Public Health

Program Overview

Public health is one of the fastest growing majors in undergraduate education and covers the five core public health disciplines: biostatistics, environmental health sciences, epidemiology, health policy and management, and social and behavioral sciences.

The public health major emphasizes problem solving skills, critical thinking, practical application, career exploration and an understanding of both clinical- and population-based ethics. Early in the program, students will build a strong foundation of knowledge in the natural and social sciences and become familiar with cultural and socioeconomic differences among populations. Further study will provide students with the knowledge and skills needed to identify evidence-based techniques for disease prevention and promotion of health, both at home and from a global perspective.

Preparing Students for Future Opportunities

The Community and Population Health Area of Emphasis prepares students for entry into social science-based and public health graduate programs.

The Public Health Sciences Area of Emphasis prepares students for entry into graduate programs in public health sciences or clinical professional degree programs.

The public health program also prepares graduates for entry-level public health positions in a wide array of agencies involved in public and private health, including local, regional and state health departments, consulting and advocacy organizations, healthcare organizations and government agencies.

At the conclusion of the program, students in the public health program will be able to:

- Provide a solid foundation of the historic milestones, core disciplines and core functions of public health.
- Increase appreciation of human cultures and social determinants of health as they relate to individual and population health.
- Explain the impact of natural processes and systems on health and patterns of disease and injury among diverse populations.
- Develop proficiency in critical and creative thinking, analysis and synthesis of information to inform, assist and promote public health.
- Enhance oral and written communication skills needed to effectively disseminate knowledge and information to address current public health issues.
- Engage students in public health-related activities with local, regional, national and/or global organizations.

PUBLIC HEALTH PRACTICE AREA OF EMPHASIS
- Recognize how environmental and occupational factors impact the health status of individuals and populations.
- Apply skills in biostatistical and epidemiologic methods in public health practice and research.

COMMUNITY AND POPULATION HEALTH AREA OF EMPHASIS
- Recognize how social and behavioral factors impact the health status of individuals and populations.
- Identify appropriate theories, methods, strategies and policies to address the public health needs of communities and populations.

Admission Guidelines for the School of Public Health's Undergraduate Program

SPH Admissions for BS in Public Health

The WVU School of Public Health (SPH) will admit students for fall and spring semesters.

Direct admissions relates to students applying upon graduation from high school and those with no previous undergraduate credits. Applicants who meet the minimum standards (see below) will be accepted directly into the program by WVU Admissions.

Students who do not meet direct admit minimum standards, but who are interested in pursuing a degree in public health, have two options:

1) apply to transfer into the program via a WVU Academic Status Update form once a college GPA of 2.5 is established.

2) apply for pre-public health status by meeting those guidelines listed below. Students in Pre-Public Health can take the same courses and can request access to the same academic advising as majors do. However, these students will have to meet internal transfer requirements of a 2.5 college GPA within 2 semesters of entering this program.

External transfer students (those who have completed undergraduate credits at another institution) who meet the transfer admission guidelines (see below) should apply to WVU as transfer students and will be accepted directly into the program by WVU Admissions.

Admission Guidelines
# Students are eligible for **direct freshman admission** if they meet these minimum guidelines:

- 3.0 Cumulative High School GPA

**OR**

- ACT of 21 (superscored) and 2.75 Cumulative High School GPA

**OR**

- SAT of 990 (superscored) and 2.75 Cumulative High School GPA

# Students are eligible for admission into **pre-public health** if they meet these minimum guidelines:

- 2.75 Cumulative High School GPA

**OR**

- ACT of 19 (superscored) and 2.5 Cumulative High School GPA

**OR**

- SAT of 910 (superscored) and 2.5 Cumulative High School GPA

# **Internal (WVU) and External transfer students** who have completed undergraduate coursework at WVU or another institution of higher education prior to applying to the Public Health major are eligible if they meet the following minimum guidelines:

- 2.5 Cumulative Undergraduate GPA

Please note, the School of Public Health reserves the right to limit student enrollment in the program but cutting off admissions based on school-wide capacity for new students.

