Mount Rainier behind Drumheller Fountain
STEIN M. SCHWARTZ (“Steve”), PhD, MPH

PROFESSOR & GRADUATE PROGRAM DIRECTOR

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

> CONTACT:
   – sschwart@fredhutch.org
   – stevesch@uw.edu
   – 206-499-6260 (cell)
WHAT I DO

> RESEARCH
  – Testicular germ cell tumors
  – HPV-related cancers (anogenital, oropharyngeal)
  – Cancer registration (PI: Cancer Surveillance System)
  – Canine cancer causes and outcomes (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

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

> 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

Full: 50% RA/TA, TG, or WA State Employee

Partial: 25% RA/TA, >$5500 stipend

Minimal: anything else >$0

None: $0
DEPARTMENT OF EPIDEMIOLOGY
DEGREE PROGRAMS – OUTLINES

• MPH
  - core public health and epidemiology coursework
  - elective courses
  - practicum
  - research-based thesis or capstone
  (2 years)

• MS
  - research methods coursework
  - elective courses
  - research-based thesis
  (2 years)

• PhD
  - research methods coursework
  - additional required courses
  - “independent” research-based dissertation
  (4-6 years)
# The MPH Core Curriculum (Epi)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>PHI 511</td>
<td>Foundations of Public Health</td>
</tr>
<tr>
<td>PHI 513</td>
<td>Analytic Skills for Public Health II</td>
</tr>
<tr>
<td>PHI 514</td>
<td>Determinants of Health</td>
</tr>
<tr>
<td>PHI 515</td>
<td>Implementing Public Health Interventions</td>
</tr>
<tr>
<td>PHI 516</td>
<td>Public Health Practice</td>
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</tbody>
</table>

### Features
- All UW MPH students
- 2+ instructors from different disciplines
- 16 credits total
OTHER REQUIRED COURSES: Epi MPH

<table>
<thead>
<tr>
<th>Course Number</th>
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<tbody>
<tr>
<td>EPI 512 &amp; 513</td>
<td>Epidemiologic Methods I &amp; II</td>
</tr>
<tr>
<td>EPI 510</td>
<td>Epidemiologic Data Analysis</td>
</tr>
<tr>
<td>EPI 514</td>
<td>Application of Epidemiologic Methods</td>
</tr>
<tr>
<td>BIOST 511/512/513</td>
<td>Medical Biometry I, II, III</td>
</tr>
<tr>
<td>or BIOST 517/518</td>
<td>Applied Biostatistics I, II</td>
</tr>
<tr>
<td>EPI 584</td>
<td>Epidemiology Seminar (3 quarters)</td>
</tr>
<tr>
<td>Electives</td>
<td>As specified by each degree track (MCH or General)</td>
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</tbody>
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# REQUIRED COURSES: MS & PhD

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</tr>
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<td>EPI 510</td>
<td>Epidemiologic Data Analysis</td>
</tr>
<tr>
<td>EPI 514</td>
<td>Application of Epidemiologic Methods</td>
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</table>
| 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

Exposure or Disease Focus  Methods or Practice Focus

Infectious Focus  Non-Infectious Focus
<table>
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<th>Course Number</th>
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<tbody>
<tr>
<td>EPI 519</td>
<td>Research Methods and Current Topics in Cardiovascular Epidemiology</td>
</tr>
<tr>
<td>EPI 520</td>
<td>Epidemiology of Infectious Diseases (ID)</td>
</tr>
<tr>
<td>EPI 521</td>
<td>Epidemiology of Maternal &amp; Child Health Problems</td>
</tr>
<tr>
<td>EPI 524</td>
<td>Cancer: Epidemiology and Biology</td>
</tr>
<tr>
<td>EPI 527</td>
<td>Vaccines (ID)</td>
</tr>
<tr>
<td>EPI 530</td>
<td>AIDS: A Multidisciplinary Approach (ID)</td>
</tr>
<tr>
<td>EPI 571</td>
<td>Neuroepidemiology &amp; Environmental Risk Factors</td>
</tr>
</tbody>
</table>
## ELECTIVES: EXPOSURE FOCUS

