Epidemiology

DEGREES OFFERED:
• MPH in Epidemiology
• Ph.D. in Epidemiology

MPH IN EPIDEMIOLOGY

The Master of Public Health (MPH) degree is designed for those who wish to acquire knowledge and skills necessary for epidemiologic practice and research. This degree will be appropriate for persons interested in a career studying the relationship of risk factors to a variety of disease, injury, and other health-related states. This degree requires forty-two credit hours and typically takes four semesters to complete.

Upon completion of the MPH degree in Epidemiology, graduates will have achieved the following competencies:
• Derive and assess basic epidemiologic frequencies and association.
• Compare and contrast epidemiologic study designs.
• Weigh a public health problem in terms of magnitude, person, time, and place.
• Measure occurrences of incidence, morbidity, and mortality.
• Summarize concepts of causation.
• Derive appropriate inferences from epidemiologic data.
• Analyze data using statistical software to fit epidemiologic regressions, generate coefficients, and explain interpretations properly.
• Analyze data for confounding, and generate a proper interpretation.
• Appraise data for effect modification, and generate a proper interpretation.
• Evaluate data for dose-response.
• Evaluate basic multivariable statistical techniques commonly used in clinical and public health settings.
• Manage standard statistical software to efficiently manage data structures.
• Integrate and synthesize epidemiologic knowledge, skills and abilities as demonstrated in the context of a culminating experience.

WVU MPH graduates in Epidemiology are qualified to work and provide leadership in state, federal, and global health agencies (e.g. Centers for Disease Control and Prevention [CDC], The National Institute for Occupational Safety and Health [NIOSH]); hospitals; infection control departments in multiple industries; academic health centers and other healthcare organizations; research institutions, foundations; insurance and managed care organizations; and pharmaceutical and biotechnology companies.

PH.D. IN EPIDEMIOLOGY

The doctor of philosophy (Ph.D.) in epidemiology prepares students for careers in research, teaching, and consulting. Students develop research and teaching skills in epidemiology through coursework and practice opportunities. The curriculum provides rigorous and comprehensive training in epidemiologic methods for clinical and population-based research including study design, statistical analysis and interpretation of results, as well as research areas of focus for epidemiologic research including chronic diseases, infectious diseases, injury, and gene by environment interactions. The program’s etiologic orientation is based on the premise that knowledge of genetic, physiologic, behavioral, and environmental factors contribute to understanding the underlying causes of complex human diseases needed to develop and evaluate effective preventive and treatment measures.

Upon completion of the Ph.D. degree in epidemiology, graduates will be able to:
• Develop effective strategies for teaching in higher education.
• Review and synthesize pertinent literature and formulate focused research questions that address identified knowledge gaps.
• Design and conduct original research that uniquely contributes to the public health scientific knowledge.
• Disseminate research findings through appropriate peer-reviewed publications and presentations, and to other public health community audiences.
• Design investigations of acute and chronic conditions, as well as other adverse health outcomes in targeted populations.
• Analyze and evaluate data from epidemiologic investigations and disease and injury surveillance systems.
• Critically evaluate results of epidemiologic studies, including study design, analysis results, and conclusions.
• Prepare written and oral reports and presentations to effectively communicate to professional audiences, policy makers, and the general public.
• Prepare research proposals for extramural peer-reviewed funding.

Graduates of the Ph.D. in epidemiology program typically work as faculty members in academic institutions; scientists in research centers, e.g., the National Institutes of Health (NIH), Centers for Disease Control and Prevention (CDC) or the pharmaceutical industry; or may assume leadership positions in state or federal health agencies (such as CDC, Food and Drug Administration [FDA], and the Environmental Protection Agency [EPA]).
Students who have not earned a relevant master's or professional degree may still be admitted to the doctoral program. However, these students are required to complete basic public health/epidemiology courses in the School of Public Health. These students should still apply directly to the Ph.D. program.

