

2014 Vancouver Summer Program in Medicine



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

Program Overview

The **Vancouver Summer Program (VSP) in Medicine** is a 4-week academic program offered by the Faculty of Medicine at The University of British Columbia (UBC) for undergraduate students from international universities

The VSP provides the opportunity to take 2 academic courses while learning about Canadian medical practices and culture



Program Benefits

Learn about Canadian medical practices and culture

Study at a world-renowned medical school and university

Live in beautiful Vancouver, British Columbia while earning academic credit

Improve your English skills

Meet Canadian and other students from around the world



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

About Vancouver

Vancouver is located in the southwest corner of British Columbia – one of Canada's 10 provinces and 3 territories

40 minutes away from the United States border

Population 2.1 million



About Vancouver

Host to the 2010 Winter Olympics

Consistently rated as one of the best places to live in the world in terms of quality of life, opportunities, cultural diversity, political stability, and a healthy environment

Canada is a safe country with a stable economy, an excellent health care system and social services



About UBC

Canada's education ranks amongst the
best in the world

UBC is Canada's third largest university
and a leader in research

18 faculties and 13 schools offering a
wide range of study options



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

About UBC

57,706 students (Vancouver: 49,372; Okanagan: 8,334)

8,440 international students from 149 countries

11,836 degrees granted

275,000 alumni in 120 countries

10,186 faculty and 6,716 staff

\$2 billion annual operating budget

\$519 million per year in research funding for 7,990 projects

153 companies spun off from UBC research

\$10 billion in economic impact

www.ubc.ca/facts



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

About UBC

The UBC campus is a 30-minute bus ride from downtown Vancouver

The 400+ hectare campus is surrounded by the Pacific Ocean with snow-capped mountains in the distance



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

The Faculty of Medicine

Times Higher Education World University Rankings:

27 in Clinical, Pre-Clinical, & Health
20 (#1 in Canada) in Life Sciences

QS World University Rankings:

31 in Medicine
24 in Biological Sciences

Faculty are internationally recognized authorities in HIV/AIDS treatment, genomics, and infectious diseases, and have received prestigious national, and international awards, including the Nobel Prize and the Order of Canada.



The Faculty of Medicine

1 Medical school in British Columbia with **4** campuses

19 Academic Departments & **2** Schools

19 Research Centres and Institutes

11 Academic Programs

4,213 Learners: 1,212 undergraduate students, 1,354 graduate students, 1,169 postgraduate medical residents, 269 postdoctoral fellows, and 209 clinical fellows

655 Full-time faculty members

5,477 Clinical faculty

14,102 Alumni

\$296 million annually in research funding

48 out of 161 UBC spin-off companies originating in FoM



Course Dates

Arrive in Vancouver: **July 19**

Course Dates: **July 21-August 15**

Depart Vancouver: **August 19**

(Customized packages can be created for groups of 24+ and scheduled for any 4 week period between mid-May and mid-August)



Course Deadlines

March 21: Participant Registration Deadline

May 21: Tuition Payment Deadline

June 19: Student flights & roommate request deadline

August 26: Instructors send grades to Faculties



Course Packages

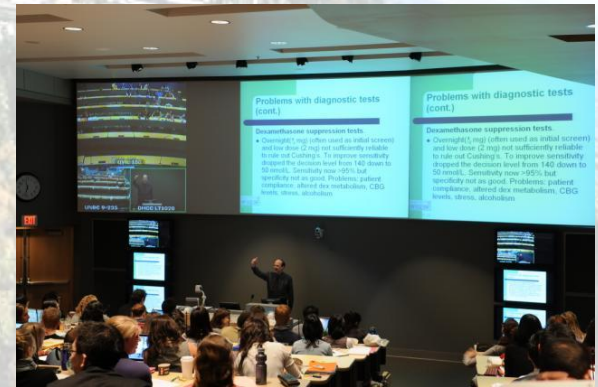
Package: 2 courses

Class time: ~39 hours per course

Classes: interactive, group work, class discussions

Evaluation: assignments, group projects, papers, exams, and participation marks

Course credit: granted at discretion of student's home university



Course Packages

Class size: 24 participants minimum

(Groups of less than 24 participants will join participants from other universities to study the same package)

Eligibility: 1st and 2nd year undergraduate students studying medicine or related sciences (e.g. biology, pharmacy, general sciences) at international institutions.

