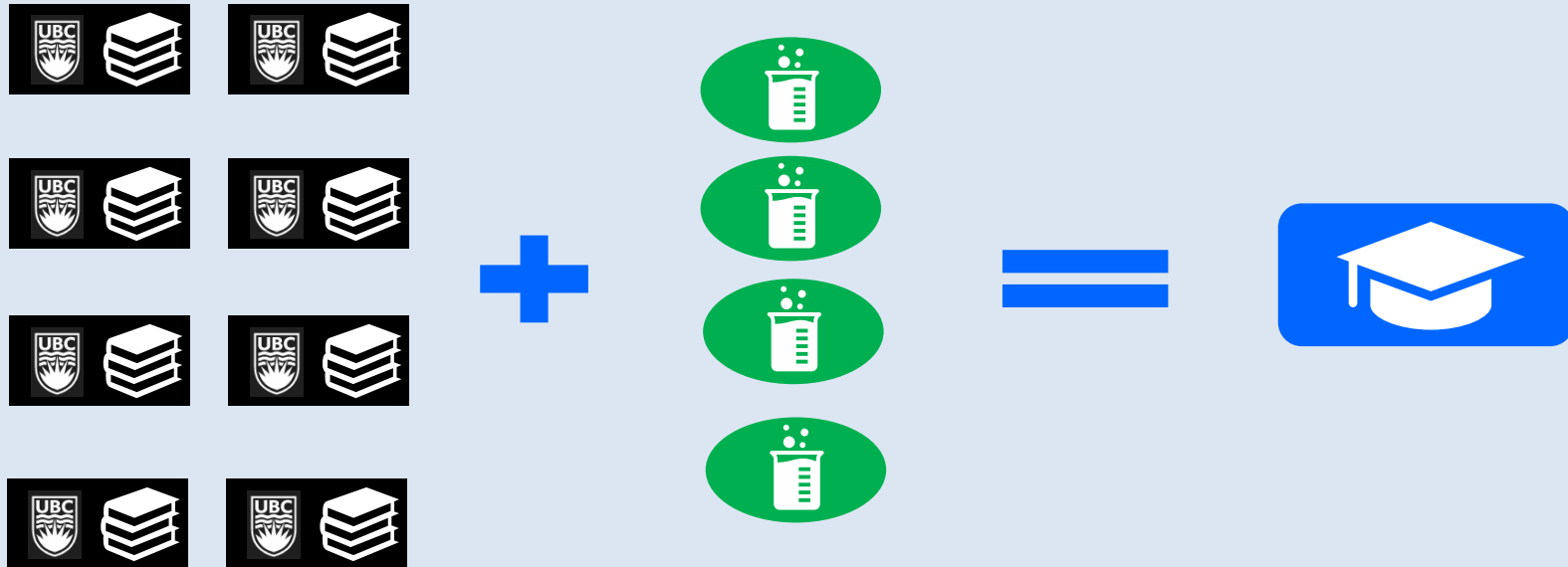
Sharisse–
STEMCELL,
BOEING (16
months total)

How does it work?

Learn to be a **Co-op student** (Workshops)

Participate in one or more **job searches**

Compete four 4-month positions (work terms) to graduate with the *Co-op distinction*

