

# EPIDEMIOLOGY PROGRAM HIGHLIGHTS

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Mount Rainier behind Drumheller Fountain

# STEPHEN M. SCHWARTZ (“Steve”), PhD, MPH

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PROFESSOR & GRADUATE PROGRAM DIRECTOR

> **UW OFFICE:** 861B HRC  
(But most often at the Fred Hutch)



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# WHAT I DO

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## > RESEARCH

- Testicular germ cell tumors
- HPV-related cancers (anogenital, oropharyngeal)
- Cancer registration (PI: Cancer Surveillance System)
- Canine cancer causes and outcomes ([dogagingproject.org](http://dogagingproject.org))

## > TEACHING & SERVICE

- EPI 573 (Methods & Issues in Using Biological Measurements)
- PI, *Developing Data Driven Cancer Researchers* Training Grant
- Epidemiology Leadership Team
- Graduate Program Director



# THE GRADUATE PROGRAM DIRECTOR

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1. Advises, counsels, and assists graduate students;
2. Ensures that special attention is given to newly admitted students;

*I perform these responsibilities with the assistance of:*

- the Epi SAS staff*
- our Core faculty*

# DESCRIPTIVE EPIDEMIOLOGY OF UW EPIDEMIOLOGY STUDENTS, 2023–2024

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- > 83 new students in Summer/Fall 2023
- > 228 registered graduate students in Fall 2023
- > 90 MPH (40%), 39 MS (17%), 99 PhD (43%)
- > 16% have prior doctorate (e.g., MD, DVM, PhD, DDS)
- > 73% women, 25% men, 2% undeclared
- > 86 graduates in 2022-23 (25 PhD, 61 Masters)
- > Median time-to-degree: PhD 4.5 yrs, MPH/MS 2 yrs

# 2023 PHD COHORT FUNDING DATA

# DEPARTMENT OF EPIDEMIOLOGY

## DEGREE PROGRAMS – OUTLINES

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- MPH  
(2 years)
  - core public health and epidemiology coursework
  - elective courses
  - practicum
  - research-based thesis *or* capstone
- MS  
(2 years)
  - research methods coursework
  - elective courses
  - research-based thesis
- PhD  
(4-6 years)
  - research methods coursework
  - additional required courses
  - “independent” research-based dissertation

# The MPH Core Curriculum (Epi)

## Features

- All UW MPH students
- 2+ instructors from different disciplines
- 16 credits total

<u>Course Number</u>	<u>Title</u>
PHI 511	Foundations of Public Health
PHI 513	Analytic Skills for Public Health II
PHI 514	Determinants of Health
PHI 515	Implementing Public Health Interventions
PHI 516	Public Health Practice

# OTHER REQUIRED COURSES: Epi MPH

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Course Number	Title
EPI 512 & 513	Epidemiologic Methods I & II
EPI 510	Epidemiologic Data Analysis
EPI 514	Application of Epidemiologic Methods
BIOST 511/512/513 or BIOST 517/518	Medical Biometry I, II, III Applied Biostatistics I, II
EPI 584	Epidemiology Seminar (3 quarters)
Electives	As specified by each degree track (MCH or General)

# REQUIRED COURSES: MS & PhD

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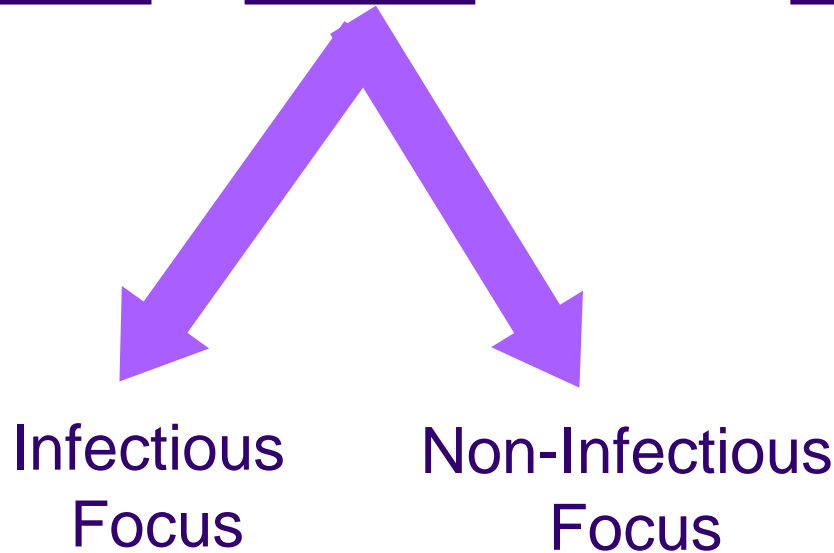
<u>Course Number</u>	<u>Title</u>
EPI 512 & 513	Epidemiologic Methods I & II
EPI 510	Epidemiologic Data Analysis
EPI 514	Application of Epidemiologic Methods
BIOST 511,512,513 or 517,518	Medical Biometry I, II, III Applied Biostatistics I, II
EPI 575	Anti-Racism and Equity: An Epidemiologic Approach
EPI 583	Epidemiology Seminar (3 quarters)
PHI 500	Public Health Practice, Science, and Knowledge
Electives	As specified by each degree program or track

