

# UBC Statistics Graduate Programs

Virtual Info Session

**November 2024**



# Session organization

- **Panelists introduction**
- **Why UBC Statistics? (5 minutes)**
- **Introduction of the Statistics MSc, PhD and PhD Track Programs (10 minutes)**
- **Admission instructions and tips (5 minutes)**
- **Questions and answers (35 minutes)**



## Today's panelists

- **Alexandre Bouchard-Côté**, Professor
- **Gian Carlo Diluvi**, PhD Candidate
- **Natalia Nolde**, Professor
- **Mairéad Roche**, Graduate Programs Manager



# Why UBC Statistics?

## Graduate programs key benefits:

- Fully funded PhD, PhD Track **and** MSc programs
- One-on-one mentorship by world-leading faculty members
- Interact with amazing fellow graduate students
- Supportive work environment, e.g., a graduate student parental leave
- Modern and central facilities in a beautiful campus



# PhD Program Overview



# PhD program at a glance

## ➤ Year 1

- ❖ PhD qualifying course
- ❖ Course work
- ❖ Finding a research supervisor and starting on research

## ➤ Year 2

- ❖ Course work completed
- ❖ Research: work towards the PhD proposal
- ❖ Comprehensive exam

## ➤ Years 3-4

- ❖ Research

## ➤ Years 4-5

- ❖ Submission of PhD dissertation and PhD defence



# PhD qualifying course

## ➤ Objectives

- ❖ To learn about research at the beginning of the PhD program
  - ✓ critically read published research
  - ✓ start thinking about a thesis topic
  - ✓ make an informed decision on a PhD thesis supervisor
- ❖ To work with faculty members of your choice (one per report) whose research interests you
- ❖ To become comfortable with scientific writing and computing
- ❖ To sharpen time management skills in a research environment



# PhD program course requirements



## ➤ Consulting sequence

- ❖ STAT 550: Techniques of Statistical Consulting
- ❖ STAT 551: Statistical Consulting Practicum

## ➤ Elective courses (9 credits)

- ❖ the department offers a range of foundational full term (3 credits) courses as well as specialized half-term (1.5 credit) topic courses
- ❖ you can also take graduate courses from other departments (e.g., from Computer Science or Math departments)



# MSc Program Overview



# MSc program: options & timeline

## ➤ MSc program options

- ❖ **Two concentrations: **Statistics** and **Biostatistics****
  - selected at the time of application
- ❖ **Thesis:** 6 credits + 24 credits of course work
- ❖ **Project:** 3 credits + 27 credits of course work
- ❖ **Co-op:** 8 months paid internship + 30 credits of course work
- ❖ **PhD track option** (guaranteed transfer to PhD program at the end of year 1 subject to successful completion of requirements)

## ➤ Duration

- ❖ MSc students are expected to finish within **18 months** (Sep 2025 – Apr 2027)
- ❖ **Exceptions:** thesis work may take longer; co-op is combined with a project/thesis



# MSc course requirements

- ❖ Statistical Inference sequence (2 courses)
- ❖ Probability
- ❖ Applied Statistics courses (e.g., GLM)
- ❖ Statistical Computing
- ❖ Consulting sequence (2 courses)
  
- ❖ **Electives**
  - Topics courses (reflect research interests of faculty, vary from year to year)
  - Courses from other departments
  - Up to 6 credits of undergraduate courses at 300 and 400 level



# UBC Statistics Graduate Programs

Admission Instruction and Tips

November 2024



# Key dates

- **PhD** application deadline:
  - For **you: December 1<sup>st</sup>, 2024**
  - For your reference letter writers: December 15<sup>th</sup>, 2024
  
- **MSc and PhD Track** application deadline:
  - For **you: January 6<sup>th</sup>, 2025**
  - For your reference letter writers: January 20<sup>th</sup>, 2025



# Study Permit Updates

- September 18, 2024, Canada announced changes to the temporary residence programs
- UBC and UBC Statistics are supportive to international students
- As of 2025, MSc and PhD students require a Provincial Attestation Letter
  - UBC is confident that international students who accept a UBC graduate program offer will receive a supporting provincial attestation letter (PAL) for their study permit application
  - <https://www.grad.ubc.ca/study-work-permit-updates>
- MSc and PhD continue to be eligible for Post-Graduation Work Permit (PGWP) for 3 years: <https://students.ubc.ca/career/working-canada/post-graduation-work-permit>
  - Updated criteria now includes proof of language skills
- British Columbia Provincial Nominee Program
  - Pathway to Permanent Residency for our international students
  - Program is still active, with updates:
    - MSc update: one-year job offer now needed, updated language skill req.
    - PhD: no changes



# Research areas

- **Tip:** think carefully about what you would like to do in grad school
- **Explore** the department's research areas (<https://www.stat.ubc.ca/research-areas>)
  - Bayesian Statistics
  - Bioinformatics / Genomics / Genetics
  - Biostatistics
  - Data Science
  - Forest Products Stochastic Modeling Group
  - Modern Multivariate and Time Series Analysis
  - Neural Networks and Generative AI (AIMSI: <https://caida.ubc.ca/aim-si>)
  - Robust Statistics
  - Machine Learning / Statistical Learning
- Department's research spans methodology, applications, and theory



# How to approach a prospective research advisor

- Check faculty websites for openings, current projects
  - Example: CANSSI projects
- **Tip:** quality over quantity
  - Much better to send a couple thoughtful, personalized emails than mass emails
  - Mass emails will not help at all





# Statement tips

- **Tip:** develop scientific research interests
  - Do you have research experience? Explore the broader context.
  - Are you taking a course you like? Ask your instructor for pointers to current research, open problems, etc.
  - Passionate about an area of application? Search for statistical oriented papers.
  - Leverage your curiosity.
- **Tip:** search for bridges between your research interests and others'.
  - Establishing connections between fields.
  - Application of a methodology to a new area.
- **Tip:** connect your interests with experience if possible
  - Focus on recent, most important things, e.g. summer research project



# Q&A Period