Click the link below to view the corresponding AOE requirements and Suggested Plans of Study.

- Community and Population Health (p. 4)
- Public Health Sciences (p. 3)

### GENERAL EDUCATION FOUNDATIONS

Please use this link to view a list of courses that meet each GEF requirement. ([http://registrar.wvu.edu/gef](http://registrar.wvu.edu/gef))

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

#### General Education Foundations

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
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<tbody>
<tr>
<td>F1 - Composition &amp; Rhetoric</td>
<td>3-6</td>
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<tr>
<td>ENGL 101</td>
<td></td>
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<tr>
<td>&amp; ENGL 102</td>
<td></td>
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<tr>
<td>or ENGL 103</td>
<td></td>
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<tr>
<td>Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research</td>
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<tr>
<td>Accelerated Academic Writing</td>
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<tr>
<td>F2A/F2B - Science &amp; Technology</td>
<td>4-6</td>
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<tr>
<td>F3 - Math &amp; Quantitative Skills</td>
<td>3-4</td>
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<tr>
<td>F4 - Society &amp; Connections</td>
<td>3</td>
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<tr>
<td>F5 - Human Inquiry &amp; the Past</td>
<td>3</td>
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<tr>
<td>F6 - The Arts &amp; Creativity</td>
<td>3</td>
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<tr>
<td>F7 - Global Studies &amp; Diversity</td>
<td>3</td>
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<tr>
<td>F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)</td>
<td>9</td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>31-37</td>
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Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

### Degree Requirements

Students are required to maintain a cumulative GPA of 2.5

#### General Education Foundations Requirements
Public Health Sciences Area of Emphasis Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHPR 440</td>
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<tr>
<td>PUBH 311</td>
<td>3</td>
</tr>
<tr>
<td>PUBH 423</td>
<td>3</td>
</tr>
<tr>
<td>PUBH 442</td>
<td>3</td>
</tr>
<tr>
<td>PUBH/CHPR Elective</td>
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<tr>
<td>Total Hours</td>
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Suggested Plan of Study for Public Health Sciences Area of Emphasis

First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PUBH 199</td>
<td>1 PUBH 202</td>
<td>3</td>
</tr>
<tr>
<td>WVUE 191</td>
<td>1 ENGL 102 (GEF 1)</td>
<td>3</td>
</tr>
<tr>
<td>PUBH 101</td>
<td>3 GEF 2</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 101 (GEF 1)</td>
<td>3 GEF</td>
<td>3</td>
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<tr>
<td>GEF</td>
<td>3 GEF</td>
<td>3</td>
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<tr>
<td>GEF</td>
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Second Year

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<tr>
<th>Fall</th>
<th>Hours Spring</th>
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<tbody>
<tr>
<td>PUBH 211</td>
<td>3 PUBH 201</td>
<td>3</td>
</tr>
<tr>
<td>PUBH 241</td>
<td>3 PUBH 331</td>
<td>3</td>
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<tr>
<td>GEF</td>
<td>3 Minor/Elective</td>
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<td>Minor/Elective</td>
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Third Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Hours Spring</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PUBH 243</td>
<td>3 PUBH 442</td>
<td>3</td>
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</tbody>
</table>
PUBH 222 3 PUBH Elective 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3

15 15

Fourth Year

Fall Hours Spring Hours
CHPR 440 3 PUBH 423 3
PUBH 311 3 PUBH 496 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3

15 15

Total credit hours: 120

COMMUNITY AND POPULATION HEALTH AREA OF EMPHASIS REQUIREMENTS

Minimum grade of C- or higher required in all AoE courses

CHPR 305 Disease Across the Life Span 3
PUBH 333 Comparative Health Systems and Policy 3
PUBH 352 Introduction to Social and Behavioral Science and Practice 3
PUBH 454 Introduction to Public Health Research Methods 3
PUBH/CHPR Elective 3