# EPIDEMIOLOGY ELECTIVE COURSES

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Exposure or Disease Focus

Methods or Practice Focus



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# ELECTIVES: DISEASE FOCUS

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<u>Course Number</u>	<u>Title</u>
EPI 519	Research Methods and Current Topics in Cardiovascular Epidemiology
EPI 520	Epidemiology of Infectious Diseases ( <i>ID</i> )
EPI 521	Epidemiology of Maternal & Child Health Problems
EPI 524	Cancer: Epidemiology and Biology
EPI 527	Vaccines ( <i>ID</i> )
EPI 530	AIDS: A Multidisciplinary Approach ( <i>ID</i> )
EPI 571	Neuroepidemiology & Environmental Risk Factors

# ELECTIVES: EXPOSURE FOCUS

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<u>Course Number</u>	<u>Title</u>
EPI 517	Genetic Epidemiology
EPI 533	Pharmacoepidemiology
EPI 538	Nutritional Epidemiology

# ELECTIVES: METHODS/PRACTICE FOCUS

<u>Course Number</u>	<u>Title</u>
EPI 506	Surveillance Systems & Decision Making in Public Health
EPI 515 & 516	Advanced Epidemiologic Methods I & II
EPI 531	Statistical Methods for Analysis with Missing Data
EPI 535	Statistical Methods in Genetic Epidemiology
EPI 536	Categorical Data Analysis in Epidemiology
EPI 537	Survival Data Analysis in Epidemiology
EPI 539	Research & Evaluation Methods in Global Health
EPI 542	Clinical Epidemiology

w/Biost

# ELECTIVES: METHODS/PRACTICE FOCUS (cont.)

<u>Course Number</u>	<u>Title</u>
EPI 548	Research Methods for Social and Contextual Determinants of Health
EPI 555	Statistical Methods for Spatial Epidemiology
EPI 573	Biological Measurements in Epidemiologic Research
EPI 586	Responsible Conduct of Research: Global & Local
EPI 588	Preparing, Writing, and Critiquing Research Proposals
EPI 594	Field Epidemiology: Student Epidemic Action Leaders (SEAL) Team

# Student Epidemic Action Leaders (SEAL) Team (EPI 594)

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- > **Learn about public health practice and applied epidemiology:**
  - Surveillance systems, outbreak investigation and response, contact tracing, cluster investigation, public health communications
- > **Work on field assignments with state and local health departments providing surge capacity:**
  - Interview cases and controls for outbreak investigations, support surveillance activities, develop questionnaires and other tools that support outbreak investigations, conduct surveys, synthesize health data & more!
- > **Apply in Fall 2024** – SEALs start in winter and stay on the team through fall of the following year.

# UW GRADUATE CERTIFICATE PROGRAMS

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“... a linked series of graduate courses that constitute a coherent body of study. It is designed to enhance the education of matriculated graduate and professional students beyond the requirements for a graduate degree.”

# PUBLIC HEALTH-RELATED GRADUATE CERTIFICATE PROGRAMS

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- Public Health Genetics
- One Health
- HIV and STI
- Maternal and Child Health
- Public Health Practice
- Climate and Health
- Global Injury and Violence Prevention
- Global Health of Women, Adolescents, and Children
- Demographic Methods (Center for Studies in  
Demography and Ecology—  
CSDE)

# ADVISING & MENTORING

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## > Initial Academic Advisor

- Assigned in late spring, advises on course options
- “Meet” with at least once per quarter
- A guide to other faculty and resources as you search for a thesis/capstone/dissertation topic

## > Thesis/Capstone/Dissertation Supervisory Committee Chair

- Must be Core Epi faculty (unless exception granted)
- Becomes your formal academic advisor

## > Mentoring Resources

- <http://www.grad.washington.edu/mentoring/>
- Epidemiology student Canvas pages



# ADDITIONAL REQUIREMENTS FOR MASTER'S STUDENTS

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# MPH APPLIED PRACTICE EXPERIENCE ("Practicum")

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- > 160 hours practical public health experience
- > Variety of possible settings i.e., any organization ...

*"...that provides, plans for, coordinates, organizes, pays for, or regulates public health services..."*

- public or private
- for-profit or non-profit
- clinical or not clinical

Research?



