

UBC Science Co-op

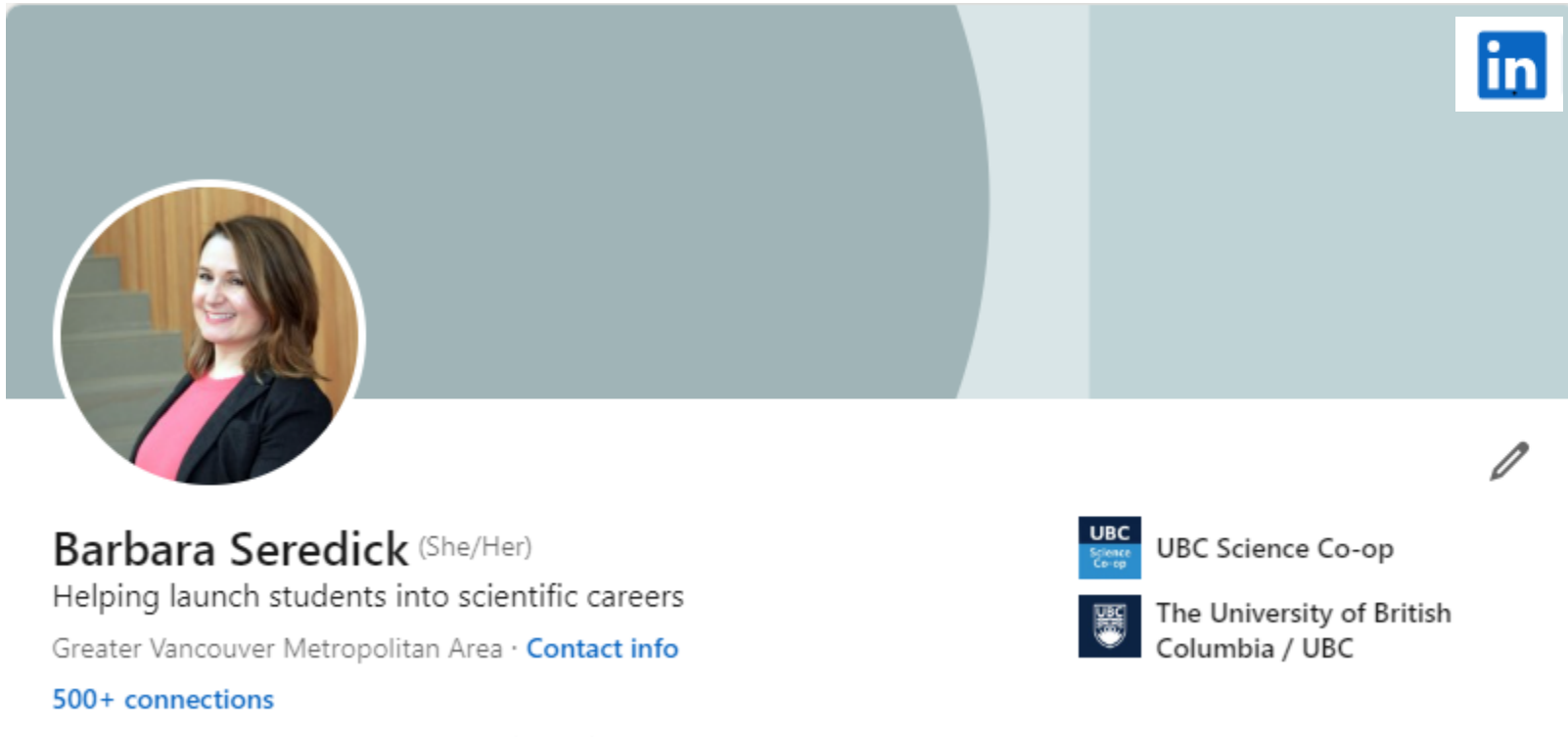


LIFE SCIENCES CO-OP

Microbiology and Immunology (MBIM) Information Session Jan 2024



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 demonstrate that you've gained the skills employers expect you to have before graduation?

Demonstrate (dem•on •strate):

1. give a practical exhibition and explanation of (how a machine, skill, or craft works or is performed).