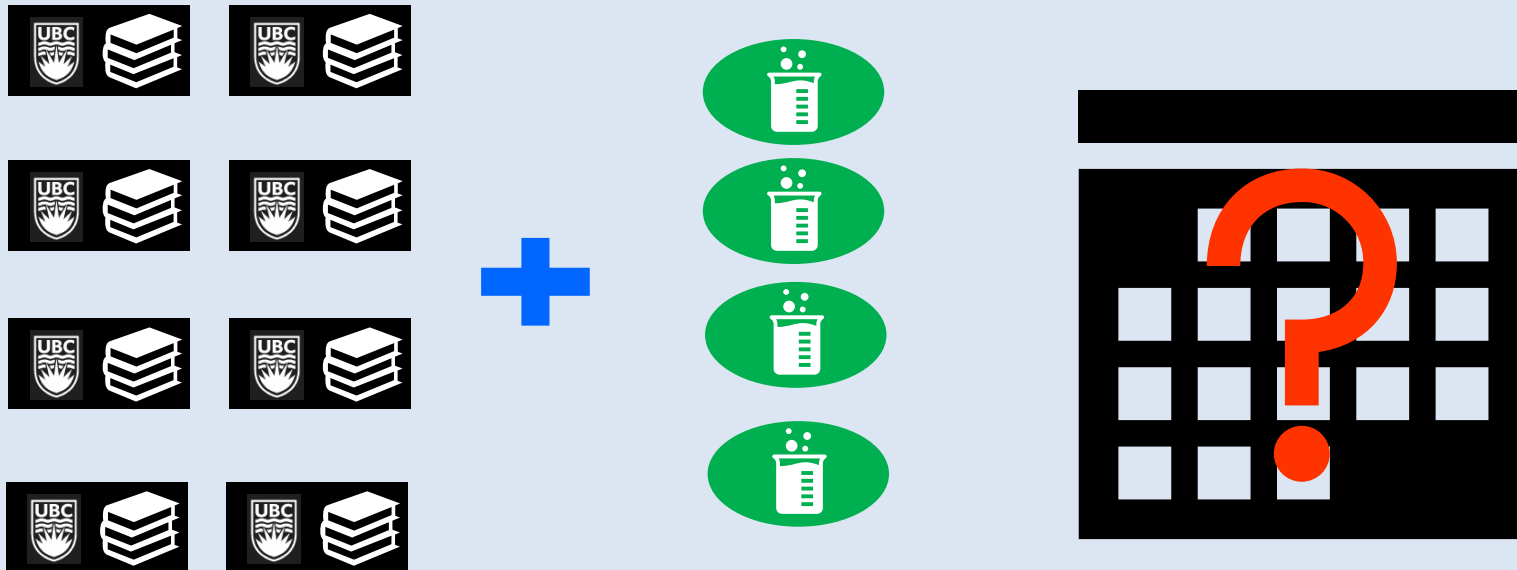


→ increases time to complete degree by **1 year** BUT **YOU GRADUATE WITH EXPERIENCE!**

Program Timing

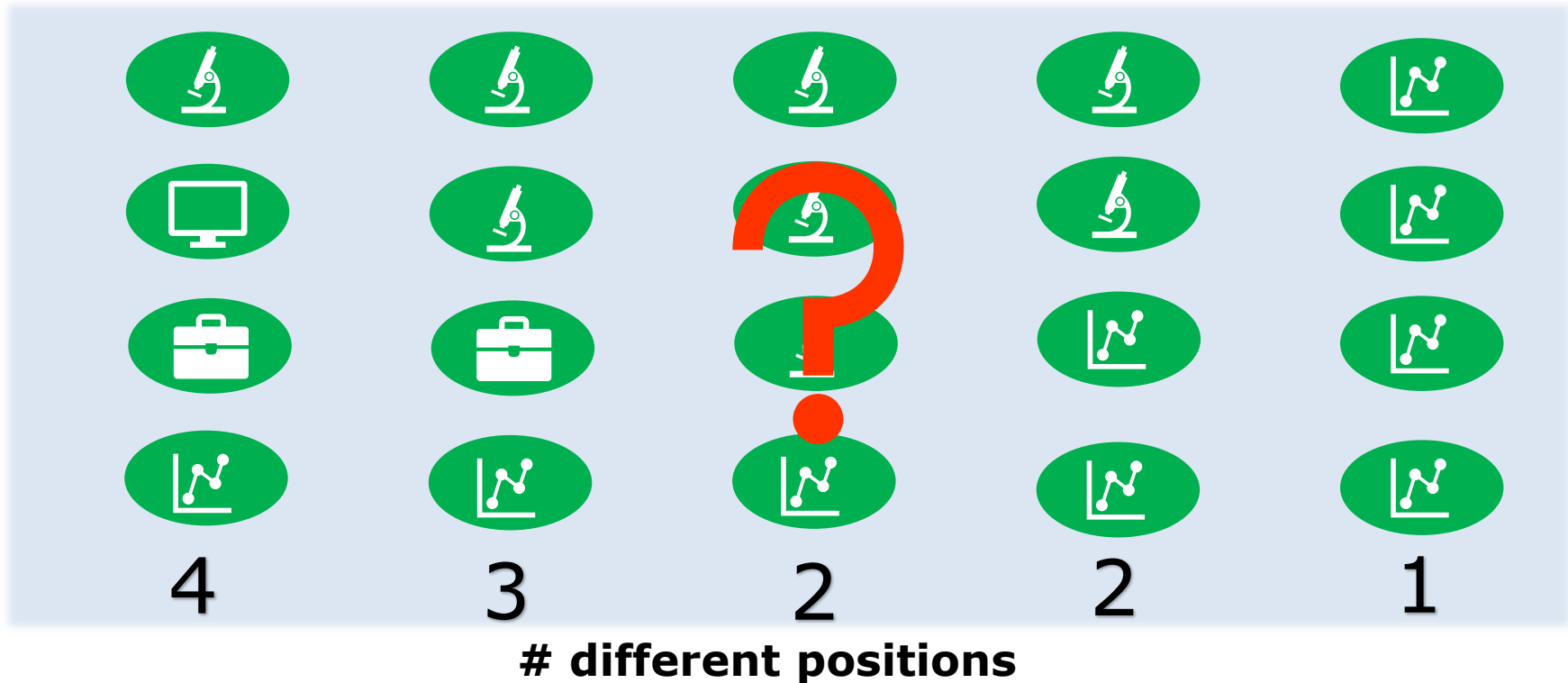
WHEN the work terms happen depends on your “Co-op schedule”

