Twin Cities Campus

Epidemiology Ph.D.
School of Public Health - Adm
School of Public Health

Link to a [list of faculty](#) for this program.

Contact Information:
School of Public Health, MMC 819, A395 Mayo Memorial Building, 420 Delaware Street, Minneapolis, MN 55455 (612-626-3500 OR 1-800-774-8636)
Email: sph-ask@umn.edu
Website: http://www.sph.umn.edu

- Program Type: Doctorate
- Requirements for this program are current for Fall 2022
- Length of program in credits: 53 to 63
- This program does not require summer semesters for timely completion.
- Degree: Doctor of Philosophy

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

The Epidemiology PhD program trains students to examine public health trends, design and implement studies, interpret research results for policy and program development, and analyze significant public health problems. There are two tracks within the Epi PhD program: clinical/biological epidemiology (CBE) or social/behavioral epidemiology (SBE).

The School of Public Health is accredited by the Council on Education for Public Health (CEPH).

Program Delivery
This program is available:
- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission
The preferred undergraduate GPA for admittance to the program is 3.00.

Applicants must be in process, or have completed, a master's degree in a related field.

Special Application Requirements:
Strong quantitative aptitude, along with satisfactory grades in college-level quantitative courses. At least three recommendations (form and separate letter) from faculty and/or work supervisors with knowledge of the applicant's scholastic and professional capabilities and potential; statement of goals and objectives (letter of intent) for seeking a career in epidemiology.

In addition, applicants must submit a separate essay (statement of research interests) beyond what is required for the SOPHAS application process that provides evidence of their potential to conduct original research in a specific epidemiologic area and, if possible, indicates an interest in particular methodologies or study designs. Serious applicants are encouraged to contact the program coordinator at epichstu@umn.edu before applying. Students begin their studies in the fall semester. Applications must be completed by December 1 of the year prior to beginning the doctoral program.

International applicants must submit score(s) from one of the following tests:
- TOEFL
  - Internet Based - Total Score: 100
  - Paper Based - Total Score: 600
- IELTS
  - Total Score: 7
- MELAB
  - Final score: 80

Key to [test abbreviations](#)(TOEFL, IELTS, MELAB).

For an online application or for more information about graduate education admissions, see the [General Information](#) section of the catalog website.

Program Requirements

29 to 39 credits are required in the major.
24 thesis credits are required.

This program may be completed with a minor.

Use of 4xxx courses towards program requirements is not permitted.

A minimum GPA of 3.25 is required for students to remain in good standing.

At least 2 semesters must be completed before filing a Degree Program Form.

Courses offered on both the A-F and S/N grading basis must be taken A-F, with a minimum grade of B- earned for each course.

All Epidemiology PhD students must also complete the following components:

1. All Epidemiology PhD students, regardless of either SBE or CBE track, must attend 12 seminars.
2. All Epidemiology PhD students, regardless of either SBE or CBE track, with the exception of the MD/PhD students, must TA a course. (Students who are MD/PhD students do NOT need to TA a course).
3. All Epidemiology PhD students must give a minimum 50 minute lecture in an Epidemiology course.

Core Coursework (15 credits)
 Take the following courses:
 PUBH 6348 - Writing Research Grants (2.0 cr)
 PUBH 7401 - Fundamentals of Biostatistical Inference (4.0 cr)
 PUBH 8341 - Advanced Epidemiologic Methods: Concepts (3.0 cr)
 PUBH 8342 - Advanced Epidemiologic Methods: Applications (3.0 cr)
 PUBH 6250 - Foundations of Public Health (2.0 cr)
 PUBH 8345 - How To Be An Anti-Racist Epidemiologist (1.0 cr)

Teaching Course (1-3 credits)
 Select one of the following, in consultation with the advisor. Students choosing GRAD 8200 must complete it with the following topic, 'Teaching & Learning: An Online Course'.

 GRAD 8101 - Teaching in Higher Education (3.0 cr)
 or GRAD 8200 - Teaching and Learning Topics in Higher Education (1.0 cr)

Thesis Credits
 Take at least 24 doctoral thesis credits.
 PUBH 8888 - Thesis Credit: Doctoral (1.0 - 24.0 cr)

Joint- or Dual-degree Coursework: MD/PhD-Epidemiology

Program Sub-plans

Students are required to complete one of the following sub-plans.
Students may not complete the program with more than one sub-plan.

