MPH Epidemiology Open House
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Overview

▪ What is epidemiology anyway?
▪ How our program works
▪ What to expect
▪ How to apply
What is epidemiology?

- “The study of the distribution and determinants of health related states or events in specified populations and the application of this study to control health problems”

- Epi: upon/on/over
- Demos: population/people
- Logos: study/count/tell

- The study of what is upon us/counting what is upon the people

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1 Porta, Dictionary of Epidemiology
Objectives of epidemiology

- Study the natural course of disease from onset to resolution
- Determine the extent of disease in a population
- Identify patterns and trends in disease occurrence
- Identify the causes of disease
- Evaluate the effectiveness of measures that prevent and treat disease

- How disease is distributed in populations and the factors that influence/determine this distribution
Program Goals

- Be part of a research group or in public health practice
- Use major methodological and analytical techniques
- Able to prepare peer-reviewed publications
- Present epidemiological information
- Understand, and critique scientific literature
- Assess impact of interventions
- Trends and patterns of disease
- Major causes and predictors
- Applied epidemiology skills
- Basic public health principles and practice

Emphasis on quantitative methods, appraisal of evidence, analysis and interpretation. Skills applicable to any setting where Epidemiologists work.
Progress through the program over 16-20 months (Full time study)

Foundation Skills

- Biostatistics
- Epidemiology methods, research
- Applied epidemiology (descriptive and surveillance)
- Policy and Research appraisal

Core practicum experience:
Quantitative epidemiology, in a research or applied setting

Explore and specialize

Advanced Electives:
Quantitative, Qualitative, Professional Substantive

Optional: Practicum II

Any term
Electives: content and/or methods
Chronic disease
Policy
Mental health, Infectious disease
Genetics, Social science
Global Health
…and more
Timeline: First Fall term

- **Core courses**
  - Intro to Public Health (multidisciplinary)
  - Epi required courses (Biostats 1/ Epi 1 / Pop Persp.)
  - Core Policy course (multidisciplinary)
  - *Up to one elective*
Timeline: First Winter term

- Core courses
  - Epi required courses
    - Biostats 2 and Epi Methods 2
    - Health Trends and Surveillance (applied epi.),
    - Scientific Overviews (critical appraisal of evidence)
  - Up to one elective
The rest is up to you!

- What are you interested in?
- What skills do you want to develop?
Practicums

▪ Mandatory practicum in the Summer of your first year (summer 2022)

▪ Optional second practicum in the Winter term of your second year (Winter 2023)

▪ We coordinate these with you

▪ Positions advertised on an internal job board just for current MPH students

▪ Professional Development Opportunities
  – How to draft a cover letter, your CV, interview etc.
MPH Epidemiology - Practicum

- Practicum I Epidemiology-specific requirements
  - Must apply quantitative, writing and communications skills
  - Variety of professional and/or research settings
  - Most Epi students have received a small stipend ($)

- Optional second practicum
  - Try new things
  - In past years only the 2nd practicum could be outside Canada
    - This year....?

- Mix of two practicum
  - You may return to same mentors to extend the experience (e.g., phases of more ambitious research)
  - Or, a different place = different experiences and broader networking
The rest is up to you!

- What are you interested in?
- What skills do you want to develop?

- Social Determinants of Health
- Chronic Disease and Multimorbidity
- Infant Maternal Health
- Aging
- Genetics
- Methods
- Cancer
- Infectious Disease
- Health Behaviour
- AI and Health
- Health Policy
- Global Health
MPH Epidemiology graduates, where are you now? (%)

- Gov't - Prov'l
- Gov't - Fed'l
- Local region Pub Hlth
- Health Care
- NGO
- Private sector, consulting...
- Higher Ed - Faculty
- Higher Ed - Staff
- Higher Ed - attending
- UN or WHO
- Other

Grads: 2004 to 2010
How to Apply?

- Application deadline is **January 18, 2021**
- Application components:
  - Letter of intent
  - CV
  - Statistics requirement
  - Scanned transcripts (all undergrad and grad studies)
  - ELP (if applicable)
  - 2 letters of reference
Letter of Intent

- Write a free-form essay
- No more than 1,000 words (2 pages, single-spaced)
- Outline your reasons for applying to the program
- How your background has prepared you for it.
- Indicate your aspirations, learning goals, career plans, and specific research plans (if applicable).
- Highlight any experience relevant to your program choice.
Curriculum Vitae

- Should include at least:
  - Name and contact information
  - Education
  - Employment
  - Publications and presentations
  - Teaching and research activities
  - Other relevant experience
Eligibility – all Graduate programs

- Qualifying Undergraduate Honours degree
  - Four years of progressively more advanced study

- Minimum academic standing
  - Inadmissible without mid-B standing (final 5 senior level courses (DLSPH minimum academic standing)
  - Upgrading no longer counted

http://www.dlsph.utoronto.ca/students/future-students/admission-requirements/
Eligibility cannot be determined until a complete application is submitted.

