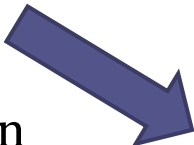Epidemiology

Dalla Lana School of Public Health

MPH in Epidemiology
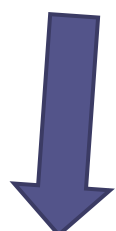
Program overview for future applicants

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Epidemiology Programs at Toronto for 40+ years: applied public health and research epidemiology

Public health or applied epidemiology

- Support and government and other agencies
- Describe and monitor health in the population
- Review and summarize evidence (expert in critical appraisal)
- Communicate evidence to many audiences

Research epidemiology

- Research skills suitable for PhD studies
- Studying causes and risk factors for disease and health.

Skills for many jobs:

- Research grant staff
- Public health epidemiologist.
- Consultant, evaluator, data specialist

Many sectors:

- Academic , government, private sector, charity or NGO

Often combined with MD or other health professional

Program Timeline
Full Time = **20 months**

Courses are ON CAMPUS
Only some remote activity
Practica usually off-campus

Term	Major activities
1. Fall (Sep-Dec) & 2. Winter (Jan-Apr)	**Required courses** ~5 courses per term
3. Spring/summer (May-Aug; Full-time work)	**First Practicum Guaranteed** - Placement database provided - Research partners, government, private **Most provide some student funding**
4. Second Fall (Sept – Dec)	More courses continue: advanced skills; breadth and depth electives
5. Second Winter (Jan-Apr)	An elective **second practicum** or electives
June convocation (most of cohort graduate together) Completed by June deadline for those applying to medicine	

What is unique compared to other MPH/MSc programs?

- Not a generalist MPH, highly specialized for epidemiology
  - Intensive quantitative research skills
  - Also applied skills for public health, government, etc.
- Preferred by many students over common MSc models
  - MSc often have few skills courses - one project
- Guaranteed practicum - often **two** completed
- Amazing location and networking opportunities
- Alum often admitted to medicine and PhD programs

Admissions

- What we look for in applicants and how we review

- What it takes to be competitive and advice for students still in undergraduate training (or with time to prepare)

- Advice for those who still have time to prepare before application

Skills of epidemiologist
are what we look for in applicants

- **Intermediate to advanced backgrounds in research methods and statistics**

- **CRITICAL thinking – not memorizing,**
  - Logical reasoning, critical reading
  - Differs from STEM training (often)
  - Advanced library skills, lots of critical reading and discussion

- **Interpersonal skills +**
  - Keep your cool and speak to the evidence
  - Empathy –Public health issues affect people - inequitably
  - Demonstrated high ethical standards and accountability

- **Communications skills +**
  - Writing, presentation skills (prior researched essays and ugrad thesis)
  - Skills and confidence to discuss and collaborate – working health professionals, government staff and politicians, general public

Choices made _within_ undergrad matter more than school

- **Must cover mix of human health and communications**

- **Honours specializations**, especially with **research-focus**
  - We look for challenging, senior-year courses - usually taken by minority of students preparing for grad school (these are often restricted access, and competitive)
    - Small-group seminar classes, writing, presentations, feedback and collaboration
    - Undergraduate thesis and earned/competitive co-op placements
    - Third and fourth year activities restricted to majors or conditional on high marks
    - BUT, we are very flexible with respect to discipline (health studies, psychology, etc.)

Ideal combinations

- Science/Health **Major** or **Specialist**
  PLUS a **Minor** in arts, humanities, or social science

- Social science or arts **Major** or **Specialist**
  PLUS a **Minor** relevant to health studies or human health and necessary quantitative training

Using final year(s) of study to develop experience that stands out

Develop COMMUNICATIONS, library skills, reading and writing

- ▫ Undergraduate thesis
- ▫ Courses in writing and literature reviews can help

Take small, seminar courses designed to develop critical thinking (any, all years)

Examples include U of Toronto "Ones" and

"One Hundreds" courses

designed to develop critical thinking and academic skills

Strong applicants have letters from professors, who know you well, and can praise your behaviour and character:

- · **Able to describe your work good habits, interpersonal skills and critical thinking**
- · **Will describe how you handled challenges, mistakes, and responded to feedback**
- · **Can describe how well you work with others (supervisors, peers, etc.)**

Many applicants have questions about statistics: eligibility vs. **competitiveness**

The on-paper minimum criteria are very general (apply to several MPH fields)

- Canadian-equivalent to 4-yr Bachelor's
- English language proficiency proof provided at time of application
- Minimum GPA
- One term in statistics (B+)

Just meeting these minimums will NOT make one competitive for epidemiology

Please also consider other programs at DLSPH or elsewhere

Statistics "aptitude and attitude"