Clinical/Biological Epidemiology
Clinical/Biological Track (13-23 credits)
 Biological Methods/Statistics Course (3 credits)
  Take the following course:
  PUBH 7420 - Clinical Trials: Design, Implementation, and Analysis (3.0 cr)
 Additional Biostatistics Course (3 credits)
  Select at least 3 credits from the following in consultation with the advisor:
  PUBH 6915 - Nutrition Assessment (2.0 cr)
  PUBH 7402 - Biostatistics Modeling and Methods (4.0 cr)
  PUBH 7405 - Biostatistical Inference I (4.0 cr)
  PUBH 7406 - Biostatistical Inference II (3.0 cr)
  PUBH 7430 - Statistical Methods for Correlated Data (3.0 cr)
  PUBH 7445 - Statistics for Human Genetics and Molecular Biology (3.0 cr)
  PUBH 8343 - Synthesis and Application of Methods in Epidemiologic Research (3.0 cr)

PUBH 8344 - Advanced Epidemiologic Methods Workshop (1.0 cr)
PUBH 8804 - Advanced Quantitative Methods Seminar (3.0 cr)
Content Area Courses (2-4 credits)
Students pursuing the joint MD/PhD degree select at least 2 credits in consultation with the advisor. All other students complete at least 4 credits.
PUBH 6140 - Occupational and Environmental Epidemiology (2.0 cr)
PUBH 6381 - Genetics in Public Health in the Age of Precision Medicine (2.0 cr)
PUBH 6385 - Epidemiology and Control of Infectious Diseases (2.0 cr)
PUBH 6386 - Cardiovascular Disease Epidemiology and Prevention (2.0 cr)
PUBH 6387 - Cancer Epidemiology (2.0 cr)
PUBH 6389 - Nutritional Epidemiology (2.0 cr)
Electives (5-13 credits)
Students pursuing the joint MD/PhD degree select at least 5 elective credits in consultation with the advisor. All other students complete at least 13 elective credits.
PUBH 6355 - Pathophysiology of Human Disease (4.0 cr)
PUBH 7391 - Independent Study: Epidemiology (1.0 - 4.0 cr)
PUBH 7392 - Readings in Epidemiology (1.0 - 4.0 cr)
PUBH 7405 - Biostatistical Inference I (4.0 cr)
PUBH 7406 - Biostatistical Inference II (3.0 cr)
PUBH 7430 - Statistical Methods for Correlated Data (3.0 cr)
PUBH 7445 - Statistics for Human Genetics and Molecular Biology (3.0 cr)
PUBH 7450 - Survival Analysis (3.0 cr)
PUBH 8343 - Synthesis and Application of Methods in Epidemiologic Research (3.0 cr)
PUBH 8344 - Advanced Epidemiologic Methods Workshop (1.0 cr)
VMED 5180 - Ecology of Infectious Disease (3.0 cr)
VMED 8090 - Epidemiology of Zoonoses and Diseases Common to Animals and Humans (3.0 cr)

Social/Behavioral Epidemiology
Social/Behavioral Track (13-23 credits)
Behavioral Methods/Statistics Course (3 credits)
Take the following course:
PUBH 7420 - Clinical Trials: Design, Implementation, and Analysis (3.0 cr)
Additional Biostatistics Course (3 credits)
Select at least 3 credits from the following in consultation with the advisor:
PUBH 6915 - Nutrition Assessment (2.0 cr)
PUBH 7402 - Biostatistics Modeling and Methods (4.0 cr)
PUBH 7405 - Biostatistical Inference I (4.0 cr)
PUBH 7406 - Biostatistical Inference II (3.0 cr)
PUBH 7430 - Statistical Methods for Correlated Data (3.0 cr)
PUBH 8343 - Synthesis and Application of Methods in Epidemiologic Research (3.0 cr)
PUBH 8344 - Advanced Epidemiologic Methods Workshop (1.0 cr)
PUBH 8804 - Advanced Quantitative Methods Seminar (3.0 cr)
Content Area Courses (4 credits)
Take the following courses:
PUBH 6333 - Principles of Human Behavior I (2.0 cr)
PUBH 6334 - Human Behavior II (2.0 cr)
Electives (3-13 credits)
Students pursuing the joint MD/PhD degree select at least 3 elective credits in consultation with the advisor. All other students complete at least 13 elective credits.
PUBH 6074 - Mass Communication and Public Health (3.0 cr)
PUBH 6078 - Public Health Policy as a Prevention Strategy (2.0 cr)
PUBH 6094 - Interventions to Address Weight-Related Health and Eating Disorders (2.0 cr)
PUBH 6370 - Social Epidemiology (2.0 cr)
PUBH 6381 - Genetics in Public Health in the Age of Precision Medicine (2.0 cr)
PUBH 6385 - Epidemiology and Control of Infectious Diseases (2.0 cr)
PUBH 6386 - Cardiovascular Disease Epidemiology and Prevention (2.0 cr)
PUBH 6387 - Cancer Epidemiology (2.0 cr)
PUBH 7391 - Independent Study: Epidemiology (1.0 - 4.0 cr)
PUBH 7392 - Readings in Epidemiology (1.0 - 4.0 cr)
PUBH 7405 - Biostatistical Inference I (4.0 cr)
PUBH 7406 - Biostatistical Inference II (3.0 cr)
PUBH 8343 - Synthesis and Application of Methods in Epidemiologic Research (3.0 cr)
PUBH 8344 - Advanced Epidemiologic Methods Workshop (1.0 cr)