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<tbody>
<tr>
<td>EPI 517</td>
<td>Genetic Epidemiology</td>
</tr>
<tr>
<td>EPI 533</td>
<td>Pharmacoepidemiology</td>
</tr>
<tr>
<td>EPI 538</td>
<td>Nutritional Epidemiology</td>
</tr>
</tbody>
</table>
## ELECTIVES: METHODS/PRACTICE FOCUS

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<tbody>
<tr>
<td>EPI 506</td>
<td>Surveillance Systems &amp; Decision Making in Public Health</td>
</tr>
<tr>
<td>EPI 515 &amp; 516</td>
<td>Advanced Epidemiologic Methods I &amp; II</td>
</tr>
<tr>
<td>EPI 531</td>
<td>Statistical Methods for Analysis with Missing Data</td>
</tr>
<tr>
<td>EPI 535</td>
<td>Statistical Methods in Genetic Epidemiology</td>
</tr>
<tr>
<td>EPI 536</td>
<td>Categorical Data Analysis in Epidemiology</td>
</tr>
<tr>
<td>EPI 537</td>
<td>Survival Data Analysis in Epidemiology</td>
</tr>
<tr>
<td>EPI 539</td>
<td>Research &amp; Evaluation Methods in Global Health</td>
</tr>
<tr>
<td>EPI 542</td>
<td>Clinical Epidemiology</td>
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<tr>
<td>Course Number</td>
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<tr>
<td>EPI 548</td>
<td>Research Methods for Social and Contextual Determinants of Health</td>
</tr>
<tr>
<td>EPI 555</td>
<td>Statistical Methods for Spatial Epidemiology</td>
</tr>
<tr>
<td>EPI 573</td>
<td>Biological Measurements in Epidemiologic Research</td>
</tr>
<tr>
<td>EPI 586</td>
<td>Responsible Conduct of Research: Global &amp; Local</td>
</tr>
<tr>
<td>EPI 588</td>
<td>Preparing, Writing, and Critiquing Research Proposals</td>
</tr>
<tr>
<td>EPI 594</td>
<td>Field Epidemiology: Student Epidemic Action Leaders (SEAL) Team</td>
</tr>
</tbody>
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Student Epidemic Action Leaders (SEAL) Team (EPI 594)

> 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

“... 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

- 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

> 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
MPH APPLIED PRACTICE EXPERIENCE ("Practicum")

> 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

> Practicum Site Deliverables: vary with Site’s needs
> UW Deliverables: practicum report and poster
MPH Culminating Activity Options

> Thesis
> Capstone
MASTERS THESIS *(MS required, MPH option)*

> 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)*

- 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

> 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 BIOST 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
## ADDITIONAL REQUIRED COURSES FOR PhD

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<td>EPI 584</td>
<td>Doctoral Dissertation Seminar (2 quarters)</td>
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<td>EPI 588</td>
<td>Preparing, Writing, &amp; Critiquing Research Proposals</td>
</tr>
<tr>
<td>EPI 591</td>
<td>Current Literature in Epidemiology (2 quarters)</td>
</tr>
</tbody>
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PhD EXAMINATIONS

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

> 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
ANY (ADDITIONAL) QUESTIONS?
Epi Equity, Diversity, and Inclusion Committee (Epi EDI)

• 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, PhD & former EDI co-chair
- UWSPH resource page, including example submissions¹

**Communication & Education**
- Quarterly Epi EDI newsletter (above)
- EDI glossary, updated annually²
- EDI & anti-racism learning resources page for students, faculty & staff
- Panels about the “hidden curriculum” in graduate school³
- Peer mentoring program
- Op-Ed training
- NEW INITIATIVES

¹https://sph.washington.edu/research/diversity-supplements
²https://epi.washington.edu/edi-glossary
³https://press.princeton.edu/books/paperback/9780691201092/a-field-guide-to-grad-school