- **Well beyond minimum to be competitive**
  - Previously, the MSc Epidemiology required TWO terms of statistics
    - U Toronto Stats 221 + 222. Expecting A- or higher.
    - Many MPH applicants completed this (or equivalent) before application
- ***Examples* of intermediate or advanced training seen in successful applicants:**
  - **YEARS of quantitative and mixed-methods research**
    - E.g., Honours specializations with research emphasis
  - **Human research designs (not only laboratory), e.g.,**
    - Experimental psych., quant. sociology; program evaluation; measurement
    - Epidemiology Courses; Critical appraisal of human health studies
  - **Intermediate to advanced quantitative skills:**
    - More STATS: multiple linear and logistic regression, Survival, GIS
    - More MATHS: calculus, probability, matrix algebra – all are useful
    - COMPUTERS: Statistical software, coding, data management

FAQ: Statistics – we cannot pre-approve your eligibility

- **<u>You</u> create the required PDF attachment and submit with your application.**
  - List **<u>ALL</u>** relevant quant courses
    - **Highlight your <u>most advanced </u>training (not only the entry-level course)**
  - Attach course syllabi or content description for ALL courses with stats, math, data analysis and research.
  - Quantitative skills should also be highlighted in letter of intent, CV, and reference letters
- Past choices and experience (courses, co-op and employed work) all show which applicants have a genuine interest in working with data and statistics.

Grades? Yes, but not just GPA

We want consistently quite-good* grades at full workload (at least most recent 2-3 years)

- **Admissions Committee members view ALL grades, in ALL years. Review is holistic (no GPA cut-off used).**
  - If your final GPA (calculated later, by admin staff) is lower than SGS minimum standard, there will be no offer.
- **Large % of top ranked applicants are Honour roll**
  - But even all As does not impress without senior seminar courses
  - Upload detailed transcripts with class size and average grade (ideally)
- **Reviewers do notice a pattern of failures: Cs*, Ds, withdrawals, and having to repeat basic pre-requisites**
  - e.g., several very basic level stats instead of more advanced courses
- **Grad school is different. It is very challenging**
  - We have a duty to admit students most likely to thrive

*We expect to see **mostly** 80% (A) We do not expect all 90s.
Grad students must get 70% in **all** courses just to pass; Cs suggest failure.

Extracurriculars, work, volunteer etc.

- **Describe <u>all</u> work and volunteer experiences**
  - **Not ONLY in health & research**
    - Experience in teaching, coaching, mentorship, leadership, accounting, even jobs with customer service expectations.
    - All work experience is opportunity to acquire relevant to SKILLS
  - **Give details – hours per week, months, years.**
    - Where you trained, promoted and given supervisory responsibilities? Show this in your CV and letter.
    - Show that people want to keep hiring and advancing you.
    - We are training people for positions of responsibility in government and public service. Reliability and people skills really do matter.

- **Use letter of intent to present yourself and your goals.**
  - Show that you understand our program. Why you are interested in this program, specifically?
  - Tell us about YOU (as an individual and as a member of the communities with which you identify).
  - How will your experiences allow you to contribute to public health and society?

FAQs and tips for applicants

- **Read website thoroughly and start early**

  - ▫ DLSPH website is difficult, we know
    - Using it will pay off

  - ▫ Find and use FULL length pages for MPH Epidemiology
    - Future students -> Masters Programs -> MPH Epi

  - **https://www.dlsph.utoronto.ca/program/mph-epidemiology**

Reference letters are very important

▫ Best: professors who taught small, senior seminars (writing, presentation and discussion focused)

▫ **HELP them do a great job for you**
  - **Tell them about our program and what we look for**
  - **Offer them some notes to start with; they can expand and personalize**

▫ **Expected is two academic references; one MAY be work-related <u>if</u> you are ~2 years out of school**
  - Work references MUST have academic insights (e.g., people who also teach or work with students, trainees or public health graduates. Ask them to explain their ability to assess you.
  - They <u>must</u> have directly supervised you at school or work

Ask months in advance: Missing or late => rejected

FAQs and tips for applicants

- Be professional and be polite
  - General and technical questions? Read first before asking, but then do ask.
  - Use official email:
  - **admissions**.**dlsph**@utoronto.ca

  - Do not hassle staff or ask multiple staff for a different response
    - You are *"auditioning at all times"*
    - *Interpersonal skills are essential in public health*

International applicants and those who have studied outside Canada

- Spaces for VERY FEW international students on student visa
  - Those admitted often have earned global scholarships (must be competitive, even if they hold funding)

- We must see evidence of English Language Proficiency at time of application (including Canadian Citizens and Permanent Residents trained overseas)
  - If there is ANY doubt, submit actual test scores
  - Rules and exemptions here:
  - https://www.sgs.utoronto.ca/future-students/admission-application-requirements/english-language-proficiency-testing/

- Committee needs to see copy of all transcripts, with English translation, and full details (individual course titles and individual course grades)
  - If you already using WES.org, great. Upload a copy of the most detailed report available.
  - We do NOT use the WES summary assessment reports. We make our own assessment.

For more information…

DLSPH website   www.dlsph.utoronto.ca

Graduate Department of Public Health Sciences
https://www.dlsph.utoronto.ca/students/future-students/

==**Epidemiology – Detailed program information and tips for applicants!**==
https://www.dlsph.utoronto.ca/program/mph-epidemiology

See DLSPH Events –
Virtual sessions several times per year
In person open house usually in October
We attend grad and career fairs – write to suggest opportunities