FACULTY
INTERIM CHAIR
• Jefferson Frisbee - Ph.D. (University of Guelph, Canada)

PROFESSORS
• Sarah Knox - Ph.D. (University of Stockholm)
• Ian R. H. Rockett - Ph.D. (Brown University)

ASSOCIATE PROFESSORS
• Kimberly Innes - Ph.D. (Cornell University)
• Peter Giacobbi, Jr. - Ph.D. (University of Tennessee)
• R. David Parker - Ph.D. (University of South Carolina)

ASSISTANT PROFESSORS
• Baqiyyah Conway - Ph.D. (University of Pittsburgh)
• Kelly Gurka - Ph.D. (University of North Carolina)
• Motao Zhu - Ph.D. (State University of New York at Albany)

Admission Guidelines for MPH
• A baccalaureate degree from an accredited college or university (required)
• Preferred minimum GPA of 3.0
• Preferred minimum GRE scores of 150 (verbal), 155 (quantitative), and 4.0 (analytical writing)
• Personal Statement
• Three academic letters of recommendation
• TOEFL scores (minimum 550 paper-based, 213 computer-based, 80 internet-based) International students only

MPH ADMISSION
If you are ready to apply to West Virginia University School of Public Health, the admissions team is here to assist you. Our MPH Program is CEPH accredited, and our new School of Public Health is transitioning to be a CEPH-accredited school of public health as well.

We are also one of the schools participating in SOPHAS (Schools of Public Health Application Service). Our MPH Admissions process is a two-step process. All MPH applications must be submitted through the national SOPHAS service and applicants must also submit a WVU Graduate application.

In addition to the general application, applicants must submit to SOPHAS a statement of purpose and objectives, official GRE test scores, three letters of reference, a current resume/curriculum vitae, and all university transcripts. SOPHAS requires original transcripts from ALL U.S. institutions attended! (Even Study Abroad) Please see each Major’s website for additional application requirements.

Applicants must indicate their first choice of MPH major, and may also indicate a second choice. A maximum of two choices is allowed. (SOPHAS fee $120.00 – one choice; SOPHAS fee $165.00 – two choices)

• E-submit your application as soon as the applicant entered information is complete. Do NOT wait for SOPHAS to receive transcripts, recommendations or test scores

• Plan Ahead! Allow up to 4 weeks for SOPHAS to verify grades, process and mail your application to your designated institutions after your documents have been received.

• SOPHAS grants fee waivers based upon financial need for Peace Corps Volunteers, McNair Scholars, Gates Millennium Scholars Program, AmeriCorps, U.S. and International applicants.

Applications that are complete will then be reviewed by the department. Students will receive a communication from the WVU School of Public Health regarding their recommendation for acceptance and instructions to complete the WVU Graduate application and pay the $60.00 WVU application fee.
Important: when sending GRE scores for consideration for admission at WVU use the GRE WVU School of Public Health College code: 0157. This is the code that MUST be used, otherwise your GRE score will not be reported to SOPHAS and your application will be incomplete and therefore will not be reviewed for an admissions decision. [There are different codes for other programs at West Virginia University]

All other degrees and certificate programs will use the WVU application system.

Admission Guidelines for Ph.D.

- A minimum of a baccalaureate degree (Master’s degree preferred) from an accredited college or university (preferred minimum GPA of 3.0)
- GRE preferred scores: 150 (verbal), 155 (quantitative), and 4.0 for (analytical writing)
- A completed Ph.D. application, including a statement of purpose (see below under Ph.D. admission requirements for details regarding the statement of purpose)
- Three academic letters of recommendation
- TOEFL scores (minimum 550 paper-based, 213 computer-based, 80 internet-based) International students only

STATEMENT OF PURPOSE

The essay is a critical piece of the admissions process. We will evaluate both the content of the essay and your writing skills in considering your application. All applicants should write an essay of 1000 words or less. In this essay, please address the following questions:

- What is it about epidemiology that appeals to you?
- What are your long-term career goals?
- What area of research do you wish to emphasize and why?

Applicants should also include any additional information about their interests, prior background, or special circumstances which may be helpful to the Admissions Committee in evaluation of the application.

