The Public Health Science program includes a strong curriculum in science and public health courses, such as biostatistics, epidemiology, environmental health, and global health. Students will have the opportunity for individual exploration in public health through electives, laboratory experiences, optional internships, and a culminating interdisciplinary capstone course. As a collaborative degree involving multiple scholarly disciplines, courses offered by this program may be found under the following acronyms: PHSC, SPHL, HLTH, KNES, EPIB, MIEH and HLSA.

The degree effectively prepares students to pursue exciting careers in allied health, medical, and public health fields as well as post-baccalaureate professional and academic degrees.

The degree is offered at both the College Park and Shady Grove campuses.

Program Objectives
The Public Health Science Bachelor of Science degree is an interdisciplinary program designed to provide students with the educational foundation required to effectively address local, national and global issues within the public health arena.

Program Learning Outcomes
1. Discuss the history and philosophy of public health as well as its core values, concepts, and functions across the globe and in society.
2. Use basic public health concepts, methods, and tools for data collection and analysis.
3. Identify the major health-related needs and concerns of populations and formulate basic processes, approaches, and interventions as possible solutions.
4. Describe the underlying science of human health and disease including opportunities for promoting and protecting health across the lifespan.
5. Examine the socio-economic, behavioral, biological, environmental and other factors that impact human health and contribute to health disparities.
6. Demonstrate the fundamental concepts and features of project implementation, including planning, assessment, and evaluation.
7. Compare and contrast the fundamental characteristics and organizational structures of the health systems of the United States and other countries.
8. Characterize the basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public policy.
9. Illustrate the basic concepts of public health specific writing and communication.
10. Interpret and synthesize scientific knowledge to propose evidence-based approaches and solutions to public health problems.

Requirements
In order to graduate with a Bachelor of Science degree in Public Health Science, students must complete 120 credits, 74 of which are specific to the Public Health Science degree. Students must earn a minimum grade of C- or higher in all Public Health Science major-required coursework.

Course | Title | Credits
---|---|---
MATH120 | Elementary Calculus I | 3
BSCI170 & BSCI171 | Principles of Molecular & Cellular Biology and Principles of Molecular & Cellular Biology Laboratory | 4
BSCI201 | Human Anatomy and Physiology I | 4
BSCI202 | Human Anatomy and Physiology II | 4
CHEM131 & CHEM132 | Chemistry I - Fundamentals of General Chemistry and General Chemistry I Laboratory | 4
CHEM231 & CHEM232 | Organic Chemistry I and Organic Chemistry Laboratory I | 4
BSCI222 | Principles of Genetics | 4
BSCI223 | General Microbiology | 4

Public Health Science Foundation Courses
SPHL100 | Foundations of Public Health | 3
HLTH366 | Behavioral and Community Issues in Public Health | 3
EPIB301 | Epidemiology for Public Health Practice | 3
EPIB315 | Biostatistics for Public Health Practice | 3
HLTA300 | Introduction to Health Policy and Services | 3
MIEH300 | A Public Health Perspective: Introduction to Environmental Health | 3
MIEH400 | Introduction to Global Health | 3
KNES320 | Physiological Basis of Physical Activity and Human Health | 4
PHSC415 | Essentials of Public Health Biology: The Cell, The Individual, and Disease | 3
PHSC497 | Public Health Science Capstone | 3

Public Health Science Options Courses
Select from the following: 12
EPIB330 | The Coming Plague: Public Health Perspectives | 3
EPIB400 | Obesity: An Epidemiologic Perspective | 3
FGSM320 | Public Health Policy | 3
FMSC310 | Maternal, Child and Family Health | 3
FMSC460 | Violence in Families | 3
HLTH371 | Communicating Safety and Health | 3
HLTH377 | Human Sexuality | 3
HLTH424 | Lesbian, Gay, Bisexual & Transgender Health | 3
HLTH434 | Introduction to Public Health Informatics | 3
HLTH460 | Minority Health | 3
HLTH471 | Women's Health | 3
HLTA484 | Redesigning Health Care: Developing a Clinic to Meet Community Needs | 3
KNES460 | Physiology of Aging and the Impact of Physical Activity | 3
KNES461 | Exercise and Body Composition | 3
MIEH309 | Environmental Health Research | 3
Public Health Science Major

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MIEH321</td>
<td>Syphilis to SARS: Climate Change, Development and Emergence of Infectious Diseases</td>
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<tr>
<td>MIEH330</td>
<td>Environmental Justice, Racism, and Environmental Health Disparities: How where you live can kill you</td>
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<tr>
<td>MIEH331</td>
<td>The Built Environment, Sustainability, and Public Health: The Good, the Bad, and the Ugly</td>
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<tr>
<td>MIEH480</td>
<td>Introduction to Occupational Health</td>
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<td>PEER311</td>
<td>Peer Education Mental Health &amp; Wellness</td>
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<tr>
<td>PHSC389</td>
<td>Independent Research Study in Public Health Science</td>
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<tr>
<td>PHSC399</td>
<td>Public Health Science Internship</td>
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<td>PHSC402</td>
<td>Public Health Emergency Preparedness</td>
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<tr>
<td>PHSC405</td>
<td>Policy Advocacy and Public Health</td>
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<tr>
<td>PHSC410</td>
<td>Public Health Program Planning and Evaluation</td>
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<tr>
<td>PHSC412</td>
<td>Food, Policy, and Public Health</td>
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<tr>
<td>PHSC420</td>
<td>Vaccines and Immunology</td>
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<tr>
<td>PHSC425</td>
<td>Genetics, Genomics, and Public Health</td>
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<tr>
<td>PHSC426</td>
<td>Climate Change and Health</td>
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<tr>
<td>PHSC430</td>
<td>Public Health in the City: Perspectives on Health in the Urban Environment</td>
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Total Credits 74

1 The Public Health Science option courses build upon the Scientific and Public Health Science Foundation courses. The option courses are 300 and 400 level courses primarily offered within the School of Public Health. By choosing from these courses, students have an opportunity to customize their program. Students are encouraged to choose courses that best align with a particular career goal.

Four Year Plan

Click here (http://sph.umd.edu/content/four-year-plans) for roadmaps for four-year plans in the School of Public Health.

Additional information on developing a four-year academic plan can be found on the following pages:

- 4yearplans.umd.edu
- the Student Academic Success-Degree Completion Policy (https://academiccatalog.umd.edu/undergraduate/registration-academic-requirements-regulations/academic-advising) section of this catalog