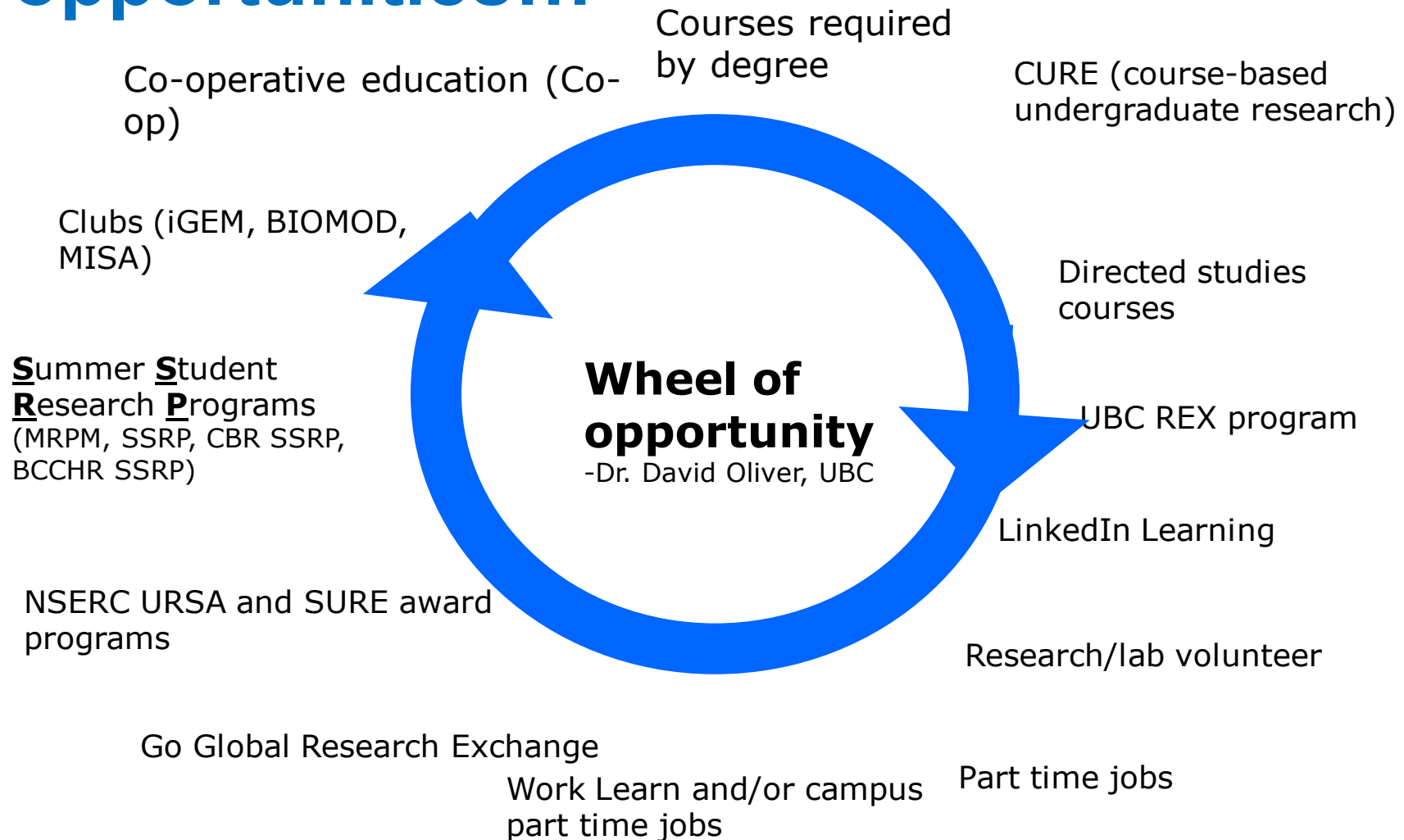
"computerized design methods will be demonstrated"

2. clearly show the existence or truth of (something) by giving proof or evidence.