Students interested in applying for the Ph.D. in epidemiology must:

- Complete the WVU graduate application and submit with the processing fee
  - https://app.applyyourself.com/AYApplicantLogin/ApplicantConnectLogin.asp?id=wvugrad
- Submit official school transcripts and official GRE/TOEFL scores to:

  WVU Admissions and Records
  PO Box 6009
  Morgantown, WV 26506-6009
  (304) 293-2121

  - Complete the Ph.D. application online and indicate epidemiology as your preference by visiting: http://publichealth.hsc.wvu.edu/epidemiology/Academics/PhD-Degree
  - Submit three academic letters of recommendation and CV/Resume

You may mail your recommendation letters and CV/Resume to:

  WVU School of Public Health
  Ph.D. Admissions
  PO Box 9190
  One Medical Center Drive
  Morgantown, WV 26506

Fall Admissions Only: Fully completed applications received by February 15 are considered.

Overview of MPH in Epidemiology Curriculum

Students in the MPH program in Epidemiology will complete a total of forty-two credit hours (sixteen credit hours of School of Public Health core courses, two credit hours of Seminar, eighteen credit hours of departmental required courses, and six credit hours of elective courses). The culminating
experience, taken over the last two semesters, requires completing a proposal (two credit hours), implementing a research-based practicum project (six credit hours), and submitting a publishable paper and poster. This degree will typically take four semesters to complete.

DEPARTMENT OF EPIDEMIOLOGY MASTER LEVEL COURSES

MPH Core Curriculum:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOS 601</td>
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<td>EPID 610</td>
<td>Principles of Epidemiology</td>
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<tr>
<td>HPML 601</td>
<td>Foundations of Health Policy</td>
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<td>OEH 601</td>
<td>Environmental Health</td>
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</tr>
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<td>SBHS 601</td>
<td>Social and Behavioral Theory</td>
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MPH Concentration Curriculum:

<table>
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<th>Course</th>
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<tbody>
<tr>
<td>BIOS 603</td>
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<tr>
<td>BIOS 611</td>
<td>Data Management and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>EPID 611</td>
<td>Advanced Epidemiologic Theory</td>
<td>3</td>
</tr>
<tr>
<td>EPID 612</td>
<td>Applied Epidemiology for PH</td>
<td>3</td>
</tr>
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Practice Based/Culminating Experiences:

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<tr>
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<td>Epidemiology Capstone</td>
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Electives (6 hours):

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOS 621</td>
<td>Categorical Data Analysis HS</td>
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<tr>
<td>EPID 625</td>
<td>Principles of Clinical Trials</td>
<td></td>
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<tr>
<td>EPID 760</td>
<td>Demography/Transitions</td>
<td></td>
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<tr>
<td>EPID 763</td>
<td>Injury Epidemiology</td>
<td></td>
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<tr>
<td>EPID 764</td>
<td>Mind-body Medicine</td>
<td></td>
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<tr>
<td>EPID 765</td>
<td>EPID of Transportation Safety</td>
<td></td>
</tr>
<tr>
<td>EPID 766</td>
<td>Physical Activity Epidemiology</td>
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</tr>
<tr>
<td>OEH 622</td>
<td>Public Health Toxicology</td>
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<tr>
<td>OEH 732</td>
<td>Occupational Injury Prevention</td>
<td></td>
</tr>
<tr>
<td>EPID 740</td>
<td>Gene X Envrn Intrctns/Chrnc Ds</td>
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<tr>
<td>PUBH 586</td>
<td>Public Mental Health</td>
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<tr>
<td>PUBH 605</td>
<td>Intro to Global Public Health</td>
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<tr>
<td>SBHS 660</td>
<td>Survey Research Methods</td>
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Total Hours: 42

SUGGESTED PLAN OF STUDY

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOS 601</td>
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<tr>
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<td>EPID 696</td>
<td>1</td>
<td>OEH 601</td>
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Second Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
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<tr>
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<td>3 EPID 629</td>
<td>3</td>
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<tr>
<td>HPML 601</td>
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<td>3 ELECTIVE</td>
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<tr>
<td>PUBH 622</td>
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</tbody>
</table>
The MPH degree will be awarded based on successful completion of all academic requirements and demonstrated achievement of competencies. The department chair using a faculty panel will review competency performance evidence and based on the evidence reviewed, determine if the student has achieved the expected competencies. If a determination is made that competencies have not been achieved, the department chair will inform the student what must be accomplished to demonstrate achievement and therefore be recommended for awarding of the MPH degree. This may include taking additional courses.

