DOCTOR OF PHILOSOPHY IN THE FIELD OF EPIDEMIOLOGY

Program Director S. Cleary

The purpose of the doctor of philosophy program is to prepare students for a career in epidemiologic research in an academic, government, or industry setting. The PhD graduate is expected to have knowledge across a wide range of epidemiologic theories and methods and specific knowledge of the epidemiology of one of the following areas: chronic disease, infectious disease, environmental and occupational health.

Doctoral students are required to pass a written comprehensive examination and to complete a dissertation.

At the completion of the doctoral program in epidemiology students will be able to:

- Demonstrate understanding of general and specialized epidemiologic concepts;
- Develop a research protocol;
- Conduct and analyze data from a research study; and
- Disseminate research findings.

Admissions Requirements

Specific admission requirements are shown on the Graduate Program Finder and in the School of Public Health program webpage.

Applicants must hold an undergraduate degree from an accredited institution of higher learning. Although not required, most admitted students have completed a master’s degree prior to admission. Before applying, applicants must provide evidence of the completion of these required prerequisites:

- Calculus I and II- 6 credits
- Human Biology- 8 credits

And, the following courses are highly recommended admission prerequisites:

- Linear Algebra- 3 credits
- SAS- 3 credits

If desired, a student may complete the MS or MPH program prior to admission to the PhD degree program, in which case no more than 24 credits from these degrees may be applied to the PhD coursework requirements. In this instance the student will be required to take a minimum of 27 additional credits of coursework. The distribution of these courses between epidemiology and statistics will depend on the nature of the master’s degree and whether the transferred credits will be used to defray epidemiology or statistics coursework.

All applications are submitted through SOPHAS.org (http://SOPHAS.org).

REQUIREMENTS

The following requirements must be fulfilled:

The requirements for the Doctor of Philosophy Program (http://bulletin.gwu.edu/arts-sciences/#doctoraltext).

72 credits

Preparatory Requirements

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<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BISC 1115 &amp; BISC 1125</td>
<td>Introductory Biology: Cells and Molecules and Introduction to Cells and Molecules Laboratory</td>
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<tr>
<td>BISC 1116 &amp; BISC 1126</td>
<td>Introductory Biology: The Biology of Organisms and Introduction to Organisms Laboratory</td>
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<tr>
<td>MATH 1231</td>
<td>Single-Variable Calculus I</td>
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<tr>
<td>MATH 1232</td>
<td>Single-Variable Calculus II</td>
<td></td>
</tr>
<tr>
<td>MATH 2233</td>
<td>Multivariable Calculus (option A only)</td>
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<tr>
<td>MATH 2184</td>
<td>Linear Algebra I</td>
<td></td>
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<tr>
<td>STAT 2183 or PUBH 6249</td>
<td>Intermediate Statistics Lab/Packages Use of Statistical Packages: Data Management and Data Analysis</td>
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Degree Requirements

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<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>PUBH 6003</td>
<td>Principles and Practices of Epidemiology</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>PUBH 6247</td>
<td>Design of Health Studies</td>
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<tr>
<td>PUBH 6252</td>
<td>Advanced Epidemiology Methods</td>
<td></td>
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<tr>
<td>PUBH 8419</td>
<td>Measurement in Public Health and Health Services</td>
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One of the following for a total of 4 credits:

- PUBH 6299  | Topics in Epidemiology and Biostatistics (taken for 2 credits) and
- PUBH 6004  | Environmental and Occupational Health in a Sustainable World or PUBH 6007 | Social and Behavioral Approaches to Public Health

OR

- PUBH 6299 & PUBH 6006  | Topics in Epidemiology and Biostatistics and Management and Policy Approaches to Public Health (taken for 1 credit)

**Statistics core**

- STAT 6210  | Data Analysis (OR)
- PUBH 8365  | Design of Medical Studies
- PUBH 8366  | Biostatistical Methods (basis for PhD general comprehensive)

**Option A**

- STAT 6201  | Mathematical Statistics I
- STAT 6202  | Mathematical Statistics II

**Option B**

- PUBH 8364  | Quantitative Methods

**Electives**

A minimum of 17 to 20 public health elective credits, which may be selected from the following. Additional courses may be approved by the program director.

- PUBH 6299  | Topics in Epidemiology and Biostatistics
- PUBH 6123  | Toxicology: Applications for Public Health Policy
- PUBH 6124  | Problem Solving in EOH
- PUBH 6242  | Clinical Epidemiology and Public Health: Reading the Research
- PUBH 6244  | Cancer Epidemiology

**Consulting**

Three credits from the following:

- PUBH 6258  | Advanced Topics in Biostatistical Consulting
- PUBH 6283  | Biostatistics Consulting Practicum
The consulting requirement may be waived by the Epidemiology Program Director based on written documentation of prior equivalent course work or relevant work experience. Waiver of the consulting course increases the total number of electives proportionally.

**Dissertation research**

| PUBH 8999 | Dissertation Research (taken in units of 3 credits) |

*Honors Program students and those who have been invited to join the Scholars in Quantitative and Natural Sciences (SQNS) Program take BISC 1120 instead of BISC 1125 for the lab component.

**Graduation Requirements**

1. **Program options:** Students may choose either curriculum Option A or curriculum Option B for the Doctor of Philosophy degree in the field of epidemiology.
2. **Graduate credit requirement:** 72 graduate credits are required.
3. **Prerequisites:** Review official program guide for minimum prerequisite requirements for admission.
4. **Comprehensive (General) exam:** successful completion within 24 months of matriculation.
5. **Dissertation:** 12 to 21 credits of dissertation research are required.
6. **Grade point requirements:** An overall GPA of 3.0 (B average) is required.
7. **Time limit requirement:** The degree must be completed in 8 years.
8. **Transfer credit policy:** Up to 24 credits from an applicable masters program may be approved to be transferred to the doctoral program. Transferred courses must have received a grade of B or above and earned at an accredited institution.