Participants must have a strong background in English.



Accommodation

Located on the UBC campus with easy access to classes, libraries, sport facilities, and transportation



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

FACULTY OF MEDICINE

Accommodation

Shared suites

- 4 single bedrooms in each suite
- In-suite bathroom (with shower and toilet)
- Lounge
- Fully equipped kitchenette
- Cleaning services

High-speed wired internet included



A Typical Day

Classes are held 4-5 days a week with one day or one afternoon a week free.

- 9:30 – 12:30 morning class
- 12:30 – 13:30 lunch break
- 13:30 – 16:30 afternoon class

Some evening activities are included in the program (movie nights, sports night).

Weekends are free, with optional sightseeing trips for an additional fee.



Social Activities

City Tour

Various activities such as sporting events, museum visits, bike riding

Sightseeing trips and weekends in Whistler and on Vancouver Island



Course Descriptions



Dr. Ran Goldman,
Course Director

Medicine Course 1: Introduction to Clinical Research in the Sciences

This course provides a window on how clinical research is conducted in the medical sciences. Research methodologies, the research process, ethical considerations and practical tips for conducting high-yield, evidence-driven research with patients will all be presented and discussed.

The 40 hour course includes lectures, workshops and hands-on mentored individual research projects by students that will be presented at the end of the course.



Course Descriptions

Medicine Course 1: Introduction to Clinical Research in the Sciences

A wide variety of health care providers and medical educators will participate in the course and provide examples of research conducted at UBC and other academic institutions.

Engaging speakers, visits to clinical research facilities and effective mentorship techniques will provide students with a once-in-a-lifetime opportunity to take part in the most advanced learning in basic clinical research.

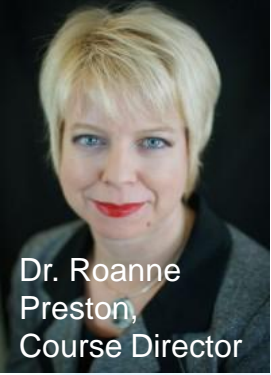


Day 1	Day 2	Day 3	Day 4	Day 5
9:30 – 12:30	9:30 – 12:30	9:30 – 12:30	9:30 – 12:30	9:30 – 12:30
Introduction to course, material distribution	LECTURE : Medical search – from PubMed to Google Scholar	LECTURE : Random Controlled Trial (RCT)	LECTURE : Conducting Surveys	LECTURE : Observational Studies
UBC/BC Children’s Campus orientation	WORKSHOP: Group work on searching evidence for clinical evidence-based questions	LECTURE : Qualitative Research	WORKSHOP: Designing a survey study for acute and chronic clinical settings – in person, over the phone, electronically	WORKSHOP: Implementing research in challenging clinical environment
LECTURE : Introduction to research methodology		WORKSHOP: Using Quality Improvement techniques to answer challenging clinical questions	Random Controlled Trial (RCT)	
13:30 – 16:30	13:30 – 16:30	13:30 – 16:30	13:30 – 16:30	13:30 – 16:30
Visit to the Research Institute	LECTURE : Databases Research to Measure Health Outcomes	*** FREE AFTERNOON ***	“Personal Project Research Clinic” – review of projects and mentorship session	Self-work on “Personal Project” Professors available for Q&A
Introduction to “Personal Project” and project distribution	LECTURE : Clinical Medical Research and Social Media			
Welcome celebration at BC Children’s Hospital				