Overview of Epidemiology Ph.D. Curriculum

The Doctor of Philosophy (Ph.D.) in epidemiology prepares students for careers in research, teaching, and consulting. Students develop research and teaching skills in epidemiology through coursework and practice opportunities. The curriculum provides rigorous and comprehensive training in epidemiologic methods for clinical and population-based research including study design, statistical analysis, and interpretation of results, as well as research areas of focus for epidemiologic research including chronic diseases, infectious diseases, injury, and gene by environment interactions. The program’s etiologic orientation is based on the premise that knowledge of genetic, physiologic, behavioral, and environmental factors contribute to understanding the underlying causes of complex human diseases needed to develop and evaluate effective preventive and treatment measures.

Ph.D. in Epidemiology Competencies

- Design investigations of acute and chronic conditions, as well as other adverse health outcomes in targeted populations
- Analyze and evaluate data from epidemiologic investigations and disease and injury surveillance systems
- Evaluate health behaviors and outcomes in populations by such variables as age, sex, race/ethnicity, socioeconomic status, and disability
- Critically evaluate results of epidemiologic studies, including study design, analysis results, and conclusions
- Prepare written and oral reports and presentations to effectively communicate to professional audiences, policymakers, and the general public
- Prepare research proposals for extramural peer-reviewed funding
- Promote and model ethical conduct in epidemiologic practice
- Bring epidemiologic perspectives to the development and analysis of public health policies

Students who have not earned a relevant master’s or professional degree may still be admitted to the doctoral program; however, these students are required to complete basic public health/epidemiology courses at the master’s level in the Department of Epidemiology before they begin their doctoral coursework. This may add one to two years to the program depending on their preparation. These applicants should still apply directly to the Ph.D. program.

CURRICULUM

Students in the Ph.D. in Public Health Sciences program in epidemiology will complete a total of 114 credit hours, of which fifty-seven are dedicated toward research. The first two years of the program emphasize research and statistical methods complemented by theoretical and process-oriented coursework relevant to epidemiology. The last two years will largely be dedicated to dissertation research.

EPIDEMIOLOGY PH.D. REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EPID 625</td>
<td>Principles of Clinical Trials</td>
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<tr>
<td>EPID 710</td>
<td>Adv Principles-Epidemiology</td>
<td>3</td>
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<tr>
<td>EPID 711</td>
<td>Adv Epidemiologic Theory</td>
<td>3</td>
</tr>
<tr>
<td>EPID 712</td>
<td>Quantitative Methods-Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>EPID 796</td>
<td>Graduate Seminar</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 603</td>
<td>Applied Biostatistics 2</td>
<td>3</td>
</tr>
<tr>
<td>BIOS 604</td>
<td>Applied Biostatistics 3</td>
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<td>BIOS 610</td>
<td>Intermediate Biostatistics</td>
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<td>BIOS 611</td>
<td>Data Management and Reporting</td>
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<td>SBHS 601</td>
<td>Social and Behavioral Theory</td>
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<td>SBHS 660</td>
<td>Survey Research Methods</td>
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<td>SBHS 701</td>
<td>Public Health Grant Writing</td>
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<td>SBHS 712</td>
<td>Qualitative Research Methods</td>
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<tr>
<td>BMS 700</td>
<td>Scientific Integrity</td>
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<td>BMS 720</td>
<td>Scientific Writing</td>
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<tr>
<td>C&amp;I 789</td>
<td>Teaching In Higher Education</td>
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</table>
Epidemiology

Epidemiology (EPID 797) Research

Teaching Practicum (EPID 790)