"their shameful silence demonstrates their ineptitude"



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

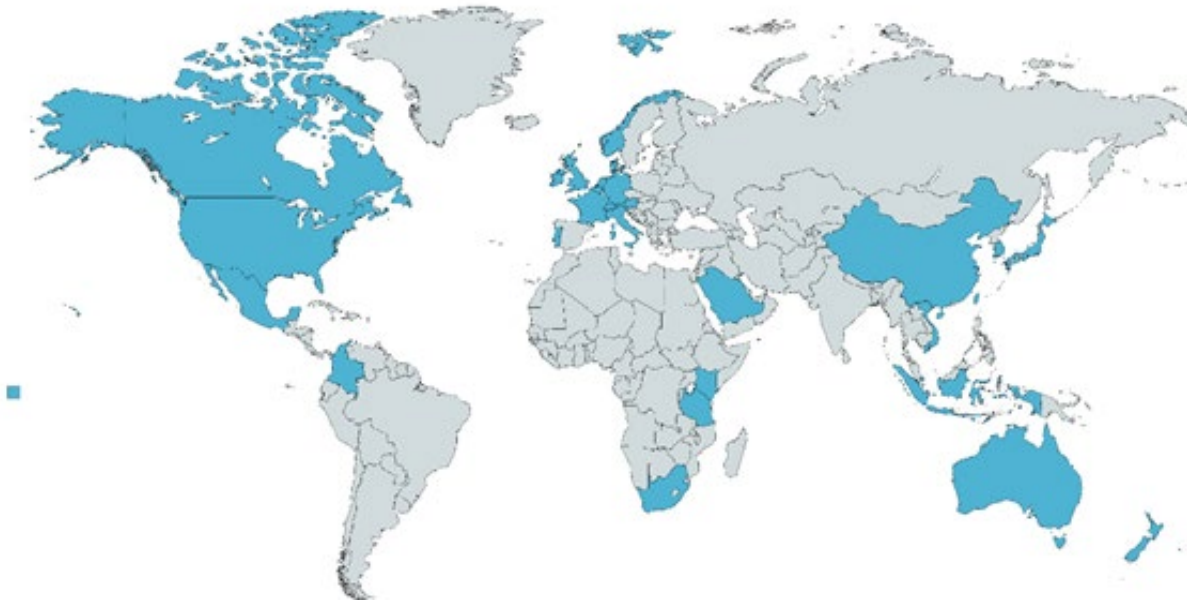
Go Global Research Exchange

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 types of work experience/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

2900 +

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 its 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.

team

Life Sciences Co-op has an amazing staff of **Coordinators**, **Admin**, and **Business Development** to help students throughout their Co-op journey.

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

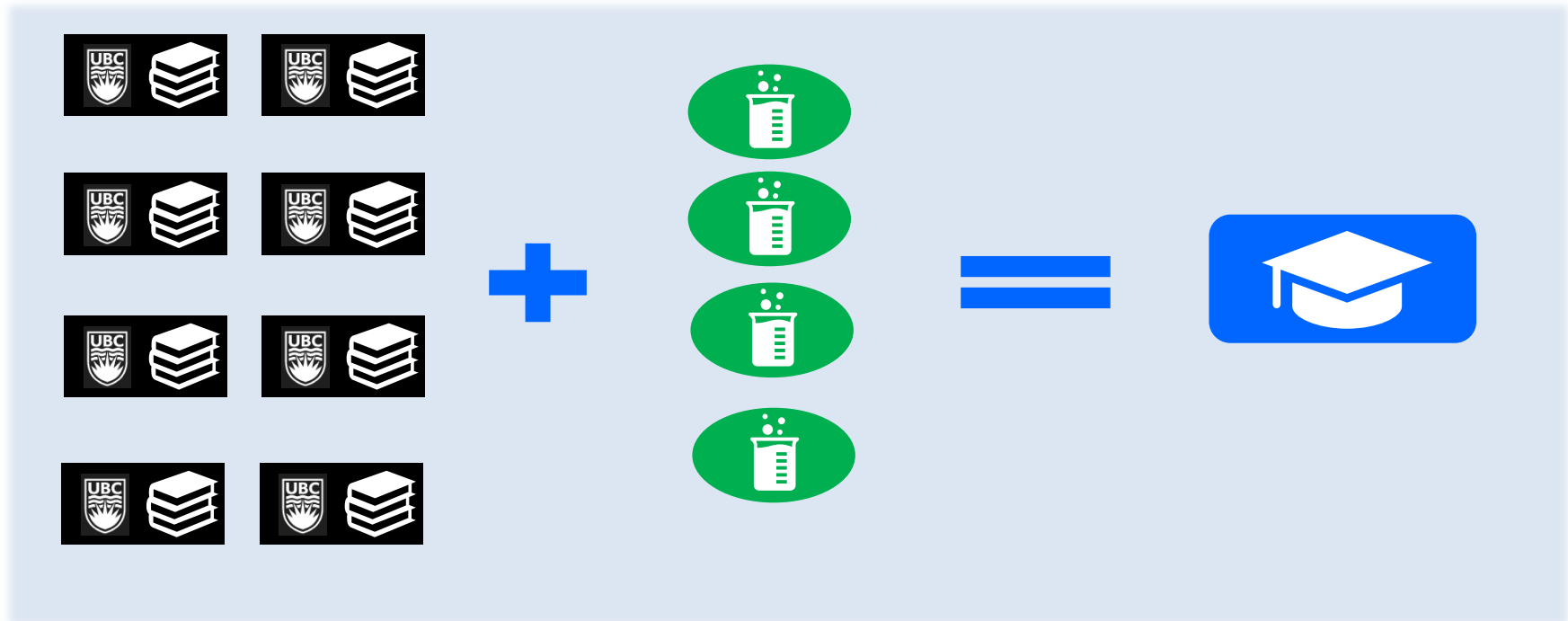
One of the most profound effects of co-op can be seen by **comparing my academic average before and after my work term.** I better understand the application of my studies, which in turn motivates me to excel in my classes. – Jung-Bahadur Singh Kandola, Biology