Day 6	Day 7	Day 8	Day 9	Day 10
9:30 – 12:30	9:30 – 12:30	9:30 – 12:30	9:30 – 12:30	9:30 – 12:30
LECTURE : Statistics 101 – Basics of Clinical Research Stats	LECTURE : Translational Research – the future of clinical medical research	LECTURE : Ethics Seminar – key ethical aspects of clinical research and human research	LECTURE : Genetic Research in the Clinical Setting, Biobanks and Future Implementations	Presentations of projects by students – Course celebration
WORKSHOP: Statistical software and practical considerations	LECTURE : Measurement, Bias and Confounding	WORKSHOP: Ethical Cases – Bioethics and Humanity	WORKSHOP: Putting it all together : Presenting and Writing Your Research	
13:30 – 16:30	13:30 – 16:30	13:30 – 16:30	13:30 – 16:30	13:30 – 16:30
LECTURE : Measurement, Bias and Confounding	LECTURE: Diagnostic Tests, ROC Curve and Practical Clinical Research	*** FREE AFTERNOON ***	“Personal Project Research Clinic” – review of projects and mentorship session	
LECTURE : Systematic Reviews & Meta Analysis	“Personal Project Research Clinic” – review of projects and mentorship session			





Dr. Roanne
Preston,
Course Director

Course Descriptions



Dr. Catherine
C Y Pang,
Course Director

Medicine Course 2: *Pharmacology of Everyday Life*

This course will provide an overview of the principles of pharmacology and anesthesiology. Students will gain insight into how drugs produce both desired and adverse effects through exploration of their underlying mechanisms of action on the body. Through historical and present-day analysis of selected anesthetic agents and prescription, over-the-counter, and social drugs, students will gain an understanding and appreciation of medicines directly applicable to their everyday lives.

Course objectives will be met through a combination of lectures, small group discussion and tutorial sessions, as well as hands-on *in vitro* laboratory experimentation.



Dr. Andrew Horne,
Lead Instructor



Pharmacology of Everyday Life - Outline

	Subjects Covered
Day 1	Introduction to Pharmacology -Basic Terminology; Qualitative and Quantitative Pharmacodynamics <i>in vitro</i> pharmacology laboratory (Guinea Pig Ileum)
Day 2	Introduction to Pharmacology -Qualitative and Quantitative Pharmacokinetics In Class/Take Home Assignments: -Guinea Pig Ileum Lab Analysis Worksheet -Quantitative Pharmacokinetics Assignment
Day 3	Autonomic Pharmacology -General principles of synaptic transmission -The Parasympathetic nervous system (PNS) and Sympathetic nervous system (SNS) -Basic and clinical pharmacology of the PNS/SNS <i>in vivo</i> pharmacology laboratory demonstration (Autonomic Pharmacology of the Anesthetized Rat)
Day 4	Systems Pharmacology -Cardiovascular Pharmacology -Neuropharmacology -Gastrointestinal Pharmacology Case Study/Tutorial Assignment



Pharmacology of Everyday Life - Outline

	Subjects Covered
Day 5	Quiz: Autonomic & Systems Pharmacology Social and Over-The-Counter Drugs <ul style="list-style-type: none">-How do Drugs Fit in Everyday Life?-The Pharmacology of Caffeine and Ethanol-Anti-Histamines: Drugs with Dual Purposes Case Study/Tutorial Assignment
Day 6	The Pharmacology of Pain Management/Analgesia Anesthesia <ul style="list-style-type: none">-What is an Anesthetic?-History of Anesthesia-Local and General Anesthesia
Day 7	Quiz: Analgesia & Anesthesia The Pharmacology of Antibiotics <ul style="list-style-type: none">-How are Antibiotics selective for bacteria?-Overview of the major mechanisms of action Course Review/Q&A/Free Study Time
Day 8	Final Exam Course Wrap-up/Celebration/Social



2014 Program Fee

Package per student is **\$3850 Canadian dollars**. Includes:

- Tuition
- Course materials
- Accommodation (31 nights)
- Medical insurance
- Airport transfer (for group arrivals/departures)
- City tour
- Orientation and farewell events
- Some social activities (additional fees for optional trips)



Contacts

Ms. Winty Cheung

Executive Director

UBC Asia Pacific Regional Office, Hong Kong

Winty.cheung@apro.ubc.ca

852.2111.4401

Mr. Michael Rogers/ Ms. Teresa Sham (on leave)

International Short Study Programs Manager

Office of the Provost & Vice President Academic

University of British Columbia, Vancouver

Michael.rogers@ubc.ca

1.604.822.0563

General VSP Website:

www.vpacademic.ubc.ca/ubc-vancouver-summer-programs

VSP in Medicine:

med.ubc.ca/education/vancouver-summer-program