Electives - Select from the following:

- EPID 740: Gene X Envrm Intrctns/Chrnc Ds
- EPID 745: Epigenetics/Systems Biology
- EPID 760: Demography/Transitions
- EPID 763: Injury Epidemiology
- EPID 764: Mind-body Medicine
- EPID 765: EPID of Transportation Safety
- EPID 766: Physical Activity Epidemiology

Total Hours: 114

ELECTIVES

Students will complete a minimum of nine credit hours of electives during their Ph.D. program. These may be selected from among the department’s, School of Public Health’s, or university’s many course offerings. These courses will be discussed and approved with the faculty advisor.

TEACHING PRACTICUMS

Students will spend two semesters in a mentored relationship with a faculty member, assisting with the implementation of a course.

COMPREHENSIVE EXAMS

The Qualifying Examination is the capstone experience for Ph.D. program coursework. Successful completion of the examination signifies competence in the field of public health sciences and indicates readiness to engage in independent research. The Qualifying Examination consists of both a written and oral component. Qualifying exams should not include testing on content of the dissertation. The oral defense of the dissertation proposal will serve that purpose. The Qualifying Examination is planned and administered by the five-member dissertation committee, under the direction of the committee chairperson. If necessary and at the discretion of the Program Director, another faculty member may be appointed to serve on the committee.

The oral portion of the exam may not be attempted until the written component is completed and must be attempted within two academic weeks of the written component. Students are expected to take the qualifying exam during the summer sessions between their fourth and fifth academic semesters. However, the written component must be completed no later than the second week in July. Students are not eligible to begin their dissertation or enroll in dissertation hours until they have successfully completed the Qualifying Examination.

RESEARCH

Students will participate in research rotations during their first year, meeting and working with research faculty with similar interests in order to develop mentorships for dissertation research. A total of fifty-seven credit hours of rotations and dissertation research will be completed during the program.

THE DISSERTATION PROPOSAL, DEFENSE, AND APPROVAL

Although students may choose to pursue a traditional dissertation format, the majority of Ph.D. students format their dissertation using the Three Journal Article Format (JAF). The decision of which format to use is something that students should discuss with chairperson of their dissertation committee. As a reminder, students will not be allowed to defend their dissertations until they have at least one first-authored publication in any form of acceptance, based on their Ph.D. dissertation, in a peer-reviewed journal by the time of the dissertation defense. Note: This required publication does not necessarily need to be one of the three articles generated through the JAF dissertation format.

SUGGESTED PLAN OF STUDY

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
<th>Hours</th>
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<tr>
<td>BIOS 610</td>
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<td>3 BMS 720</td>
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<tr>
<td>EPID 797</td>
<td>1 EPID 712</td>
<td>3 C&amp;I 789</td>
<td>3</td>
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<tr>
<td>EPID 710</td>
<td>3 SBHS 701</td>
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<td>2</td>
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<td>BIOS 611</td>
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<td>BMS 700</td>
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<tr>
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<td></td>
<td><strong>15</strong></td>
<td><strong>14</strong></td>
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Second Year

<table>
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<th>Fall</th>
<th>Hours Spring</th>
<th>Hours Summer</th>
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<tr>
<td>BIOS 604</td>
<td>3 EPID 625</td>
<td>3 EPID 797</td>
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COURSES

EPID 601. Public Health Epidemiology. 3 Hours.
PR or CONC: BIOS 601. Examines mortality and morbidity trends, disease and injury models, data sources classification, measures of frequency and association, research design, causal assessment, data interpretation, and screening from an epidemiological perspective.

EPID 610. Principles of Epidemiology. 3 Hours.
PR: BIOS 601. An intensive introduction to epidemiological concepts and methods for masters students intending to engage in, collaborate in, or interpret the results of epidemiologic studies. Familiarity with biomedical concepts may be needed.

EPID 611. Advanced Epidemiologic Theory. 3 Hours.
PR: BIOS 610 and EPID 610. An in-depth examination of the theory of epidemiology and its application to general epidemiologic research, including problem conceptualization, sound study design, research conduct, and interpretation of findings with depth of understanding expected of masters-level students.