- *earliest work experience start: after your 2nd year classes have finished*
- *Latest time to join co-op? Spring of 3rd year (fall of 4th year is too late)*



Program Timing

How many different positions you work in depends on what you apply to and what is available



→ Up to 4 different positions possible (*most students do 2 different positions*)

When to apply?

2nd year: NOW or FALL

- 3 different schedules available to you dependent on timing of lab courses, MCAT/DAT/OAT etc.

3rd year: NOW (preferred)

- 1* schedule option available to you that will enable you to complete 3 work terms only

Schedules – “2nd year FALL start” *NEW*

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study	<i>(Summer off/MCAT/DAT)</i>
3	Work	Work	Work
4	Study	Study	Work
5	Study	Study	

Schedules –Schedule “A”

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study	<i>(Summer off/MCAT/DAT)</i>
3	Study	Work	Work
4	Study	Study	Work
5	Work	Study	

Schedules – Schedule “B”

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study	<i>(Summer off/MCAT/DAT)</i>
3	Study	Study	Work
4	Work	Work	Work
5	Study	Study	

Schedules –Schedule “C”

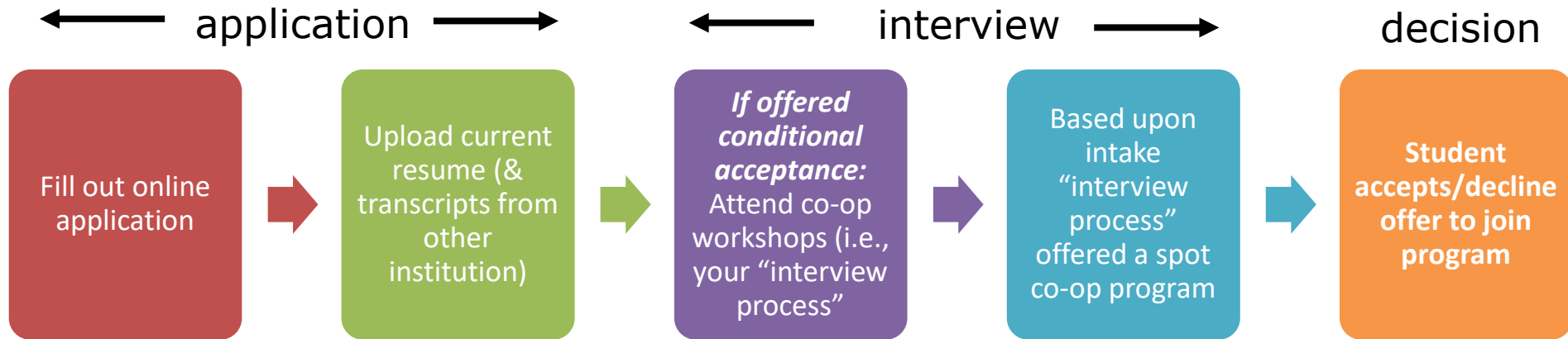
Schedule compatible with MICB 322/323 taken during the summer

Schedule compatible with students studying for the MCAT or DAT in the summer

Students will not graduate with co-op designation <https://www.calendar.ubc.ca/vancouver/index.cfm?tree=4,228,547,732>

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study	<i>(Summer off)</i>
3	Study	Study	MICB 322/323 OR MCAT/DAT/OAT
4	Work	Work	Work
5	Study	Study	