Total Hours 15

SUGGESTED PLAN OF STUDY FOR COMMUNITY AND POPULATION HEALTH AREA OF EMPHASIS

First Year

Fall Hours Spring Hours
PUBH 199 1 PUBH 202 3
WVUE 191 1 ENGL 102 (GEF 1) 3
PUBH 101 3 GEF 2 4
ENGL 101 (GEF 1) 3 GEF 3
GEF 3 GEF 3
GEF 3

14 16

Second Year

Fall Hours Spring Hours
PUBH 211 3 PUBH 201 3
PUBH 241 3 PUBH 331 3
GEF 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3

15 15

Third Year

Fall Hours Spring Hours
PUBH 243 3 PUBH Elective 3
CHPR 305 3 Minor/Elective 3
PUBH 222 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3
Minor/Elective 3 Minor/Elective 3

15 15
Major Learning Goals

PUBLIC HEALTH

The Public Health major will:

• Provide a solid foundation of the historic milestones, core disciplines and core functions of public health.
• Increase appreciation of human cultures and social determinants of health as they relate to individual and population health.
• Explain the impact of natural processes and systems on health and patterns of disease and injury among diverse populations.
• Develop proficiency in critical and creative thinking, analysis and synthesis of information to inform, assist and promote public health.
• Enhance oral and written communication skills needed to effectively disseminate knowledge and information to address current public health issues.
• Engage students in public health-related activities with local, regional, national and/or global organizations.

PUBLIC HEALTH PRACTICE AREA OF EMPHASIS

• Recognize how environmental and occupational factors impact the health status of individuals and populations.
• Apply skills in biostatistical and epidemiologic methods in public health practice and research.

COMMUNITY AND POPULATION HEALTH AREA OF EMPHASIS

• Recognize how social and behavioral factors impact the health status of individuals and populations.
• Identify appropriate theories, methods, strategies and policies to address the public health needs of communities and populations.

PUBH 101. Introduction to Public and Community Health. 3 Hours.
This course will provide students with an overview of the principles and practice of public and community health. Students will learn about the history, core function and essential services of public health, as well as engage in discussions about current public health events and issues.

PUBH 199. Orientation to Public Health. 1,2 Hour.
Orientation to degree programs and requirements, departmental resources, curriculum options, student responsibilities, and opportunities.

PUBH 201. Global Perspectives of Public Health. 3 Hours.
This introduction to global public health will strengthen students’ perspectives and understanding of disease prevention and treatment issues in westernized and developing/underdeveloped countries. Topics include health disparities, economic/political structures/systems impacting health, maternal and child health (including family planning), socio-cultural factors affecting health care delivery and the global burden of infectious and chronic diseases, injuries and disasters.

PUBH 202. Social Determinants of Health. 3 Hours.
The purpose of this course is to provide an introduction to the social factors/determinants that influence health. Theoretical and methodological approaches to the study of social determinants will be discussed from a social ecological perspective. The course is designed to help students develop basic literacy regarding social concepts and processes that influence health status and health disparities.

PUBH 211. Biostatistics for Population Health. 3 Hours.
PR: MATH 121 or higher and PUBH 101. This course provides students with an introduction to statistical concepts that are important for solving real-world public health problems. This course will present statistical principles and associated scientific reasoning underlying public health practice and health policy decision-making. Topics include data visualization, summary statistics, statistical inference, and strategies for articulating and evaluating claims using statistical constructs.

PUBH 222. Epidemiology for Public Health. 3 Hours.
PR or CONC: PUBH 211 or STAT 211. This introductory course explores the historical roots of the practice of epidemiology. The course will provide students with a foundation in the study of the distributions of health-related states or events (including injury and disease) in human populations and the control of these health-related problems.
PUBH 241. Biological Basis of Public Health. 3 Hours.
PR: PUBH 101 and ((BIOL 101 and BIOL 103) or (BIOL 102 and BIOL 104) or higher). Provides a basic understanding of human changes associated with or resulting from those chronic or infectious diseases or injuries that are of public health importance in the US and globally. Students will: 1) understand core concepts of health and disease, 2) recognize common infectious diseases and their influence on public health, and 3) identify chronic disease burden.