EPID 612. Applied Epidemiology for PH. 3 Hours.
PR: BIOS 601 and EPID 610 and EPID 611. Applied quantitative methods essential to core training of epidemiology majors. Covering analysis of large public health datasets, methods of summarizing results, calculation of confidence intervals, standardization, calculation of measures of association.

EPID 625. Principles of Clinical Trials. 3 Hours.
Students will apply the core elements of clinical trials and learn to address their major challenges by critically evaluating clinical trial literature, designing original clinical trials and developing grant proposals in clinical trial research.

EPID 627. Epidemiology Proposal. 2 Hours.
Students develop a proposal for an epidemiology practicum project (applied or research-based) that integrates public health skills, theory and knowledge and is supported by a faculty-review process, (part one of the MPH culminating experience).

EPID 628. Epidemiology Practicum. 6 Hours.
PR: EPID 627. Students implement the substantive public health project (planned in proposal course) under the mentorship of faculty and preceptors. Results are reported through a formal paper and a poster presentation to faculty, students and guests.

EPID 629. Epidemiology Capstone. 3 Hours.
PR: EPID 610 and EPID 611 and EPID 612. The Epidemiology Capstone is the culminating experience for MPH students in epidemiology. It requires students to demonstrate their ability to synthesize and integrate the core public health and epidemiology knowledge and competencies via a paper and oral presentation. Course will be graded on a Pass/Fail Basis.

EPID 664. Chronic Disease Epidemiology. 3 Hours.
PR: EPID 610 or consent. A broad introduction to the epidemiology of chronic non-infectious diseases, including diabetes mellitus, hypertension, cardiovascular disease, cancer, osteoporosis, Alzheimer's disease, and the role of various lifestyle risk factors for these diseases.

EPID 665. Injury Control Seminar. 1 Hour.
A survey of current research practice in injury prevention and control (IPC). Local and regional researchers and practitioners provide students a unique perspective on IPC research, interventions, programs, and policies.

EPID 691A-Z. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation in advanced topics that are not covered in regularly scheduled courses.
EPID 695. Independent Study. 1-6 Hours.
Faculty-supervised study of topics not available through regular course offerings.

EPID 696. Graduate Seminar. 1 Hour.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

EPID 710. Adv Principles-Epidemiology. 3 Hours.
PR or CONC: BIOS 610. An intensive introduction to epidemiological concepts and methods for PhD students intending to engage in, collaborate in, or interpret the results of epidemiologic studies. Familiarity with biomedical concepts may be needed.

EPID 711. Adv Epidemiologic Theory. 3 Hours.
PR: EPID 710 and BIOS 610. An in-depth examination of the theory of epidemiology and its application to general epidemiologic research, including problem conceptualization, sound study design, research conduct, and interpretation of findings with depth of understanding expected of doctoral students.

EPID 712. Quantitative Methods-Epidemiology. 3 Hours.
PR: EPID 610 or consent. Quantitative methods essential to core training of epidemiology majors, covering crude analysis of categorical and continuous variables, confounding, sensitivity analysis, effect measure modification, logistic regression, Poisson regression and negative binomial regression, and survival analysis.

EPID 714. Molecular/Genetic Epidemiology. 3 Hours.
PR: EPID 710. Students are introduced to molecular genetic epidemiology with a focused exposure to areas of emphasis, linkage and association-analysis with exposure to tools needed to critically review literature in genetic epidemiology and human genetics.

EPID 715. Advanced Epidemiology. 3 Hours.
PR: EPID 711. Causality and threats to validity in epidemiologic research are presented, focusing on assessment and control of bias, including selection bias, information bias and confounding. Assessment and control of effect modification (interaction) are included.

EPID 740. Gene X Envrn Intrctns/Chrnc Ds. 3 Hours.
The goal of this course is to inform students about the role of environmental factors in gene expression related to complex diseases such as CVD and cancer.