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

How does it work?

Participate in **Co-op training** (Workshops) & **job search**

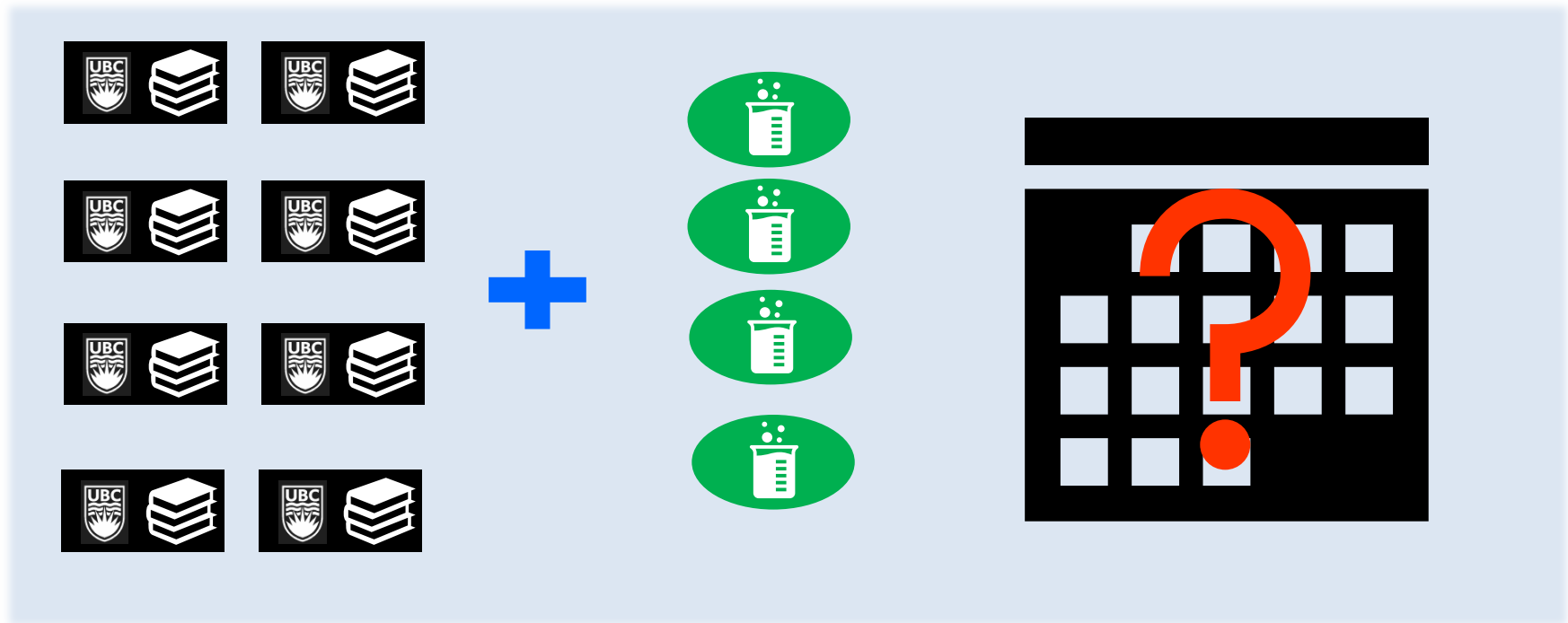
Compete four 4-month positions (work terms) to graduate with the **Co-op distinction**



