General Education (20 – 39 credits)

(General Education Bulletin at: www.indiana.edu/~bulletin/iub)

**English Composition** (0 to 3 credits, C- minimum required)

Complete one of the following options:

- 3 CMLT-C 110 Writing the World
- 3 ENG-W 131 Elementary Composition
- 3 ENG-W 170 Projects in Reading and Writing
- 0 ENG-W 131 EX Elementary Composition Exemption

**Mathematical Modeling** (3 to 4 credits)

Complete one of the following options:

- 4 MATH-D 116 AND MATH-D 117 Intro to Finite Mathematics I-II
- 3 MATH-J 113 Introduction to Calculus with Applications
- 3 MATH-M 106 The Mathematics of Decision & Beauty
- 3 MATH-M or V or S 118 Finite Mathematics
- 3 MATH-M or V 119 Brief Survey of Calculus I
- 4 MATH-M 211 Calculus I
- 4 MATH-M 213 Accelerated Calculus

**Natural and Mathematical Sciences** (5 credits)

Complete 5 credits from the list of approved N&M courses in the IUB General Education Bulletin. At least one course must be a natural science (as indicated by an asterisk in the GENED bulletin).

- 3 MSCI
- 3 SPH
- 3 SPH
- 3 SPH

**Arts and Humanities** (6 credits)

Complete 6 credits from the list of approved A&H courses in the IUB General Education Bulletin.

- 3 HUM
- 3 HUM
- 3 HUM

**Social and Historical Studies** (6 credits)

Complete 6 credits from the list of approved S&H courses in the IUB General Education Bulletin.

- 3 HIST
- 3 HIST
- 3 HIST

**World Languages and Cultures** (0 to 14 credits)

Choose one of the following three options:

- Complete 6 credits of world culture courses from the list of approved WC courses in the IUB General Education Bulletin.
- Achieve competency in a single foreign language equal to successful completion of the four semester sequence in a world language.
- Complete a 6-credit International experience in an approved study abroad. A list of approved course choices may be found in the IUB General Education Bulletin.

**Major (65 - 72 credits)**

**Anatomy/Physiology Requirement** (3-10 credits)

Students must acquire at least 3 credits in Anatomy AND Physiology.

This requirement may be completed by taking the following course:

- 3 MSCI-M 115 Intro to Anatomy & Physiology

Alternatively, students may complete this requirement by completing the following individual Anatomy and Physiology courses:

- 3-5 ANAT-A 215 Basic Human Anatomy
- 3-5 CMLT
- 205 Structural Kinesiology
- 5 PHSL-P 215 Physiology

**Public Health Core** (15 credits, C- min req each course)

Complete each of the following courses:

- 3 SPH-B 366 Community Health
- 3 SPH-E 311 Introduction to Epidemiology
- 3 SPH-P 309 Public Health Administration
- 3 SPH-Q 381 Introduction to Biostatistics
- 3 SPH-V 241 (formerly V 351) Found of Environmental Hlth

**Required Epidemiology Courses** (20 credits, C- min req each course)

Complete each of the following courses:

- 3 SPH-E 250 Public Health Surveillance and Monitoring
- 3 SPH-E 350 Infectious Diseases: Outbreaks and Field Investigations
- 3 SPH-E 353 Distribution and Determinants of Chronic Diseases
- 3 SPH-E 358 Epidemiologic Methods: Concepts
- 3 SPH-E 359 Epidemiologic Methods: Applications
- 5 SPH-E 498 Field Experience in Epidemiology

**Additional Required Courses** (15 credits)

Complete each of the following courses:

- 3 BIOL-L 112 Foundations of Biology: Biol. Mechanisms
- 3 MATH-M 118 Finite Mathematics
- 3 SPH-H 494 Research & Evaluation Methods in Health & Safety
- 3 SPH-Q 400 Introduction to Biostatistical Computing
- 3 STAT-S 320 Introduction to Statistics
- 3 MATH-M 211 Calculus I
- 4 MATH-M 212 Calculus II
- 4 MATH-M 301 Linear Algebra and Applications

**Related Content** (C- min req in each course):

Complete ANY 12 credits from the following:

**Statistics and Mathematics**

- 3 MATH-M 211 Calculus I
- 4 MATH-M 212 Calculus II
- 4 MATH-M 301 Linear Algebra and Applications

* Generally fall only
** Generally spring only
3 MATH-M 303 Linear Algebra for Undergraduates \textit{N&M}  
\hspace{1cm} (P: M212; credit not given for both M301 and M303)  
3 MATH-M 311 Calculus III \textit{N&M}  
3 STAT-S 431 Applied Linear Models I*  
3 STAT-S 432 Applied Linear Models II**  
\textbf{Writing and Public Speaking}  
3 COLL-P 155 Public Oral Communication  
3 ENG-W 231 Professional Writing Skills  
\textbf{Behavioral and Community Health}  
3 PSY-P 101 Introductory Psychology I \textit{N&M}  
3 PSY-P 102 Introductory Psychology II \textit{S&H}  
3 SPH-B 310 Health Care in Diverse Communities*  
3 SPH-B 403 Public Health Program Planning  
3 SPH-F 150 Intro to Life-Span Human Development \textit{S&H}  
3 SPH-F 255 Human Sexuality \textit{S&H}  
3 SPH-H 263 Personal Health \textit{S&H}  
\textbf{Topical Health and Health Promotion}  
3 SPH-H 172 International Health & Social Issues \textit{S&H}  
3 SPH-H 235 Obesity and Health \textit{S&H}  
3 SPH-H 305 Women's Health  
3 SPH-H 306 Men's Health  
3 SPH-H 320 The Nature of Cancer  
3 SPH-H 326 AIDS & Sexually Transmitted Diseases (summer)  
3 SPH-H 334 (formerly SPH-H 234) Heart Health & Diabetes  
3 SPH-N 220 Nutrition for Health (or N 231)  
\textbf{Physical Activity}  
3 SPH-K 409 Basic Physiology of Exercise  
\hspace{1cm} (P: ANAT-A 215 or SPH-K 205 or equivalent and PHSL-P 215 or equivalent)  
3 SPH-K 412 Exercise in Health and Disease**  
3 SPH-K 417 Physical Activity and Disease: Prevention and Treatment (P: SPH-K 409)*  
\textbf{Environmental Health}  
3 SPH-V 201 Introduction to Occupational Safety and Health**  
3 SPH-V 214 Environmental Regulations & Code Compliance**  
3 SPH-V 215 Food Safety and Sanitation*  
3 SPH-V 422 Issues in Global Environmental Health  
\textbf{International Studies}  
3 INTL-I 202 Global Health and Environment  
\textbf{Sociology}  
3 SOC-S 358 Social Issues in Health and Medicine  
3 SOC-S 370 Research Methods in Sociology  
\textbf{Pre-Health Professions}  
\textit{Consult with your advisor if you are pre-health to ensure you take the necessary courses.}  
3 BIOL-L 111 Intro to Biol Evolution & Diversity \textit{N&M} (or L 211)  
3 BIOL-L 113 Biology Laboratory (P or C: BIOL-L 112)  
3 BIOL-M 200 Micro Organisms in Nature and Disease **  
3 CHEM-C 117 Principles of Chemistry and Biochemistry I \textit{N&M}  
3 CHEM-C 341 Organic Chemistry I Lectures  
3 CHEM-C 342 Organic Chemistry II Lectures  
2 CHEM-C 343 Organic Chemistry I Lab  
5 CHEM-N 330 Intermediate Inorganic Chemistry  
5 PHYS-P 201 General Physics I \textit{N&M}  
5 PHYS-P 202 General Physics II \textit{N&M}  

\textbf{GENERAL EDUCATION COURSES} \hspace{0.5cm} 20-39  
\textbf{MAJOR COURSES} \hspace{0.5cm} 65-72  
\textbf{COMPLETE A MINIMUM OF 120 CREDITS FOR THIS DEGREE.}  

\text{* Generally fall only} \hspace{1cm} \text{** Generally spring only}
# Suggested Course Sequence for Epidemiology

(Note: Mathematical Modeling course and 1 M&M course covered by course requirements)