EPID 745. Epigenetics/Systems Biology. 3 Hours.
Course provides overview of ways tht non-genetic factors influence and interact with gene expression; comparing, contrasting systems biology approaches to more traditional reductionist methods for investigating complex phenotypes.

EPID 760. Demography/Transitions. 3 Hours.
PR: EPID 710 or consent. Life table and other population-based techniques and approaches to studying international and sociodemographic patterns and differentials in mortality morbidity, and disability.

EPID 761. Cardiovascular Epidemiology. 3 Hours.
PR: EPID 710. An in-depth introduction to epidemiological methods in studying cardiovascular disease and related conditions, including diabetes, hypertension, chronic kidney disease, sleep-disordered breathing. In addition, "classical" as well as novel cardiovascular risk factors will be covered.

EPID 762. Cancer Epidemiology. 3 Hours.
PR: EPID 710 or consent. This course is intended for students considering cancer epidemiology as a substantive focus. Providing students fundamental concepts and methodology in cancer epidemiology and reviewing current epidemiologic research in cancer from a variety of perspectives.

EPID 763. Injury Epidemiology. 3 Hours.
PR: EPID 711. In-depth application of epidemiology to injury. This course covers how to use select epidemiologic methods to study injury as a public health problem, focusing on issues specific to the prevention and control of injury.

EPID 764. Mind-body Medicine. 3 Hours.
PR: EPID 710 or consent. Using real world examples, this course covers the complex relationships between psychosocial factors and chronic illness; major mind-body practices and common clinical applications of these practices; the effects of these practices on specific health outcomes.

EPID 765. EPID of Transportation Safety. 3 Hours.
PR: EPID 712. A broad introduction of epidemiological designs and methods in transportation safety in the context of specific road users, including inexperienced and mature drivers, passengers, large-truck drivers, pedestrians, bicyclists, motorcyclists, and all-terrain vehicle riders.

EPID 766. Physical Activity Epidemiology. 3 Hours.
PR: EPID 710. This course provides an in-depth examination of the epidemiology of physical activity. The course builds upon basic epidemiological methods and explores the relationship between physical activity and chronic diseases.

EPID 767. Maternal/Child Health Epidmlgy. 3 Hours.
PR: EPID 710 and BIOS 610. A broad introduction of epidemiological designs and methods in maternal and child health topics including prenatal care, maternal complications, preterm birth, low birth weight, fetal, neonatal/infant mortality, congenital malformations, prenatal substance exposure and development disabilities.

EPID 768. Environmental Epidemiology. 3 Hours.
PR: EPID 710. A broad introduction of epidemiological methods to study environmental determinants of disease will be presented in the context of studies of specific health outcomes, including: cancer, non-malignant respiratory diseases, adverse reproductive outcomes, and neurologic diseases.
EPID 769. Occupational Epidemiology. 3 Hours.
PR: BIOS 610 for MPH students and EPID 710 for PhD students. Application of epidemiology to occupational disease and injury. Occupational hazards, including concepts of exposure and dose, as well as study design considerations unique to occupational studies, especially design challenges and analytic implications, will be covered.

EPID 770. Nutritional Epidemiology. 3 Hours.
This course addresses the role of nutrition and food components in primary, secondary, and tertiary disease prevention. Through cooperative learning, students will practice critical thinking skills in the study of nutrition in chronic disease prevention.

EPID 771. Infectious Diseases Epidemiology. 3 Hours.
PR: EPID 610 or EPID 710. This course is designed to cover the basic epidemiological, public health, economic, surveillance, prevention and other issues related to infectious diseases. The focus includes the major infectious diseases experienced globally as well as those specific to the United States.

EPID 790. Teaching Practicum. 1-3 Hours.
PR: Consent. Supervised practice in college teaching of (subject matter determined by department/division/college/school offering the course). NOTE: This course is intended to insure that graduate assistants are adequately prepared and supervised when they are given college teaching responsibility. It also provides a mechanism for students not on assistantships to gain teaching experience.

EPID 796. Graduate Seminar. 1 Hour.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

EPID 797. Research. 1-15 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading will be S/U).