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

Program Timing

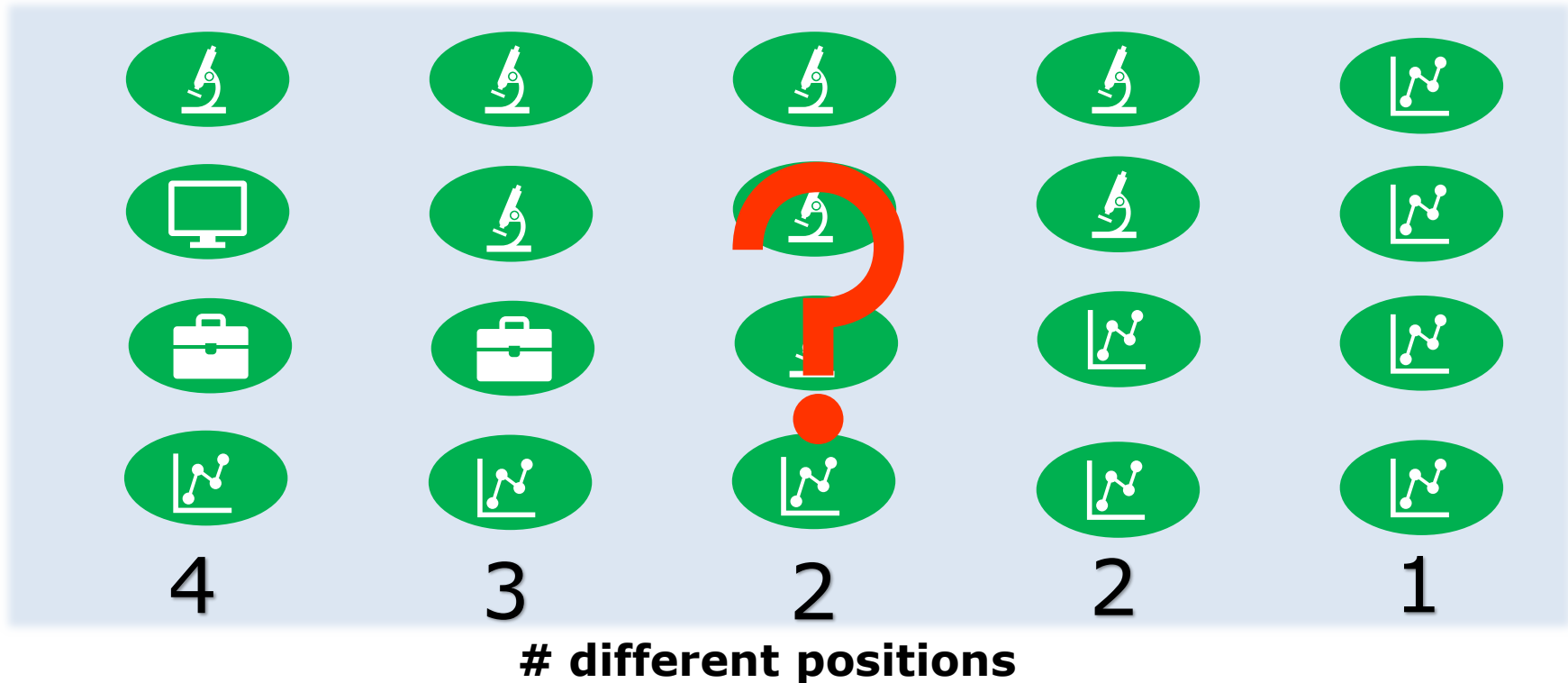
WHEN the work terms happen depends on your “Co-op schedule”



→ **Different schedules are available based on when you are scheduled to take core MBIM lab classes and your other goals**

Program Timing

How many different positions you work in depends on what jobs you apply to and what is available when you are looking



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

When to apply?

