MPH in Epidemiology

Program overview for future applicants

Susan Bondy, Interim Program Director
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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

<table>
<thead>
<tr>
<th>Term</th>
<th>Major activities</th>
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<tr>
<td>1. Fall (Sep-Dec) &amp;</td>
<td><strong>Required courses</strong> ~5 courses per term</td>
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<td>2. Winter (Jan-Apr)</td>
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<td>3. Spring/summer (May-Aug;</td>
<td><strong>First Practicum Guaranteed</strong></td>
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<td>Full-time work)</td>
<td>- Placement database provided</td>
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<td>- Research partners, government, private</td>
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<td><strong>Most provide some student funding</strong></td>
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<td>4. Second Fall (Sept – Dec)</td>
<td>More courses continue: advanced skills; breadth and depth electives</td>
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<tr>
<td>5. Second Winter (Jan-Apr)</td>
<td>An elective <strong>second practicum</strong> or electives</td>
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<td>June convocation (most of cohort</td>
<td>(most of cohort graduate together)</td>
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<td>graduate together)</td>
<td>Completed by June deadline for those applying to medicine</td>
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**Courses are ON CAMPUS**
Only some remote activity
Practica usually off-campus
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 undergrad 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

- **You** create the required PDF attachment and submit with your application.
  - List **ALL** relevant quant courses
    - Highlight your **most advanced** 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 all 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 if 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 **must** 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