PUBH 243. Issues in Environmental Health. 3 Hours.
PR: PUBH 101. Provides an overview of environmental and occupational issues relating to air, water, and solid waste as they relate to human health. Basic environmental health concepts, technologies and underlying data will be examined to better understand local, national and global solutions to environmental health problems.

PUBH 293. 1-6 Hours.
Investigation of topics not covered in regularly scheduled courses.

PUBH 311. Health Research Data Management and Reporting. 3 Hours.
PR: PUBH 211. This course will provide an introduction to data management and reporting principles, and the associated tools that are instrumental in public health research. Topics include data documentation, data structure, relational database theory, data manipulation, basic logic for programming, literate programming, and reporting.

PUBH 331. Introduction to Health Policy. 3 Hours.
PR: PUBH 101. This course provides an overview of the inner workings of health care policy making, from the legislative process to socioeconomic impacts, with both historical and modern perspectives. Students will explore factors that shape the United States health care system and policy, such as values, models, and stakeholders, and compare them to other countries for international context.

PUBH 333. Comparative Health Systems and Policy. 3 Hours.
PR: PUBH 331. In this course, students will examine the structure of healthcare systems in selected countries worldwide. Specific attention is paid to the developmental history of the national healthcare systems, financing, and delivery infrastructure. The impact of international relations is also examined.

PUBH 334. Emergency Preparedness for Public Health. 3 Hours.
This course provides an overview of the dimensions of disasters and emergencies through the lens of Public Health professionals with special focus on the rural environment and uses the Homeland Security Exercise Evaluation Program (HSEEP) model for the final exercise. Students completing this course will also complete several FEMA certifications during the course.

PUBH 352. Introduction to Social and Behavioral Science and Practice. 3 Hours.
PR: PUBH 101 and PUBH 202. Introduces the historical and philosophical background of the social and behavioral sciences, covering theories of behavioral science applied to health behaviors; socio-cultural factors of disease etiology, prevention and population health; individual, group, community, and technology-based strategies for health behavior change; and current issues in behavioral sciences for health promotion including its application to achieving the Healthy People 2020 goals.

PUBH 423. Introduction to Modern Epidemiologic Research. 3 Hours.
PR: PUBH 222. This intermediate course will provide students with a foundation in the research tools utilized to explore the determinants of health-related states or events (including injury and disease) in human populations.

PUBH 442. Public Health in the Workplace. 3 Hours.
PR: PUBH 222 and PUBH 243. Overview of workplace health issues as they affect human health, including exposure to chemical, physical, biological and mechanical hazards. Basic occupational safety and health concepts, technologies and underlying data will be examined to better understand the potential solutions for workplace safety and human health issues.

PUBH 454. Introduction to Public Health Research Methods. 3 Hours.
PR: PUBH 222 and PUBH 352. This course provides an overview of public and community health research methods. Content includes the purpose and foundations of research, identifying and framing topic of interest and formulating research questions, ethical standards and reviews, study populations and samples, study designs, question construction and questionnaire development, data collection and analyses approaches, and the reporting and dissemination of findings.

PUBH 491. Professional Field Experience. 1-18 Hours.
PR: Consent. (May be repeated up to a minimum of 18 hours.) Prearranged experiential learning program to be planned, supervised, and evaluated for credit by faculty and field supervisors. Involves temporary placement with public or private enterprise for professional competence development.

PUBH 495. Independent Study. 1-6 Hours.
Faculty supervised study of topics not available through regular course offerings.

PUBH 496. Senior Thesis. 1-3 Hours.
PR: Consent.