2nd year: NOW

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

3rd year: Fall term

- 2 schedule options available to you

Schedules – 2nd year SPRING application (Schedule “A”)

Options A, B, and C are available to 2nd year students applying in the spring term

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study APPLY, Co-op Workshops	(Summer off/MCAT/DAT)
3	Study Apply to positions	Work	Work
4	Study	Study	Work
5	Work	Study & Graduate!	

Schedules – available to spring term applicants and fall term 3rd year applicants (Schedule “B”)

Schedule compatible with Honor's programs or full year courses (example: CAPS 301)

Year	Fall (Sept)	Winter (Jan)	Summer (May)
2	Study	Study	(Summer off/MCAT/DAT)
3	Study APPLY + Co-op Workshops	Study Apply to positions	Work
4	Work	Work	Work
5	Study	Study & Graduate!	

Schedules – available to spring term applicants and fall

term 3rd year applicants (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	(Summer off)
3	Study APPLY and Co-op Workshops	Study	MICB 322/323 OR MCAT/DAT/OAT Apply to positions
4	Work	Work	Work
5	Study	Study & Graduate!	

Program Commitments

Other Time Commitments

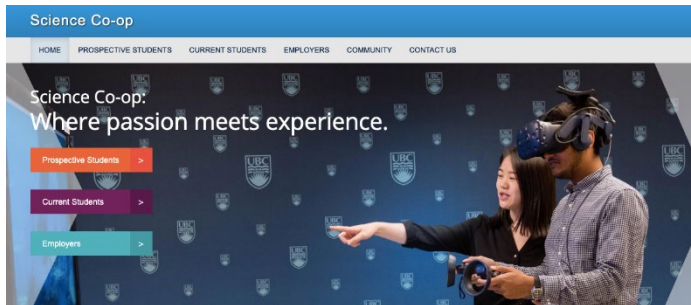
- Application process now includes 10 hrs of “co-op training” (Feb, March 2024) as part of your application process
- Looking for positions usually takes 3-8 hrs/week until you get a position

Fees

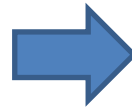
- One Time Co-op workshop fee: \$272* Co-op work term fee: \$838* per term (4x)
 - Total cost of program: \$3624 (but you are earning a wage!)
 - *2023/24 fees shown - fees are subject to change – please check the website for current information
- Average salary stats found on our website:
<https://sciencecoop.ubc.ca/sites/sciencecoop.ubc.ca/files/Salary%20Stats%202018.pdf>

Application Deadline: 11:59pm Feb 6th 2024 (EARLIER THIS YEAR)

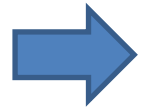
<https://sciencecoop.ubc.ca/>



Visit our website



Prospective Students>choose
program



Apply

Create an Account and Apply



Create an account in SCOPE

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!

Application Requirements

- 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**

Application process

Fill out online application



Upload resume
(& transcripts
from other
institution)



If offered conditional acceptance:

Attend co-op workshops



If accepted,
confirm co-op
program

Apply for Co-op



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Microbiology & Immunology

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Microbiology & Immunology / Students / Undergraduate / Application Processes / Application Forms

Undergraduate ▾

- General Information >
- Specializations >
- Course Descriptions >
- Course Outlines >
- Program Advising >
- BIOL 112 Registration Information >
- Application Processes ▾

APPLICATION FORMS

Applications will be accepted April 25th - May 20th (11:59 pm), 2019.

For students using second year courses in the application:

- MICB 322/323 and for MBIM major and honours programs
- MICB 322/323 and Combined CPSC-MBIM major and honours programs
- MICB 322/323 and Combined MBIM-OCGY major programs

For students using relevant third year courses in the application:

- Application form for MICB 322/323



SCOPE application


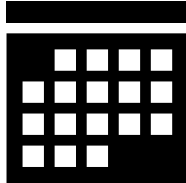
1. Fill out online co-op application on **SCOPE**
 - a. Tell us why you're interested in co-op
 - b. Tell us what you hope to gain from co-op

2. 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 in Feb-March 2024** 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 April 2024** 
- Accepted students will have to pay the **workshop fee before April 19th 2024**



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**

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).

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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