- > Practicum Site Deliverables: vary with Site needs
- > UW Deliverables: practicum report and poster

# MPH Culminating Activity Options

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- > Thesis
- > Capstone

# MASTERS THESIS (*MS required, MPH option*)

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- > Quantitative, research-based
- > Usually a secondary data analysis from a completed study, but could involve new data collection
- > Proposal approved by your MS/MPH supervisory committee
- > Human subjects approval or exemption
- > 3-9 months of work
- > **Length:** ~manuscript for a peer-reviewed journal

# MPH CAPSTONE (*MPH option*)

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- > Community partner (CP) options:
  1. Yes: CP guides planning, conduct, and reporting
  2. No: student chooses topic of general applied PH relevance
- > Uses multiple skills acquired in courses and/or practicum
- > Proposal approved by faculty capstone advisor
- > Requires longer lead time than a thesis (if CP involved)
- > Rarely need IRB review (i.e., public health surveillance, exempt research, or not human subjects research)
- > 9-12 months of work
- > **Format and Length:** Form and scope of deliverables are tailored to the target audience

# WAIVING & SUBSTITUTING DEGREE REQUIREMENTS

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- > **Epi Methods I & II (EPI 512 & EPI 513) may not be waived or substituted**
  - Foundational, fresh perspective of the UW Epi graduate program
  - Provides specific preparation for subsequent coursework and Doctoral Preliminary Examination
- > **Intro Biostatistics Sequence: 2 options for MS & PhD**
  - Petition Epi to waive all of either sequence based on prior coursework or experience
  - Pass Biostatistics placement exam to skip just BLOST 511 or 517
- > **Other Epidemiology requirements**
  - Can petition to waive specific courses based on previous coursework or experience
- > **SPH requirements for MPH students**
  - Practicum cannot be waived
  - Waivers for Core MPH courses very rarely approved

# ADDITIONAL REQUIREMENTS FOR PhD STUDENTS

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# ADDITIONAL REQUIRED COURSES FOR PhD

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<u>Course Number</u>	<u>Title</u>
EPI 515 & 516	Advanced Epidemiologic Methods I & II
EPI 536	Categorical Data Analysis
EPI 537	Survival Data Analysis
EPI 584	Doctoral Dissertation Seminar (2 quarters)
EPI 588	Preparing, Writing, & Critiquing Research Proposals
EPI 591	Current Literature in Epidemiology (2 quarters)

# PhD EXAMINATIONS

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- > **Preliminary Examination** (annually in June)
- > **General Examination** (written and oral)
- > **Final Examination** (public dissertation defense)

# PhD DISSERTATION

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- > **Independent research activity of considerable depth:**
  - Formulation of hypotheses and research methods
  - Short & long proposals approved by committee
  - Often requires funding (to support data collection)
  - Human subjects review and approval
  - Data collection & analysis
  - 2-3 years of work
  - Written report (typically one or more manuscripts)
  - Public oral defense



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ANY (ADDITIONAL) QUESTIONS?

## **Epi Equity, Diversity, and Inclusion Committee (Epi EDI)**

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- **Anjum Hajat, Zeruiah Buchanan, and Jalen Smith**

## Epi EDI Structure & Membership

1 Faculty co-chair; 1 Student co-chair  
(both receive FTE for their service) & 1  
Staff co-chair

12-15  
Students

1-2  
Post-docs

2-3  
Staff

5-7  
Faculty

~15-20 committee members attend monthly meetings

Range = number of people in attendance from each group at monthly meetings  
More details on committee activities at <https://epi.washington.edu/diversity-committee>

# Select UW Epi EDI Initiatives

## Recruitment & Retention



- Events for prospective students from diverse backgrounds
- Monthly EPIc spaces for current students

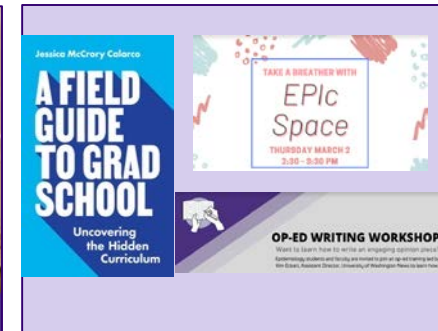


- Organized by Natasha Ludwig-Barron, PhDc & former EDI co-chair
- UWSPH resource page, including example submissions<sup>1</sup>

## Communication & Education



- Quarterly Epi EDI newsletter (above)
- EDI glossary, updated annually<sup>2</sup>
- EDI & anti-racism learning resources page for students, faculty & staff



- Panels about the “hidden curriculum” in graduate school<sup>3</sup>
- Peer mentoring program
- Op-Ed training
- NEW INITIATIVES

<sup>1</sup><https://sph.washington.edu/research/diversity-supplements>

<sup>2</sup><https://epi.washington.edu/edi-glossary>

<sup>3</sup><https://press.princeton.edu/books/paperback/9780691201092/a-field-guide-to-grad-school>