Application process *NEW*



Apply for Co-op

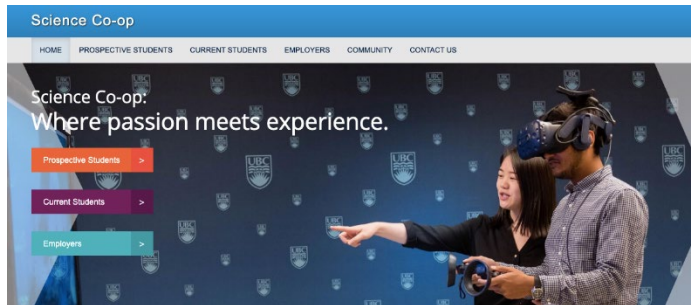


<https://sciencecoop.ubc.ca/>

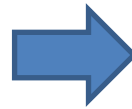


Application Deadline: 11:59pm Jan 20th 2025

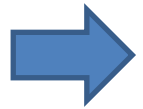
<https://sciencecoop.ubc.ca/>



Visit our website

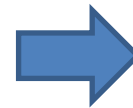


Prospective Students>choose
program



Application Deadlines

Apply in Year	Application Deadline Date
2	Monday, March 2, 2020
3	Tuesday, October 1, 2019



[Apply to Science Co-op Now](#)

We'll run you through the application requirements, and then you'll be prompted to create an account in SCOPE, the UBC Science Co-op Information System.

[Application Requirements](#)

Apply!

Apply

Create an Account and Apply



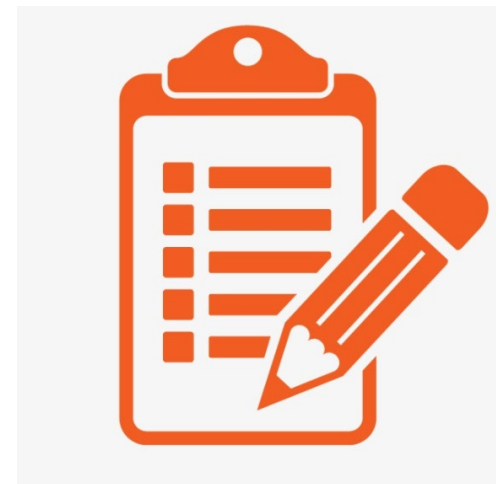
Create an account in SCOPE

SCOPE application


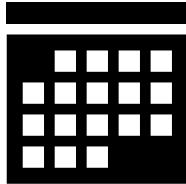
1. Fill out online co-op application on **SCOPE** – 15 questions
 - a. Tell us why you're interested in co-op
 - b. Tell us what you hope to gain from co-op

2. **OPTIONAL** Upload your resume and include:
 - Relevant employment history
 - Extracurricular activities
 - Volunteer experience

Apply for Co-op



Intake process (NEW)

- Candidates who **meet our minimum requirements** will be invited participate in **co-op workshops as part of the intake process**
- **Notification is via email only** 
- **Workshops & tutorials will occur Jan – April 2025** and provide training & practice on resumes, cover letters, interview skills, co-op requirements → **this is your intake interview process**
- **Co-op program invitations sent out late March 2025** 
- Accepted students will have to pay the **workshop fee before May 2025**



Co-op Training → your 'interview process'

Workshop topic	Date and Time (<i>tentative</i>)	Format & Location (<i>TBC</i>)
Orientation	Thurs Jan 30 3:30-5:00pm	In-person, BUCH B318
Resumes	Thurs Feb 6 3:30-5:00pm	In-person, BUCH B318
Resume tutorials	Week of Feb 10, time TBD	Virtual
Cover Letters	Thurs Feb 20 3:30-5:00pm	In-person, BUCH B318
Cover letter Tutorials	Week of Feb 24 time TBD	Virtual
Interview Skills & Job Search	Thurs March 6 3:30-5:00pm	In-person, BUCH B318
Interview tutorials	Week of March 10– time TBD	Virtual
Self-Developed Job Search, Networking & LinkedIn	Thurs March 27 3:30-5:00pm	In-person, BUCH B318
Co-op intake process finalized and offers sent	Week of March 31	EMAIL
SCOPE Job Search, Co-op Logistics	Thurs April 3 3:30-5:00pm	In-person, BUCH B318
Transition to the workplace & Work term Requirements	Thurs April 10 3:30-5:00pm	In-person, BUCH B318
Bullying, Harassment and Discrimination	Date TBD	remote

Minimum Program Requirements

UBC Science Co-op



- Must apply **before the application deadline**
- Must have a minimum of **B- average**
- Must be a **full-time UBC student**
- Must be in **good academic standing**
- Must demonstrate **good communication skills** and a **mature, responsible attitude**
- Must demonstrate **leadership, teamwork** and **time management**
- Must demonstrate **interest in your chosen field**

