LIFE SCIENCES CO-OP

Microbiology and Immunology (MBIM) Information Session Fall 2023
Who am I?

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Helping launch students into scientific careers
Greater Vancouver Metropolitan Area · Contact info
500+ connections

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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**

Experience working with animals

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

Experience in **data visualization** and computer programming

Experience in design and execution of experiments

Understanding of MATLAB

Experience in **CRISPR-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**
- Good **organizational skills**
- Excellent **documentation and data management skills**
- Ability to **meet deadlines**
- **Detail-oriented** and good **time management skills**
- Strong **analytical skills**, including **data analysis and troubleshooting**
- Experience **communicating results in presentation format**
- **Excellent verbal and written communication skills**
- Experience **writing technical documents**
- **Able to proactively collaborate**
- Ability to work in a **fast-paced and dynamic environment**
- Good **organizational skills**
- Excellent **documentation and data management skills**
- Ability to **critically read and understand scientific literature**
- Capacity to **work independently** with little supervision
- Organized and able to **prioritize** effectively
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…

Wheel of opportunity
- Dr. David Oliver, UBC

Courses required by degree

- Co-operative education (Co-op)
- Clubs (iGEM, BIOMOD, MISA)
- Summer Student Research Programs (MRPM, SSRP, CBR SSRP, BCCHR SSRP)
- NSERC URSA and SURE award programs
- Go Global Research Exchange

Directed studies courses
- CURE (course-based undergraduate research)
- UBC REX program
- LinkedIn Learning

Part time jobs

Work Learn and/or campus part time jobs
Undergraduate skill building opportunities…

Co-operative education (Co-op)

Courses required by degree

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Directed studies courses

UBC REX program

LinkedIn Learning

Research/lab volunteer

Part time jobs

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

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Work Learn and/or campus 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 BiInnovations (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
Science students currently active in the Co-op program.

Life Sciences students working every term.

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

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

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

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”

→ increases time to complete degree by 1 year BUT YOU GRADUATE WITH EXPERIENCE!
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 SPRING
  • 3 different schedules available to you dependent on timing of lab courses, MCAT/DAT etc.

3rd year: NOW
  • 2 schedule options available to you
## Schedules – 3rd year FALL application (Schedule “B”)

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall (Sept)</th>
<th>Winter (Jan)</th>
<th>Summer (May)</th>
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<tbody>
<tr>
<td>2</td>
<td>Study</td>
<td>Study</td>
<td><em>(Summer off/MCAT/DAT)</em></td>
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<tr>
<td>3</td>
<td>Study APPLY!</td>
<td>Study</td>
<td>Work</td>
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<tr>
<td></td>
<td></td>
<td>Co-op workshops Apply to positions</td>
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<tr>
<td>4</td>
<td>Work</td>
<td>Work</td>
<td>Work</td>
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<tr>
<td>5</td>
<td>Study</td>
<td>Study &amp; Graduate!</td>
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Schedules – 2\textsuperscript{nd} year FALL application *NEW*

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<tr>
<td>2</td>
<td>Study APPLY!</td>
<td>Study Co-op Workshops</td>
<td>(Summer off/MCAT/DAT) Apply to positions</td>
</tr>
<tr>
<td>3</td>
<td>Work</td>
<td>Work</td>
<td>Work</td>
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<tr>
<td>4</td>
<td>Study</td>
<td>Study Apply to positions</td>
<td>Work</td>
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Schedules – 3rd year FALL application (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

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<td>(Summer off)</td>
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<tr>
<td>3</td>
<td>Study APPLY!</td>
<td>Study Co-op workshops</td>
<td>MICB 322/323 OR MCAT/DAT/OAT Apply to positions</td>
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<tr>
<td>4</td>
<td>Work</td>
<td>Work</td>
<td>Work</td>
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<tr>
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<td>Study &amp; Graduate!</td>
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# Schedules – 2\textsuperscript{nd} year SPRING application (Schedule “A”)

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

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Program Commitments

Other Time Commitments

- 10 hrs of “co-op training” (Nov 2023 – Jan 2024, dates TBD)
- At least 2 one-on-one meetings with me Nov 2023- Jan 2024 (45 min each)

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 Oct 3rd 2023

Visit our website [https://sciencecoop.ubc.ca/](https://sciencecoop.ubc.ca/)

Prospective Students > choose program

Apply

Create an account in SCOPE

Create an account in SCOPE
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

1. Fill out online application
2. Upload resume (& transcripts from other institution)
3. Attend intake interview with coordinator
4. If accepted, confirm co-op program

Apply for Co-op
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
Intake interview

- Candidates who **meet our minimum requirements** will be **invited** for an interview to assess their suitability to the program.

- Notification is via email only.

- Interviews will occur in October.

- Interviews are ~15-20 minutes in length.

- Students are asked **behavioural, situational** and **technical** questions.

- **Co-op program invitations sent** out October.
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 spring?
• Apply now if you are in 2nd year or 3rd year
• You can apply in the spring when you are in 2nd year as well, but you won’t have the ‘fall start 2nd year application’ schedule open to you

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

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?
Co-op FAQ

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?

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