Applicants will **not** be admitted without “at least a mid-B average in final year of the degree or in the last 5.0 full course equivalents completed at a senior level”

**Stronger academic standing is needed to be competitive**

- We expect mostly As and Bs
- STRONG marks in challenging senior courses
  - Math, statistics
  - Courses with essays, small seminars
- Equivalent of honours specialization
  - Progression to senior courses (e.g., 400s)
  - One or more honours discipline
- Committee reviews entire academic record.

**Eligibility cannot be determined until a complete application is submitted.**
Eligibility: Program-specific requirements

1. **Statistics requirement.**
   - At least one, term-long, university credit with required content
   - Take content list to your professor when choosing; you must provide course content to us (with uploaded application)
   - Minimum grade of B+


https://www.dlsph.utoronto.ca/program/mph-epidemiology/
See “advice to applicants” section
Statistics requirement (the #1 FAQ)

One or more courses (any discipline) which covered all the required content

- Frequency distributions, skewness
- Measures of central tendency: Mean, median, mode
- Measures of variation: Standard deviation, standard score
- Probability, normal curve
- Correlation
- Regression (linear)
- Sampling, confidence intervals
- Levels of measurement: nominal, ordinal, interval
- Test of significance: Null hypothesis: t-test, one-tail/two-tail tests
- Test of significance: Chi square
- Analysis of variance

B+ or better standing
(As are preferred)
Statistics attachment of application

- The applicant’s responsibility: ensure each person reading your online application has all the evidence needed and that have the statistics pre-requisite
- Tip: Create a single multi-page PDF document
- Emphasize your MOST ADVANCED training in statistics
  - Identify all relevant courses (code and year) in your transcripts
  - Committee must see course content. Examples:
    - Online syllabus – provide website address and ensure any person can see content
    - Copy of the syllabus or detailed course description within attachment
    - Statement of content from stats professor
Internationally-trained students

- **English Language Proficiency, an absolute requirement**
  - See School of Graduate Studies website: required scores and the only countries where TOEFL is exempted
  - The MPH Epidemiology committee makes NO other exemptions or exceptions
  - Scores must be submitted with application, or application is incomplete and removed from review

- **U of T also offers rich services for internationally-trained students**
  - Contact the Centre for International Experience

https://www.sgs.utoronto.ca/admissions/international-students/
Assessment by Admissions Committee

- We consider the full breadth of your qualities and experience

- Quantitative skills, research methods background
- Writing and communications
- Require some human health knowledge
  - Plus physical, social and environmental determinants of health
- Maturity, professional skills, interpersonal skills
- Are we a good match?
  - Will this program help you reach your career goals
  - What will you contribute to this program and its people
Provide evidence of experience

- CV and letter should include all work experience
  - Related to health and research
  - Other employment also important

- Evidence of experience from volunteer work, or student positions
  - Be clear and honest about responsibilities and expectations

- Your past behaviour and choices are the best evidence of your genuine interest in Epidemiology
  - Must show commitment to working with quantitative methods
  - Clearly able to work with others
How to apply

**First, do your research**
- Thoroughly examine this program and others
- Perform a self-examination
- What are your greatest strengths, accomplishments? What are your true goals?

**Plan the application**
- Timeline for required tasks
- Draft letter of intent and recruit references
- Follow all instructions
  - Leave time to review for quality
Make best use of application

- No missing or poor quality information
  - Transcripts
    - Scanned copies in application must look like official transcript
    - Must have course titles, individual grades, registration details
  - Statistics requirement
    - That attachment can be edited to add detailed information (make reviewer’s job easy)
  - Letters
    - Genuine, beautifully written and letter-perfect
    - Work with your referees to capture your qualities

- Make your best possible impression
  - Show you can educate yourself, read information already provided
  - Be bright and respectful every time you interact with program faculty, staff and students
For more information...

- DLSPH website  www.dlsph.utoronto.ca
- Download detailed program description for MPH Epi
- See also Graduate Student Handbook

- Graduate Department of Public Health Sciences
- Health Sciences Building
- 155 College Street, Ste. 600, 6th Floor
- Tel: 416-978-2058
- Email: dlsph.grad@utoronto.ca

- Epidemiology key contacts
- Admin: Matilda Kong
- MPH Program Lead: Jennifer Brooks
- Epidemiology Division Head: Arjumand Siddiqui
Questions?