Program Commitments

Time Commitments

- Weekly “co-op training” (Jan 30 2025– April 10 2025) – 8 workshops & 3 group tutorials

Fees

- One Time Co-op workshop fee: \$277.25* Co-op work term fee: \$854.75* per term (4x)
 - Total cost of program: \$3696.25 (but you are earning a wage!)
 - *2024/25 fees shown - fees are subject to change – please check the website for current information
- Salary ranges (monthly, 2023 data):
 - LFSC: \$2500 - \$7290 (average \$3180/month)
 - CPSC: \$3930- \$9500 (average \$4453/month)

<https://sciencecoop.ubc.ca/employers/salaries>

Co-op FAQ

Does a student require previous experience to be eligible for the Co-op program?

- No. Many employers will hire students without having any previous experience.

Should I apply to Co-op now, or in the Fall?

- **Apply now** if you are in **2nd year** for maximal flexibility of co-op schedule
- **Apply now** if you are **3rd year** (almost your last chance!)

Can a student apply to Co-op, and to Pharmacy, Medicine, etc.?

- Yes...it is sometimes better to apply to more programs on campus than less.

What are my options if I'm not a MBIM major?

- What is your major? Other co-op program options are available: BIOL, BIOC, COGS, BIOPHYSICS, CHEM, INS, etc.)

What if I'm a Combined Major?

- You can apply to co-op as a MBIM student, a CPSC student, or combined majors student (each program have different deadlines).

Co-op FAQ

Do I have to accept a spot in the Co-op program if I apply and am offered a spot?

- No – you will learn more about the program during the application process and can change your mind before you ‘officially accept’ a spot, if offered

Can a student drop out of the Co-op program if already accepted?

- Yes, but once you accept you must pay the workshop fee.
- If you have accepted a Co-op job offer or are on a co-op work term, you are committed to finishing the work term with that employer unless there are circumstances such as a health emergency, safety concern, bullying, harassment or discrimination

Does a Work Learn position count as a co-op work term?

- No, co-op work terms must be full time

Does a NSERC USRA summer position count as co-op?

- Yes, a research position that is funded by an NSERC USRA can count as a co-op position (after you have been accepted to the co-op program).

Do I have to accept a job if I am offered one?

- **No- students are in the ‘driver’s seat’.** Students only apply to positions that they would like to apply to, and aren’t obligated to accept a job if it’s not a good fit.

Can’t a student find experience on their own?

- A student may be able to; however it is not easy...a lot of employers only what to hire Co-op students, plus the Co-op Business Development Team has a database of over 5,000 employers...essentially, we are able to offer students the chance to apply to a lot of opportunities that generally students cannot acquire through their own efforts!

Can Co-op be combined with going on Exchange (Go Global)?

- Yes! We also have opportunities for international experiences in Singapore, Germany and Japan (and others!) **when UBC is supporting international programs (during non-pandemic times)**

I am going into Medicine!

- Have you been accepted already? Always have a back-up plan – getting into medicine is not guaranteed. What is your plan if you don’t get into medicine and you don’t have any experience?

Is there a cost to Co-op?

- Yes, UBC administers a “work-term” fee for each 4 month job placement; however, if a student does not acquire a placement, then there is no fee for the student to pay.
- Every Co-op placement is a paid position, so students generally recoup the work-term fee that UBC charges in their first month of their Co-op placement.

If there is fee for Co-op, then what are the benefits of Co-op?

1. Training on: types of jobs/career paths, professional resume and cover letter, interview skills, how to successfully transition to a professional workplace
2. Access to a large database of opportunities not available to non-Co-op students
3. Coordinator and program that guides you through your first experiences in a professional work setting
4. Full-time student status enables you to keep UPASS, student housing, interest-free loan status while in Co-op
5. Skill acquisition (hard & soft skills), network development and expansion, paid work experience
6. Local, national, and global opportunities

Is Co-op worth it?

- **Yes! Yes! Yes!** And here are the reasons why...
 - **Co-op students become adept at searching, applying, and interviewing for positions.** Co-op is a fantastic opportunity to develop these skills and receive professional guidance along the way.
 - Co-op students achieve **greater levels of success, acquire better opportunities, and higher pay** after graduation.
 - Getting experience during your undergraduate experience **will set you apart** from everyone else with just a degree and no experience.

Questions?

Barbara Seredick

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