<table>
<thead>
<tr>
<th>Freshman Year - Fall Semester</th>
<th>Freshman Year - Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>BIOL-L112 “Foundations of Biology: Biological Mechanisms” (3)</td>
<td>MSCI-M115 “Intro to Anatomy &amp; Physiology” (3)</td>
</tr>
<tr>
<td>MATH-M118 “Finite Mathematics” (3)</td>
<td>SPH-E 250 “Public Health Surveillance and Monitoring” (3)</td>
</tr>
<tr>
<td>Arts and Humanities or WLC elective (3)</td>
<td>Arts and Humanities or WLC elective (3)</td>
</tr>
<tr>
<td>English Composition or Natural and Mathematical Sciences (3)</td>
<td>English Composition or Natural and Mathematical Sciences (3)</td>
</tr>
<tr>
<td>Elective (3)</td>
<td>Elective (3)</td>
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<td><strong>Total Credits:</strong> 15</td>
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<tr>
<th>Sophomore Year - Fall Semester</th>
<th>Sophomore Year - Spring Semester</th>
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<tbody>
<tr>
<td>SPH-P309 “Public Health Administration” (3)</td>
<td>SPH-E311 “Introduction to Epidemiology” (3)</td>
</tr>
<tr>
<td>SPH-V241 “Foundations of Environmental Health” (3)</td>
<td>SPH-E381 “Introduction to Biostatistics” (3)</td>
</tr>
<tr>
<td>Arts and Humanities or WLC elective (3)</td>
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<tr>
<th>Junior Year - Fall Semester</th>
<th>Junior Year - Spring Semester</th>
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<tbody>
<tr>
<td>SPH-E 358 “Epidemiologic Methods: Concepts” (3)</td>
<td>SPH-E 350 “Infectious Diseases: Outbreaks and Field Investigations” (3)</td>
</tr>
<tr>
<td>SPH-E 359 “Epidemiologic Methods: Applications” (3)</td>
<td>SPH-Q 400 “Intro to Biostatistical Computing” (3)</td>
</tr>
<tr>
<td>STAT-S320 “Introduction to Statistics” (3)</td>
<td>SPH-B366 “Community Health” (3)</td>
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<tr>
<td>Related Content (3)</td>
<td>Related Content (3)</td>
</tr>
<tr>
<td>Elective (3)</td>
<td>Elective (3)</td>
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<tr>
<td><strong>Total Credits:</strong> 15</td>
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<tr>
<th>Senior Year - Fall Semester</th>
<th>Senior Year - Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>SPH-E 353 “Distribution and Determinants of Chronic Diseases” (3)</td>
<td>SPH-E496 “Field Experience in Epidemiology” (5)</td>
</tr>
<tr>
<td>SPH-H 494 “Research and Evaluation Methods in Health and Safety” (3)</td>
<td>Elective (3)</td>
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<td>Related Content (3)</td>
<td>Elective (3)</td>
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<td>Related Content (3)</td>
<td>Elective (3)</td>
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<tr>
<td>Elective (3)</td>
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<tr>
<td><strong>Total Credits:</strong> 15</td>
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*The Field Experience in Epidemiology can only be completed once all required coursework has been finished*
Epidemiology

The BS in Epidemiology degree is a four year undergraduate degree offered through the Department of Epidemiology and Biostatistics at Indiana University-Bloomington. The field of public health is charged with assessing, understanding, and responding to the behavioral and ecological factors that influence the health of communities throughout the world. Public health professionals strive to improve the health of individuals and communities by efforts situated in government agencies, nonprofit organizations, hospitals, schools and universities, and corporations. The proposed structure of the BS in Epidemiology degree is consistent with the standards required by the Council on Education for Public Health (CEPH), the federally recognized accrediting body for public health academic programs. Students who choose this degree program are required to take courses related to the five core areas in public health: epidemiology, health administration, environmental health, biostatistics, and social and behavioral health. They also take courses that expose them to the basic fundamentals required of a public health professional in the areas of disease surveillance, study design, data collection and analysis, identification of risk factors for infectious and chronic diseases, and interpretation of findings from research studies. At the conclusion of their course work, students must complete an internship which provides them an opportunity to apply the skills and competencies they attained within an actual work environment. In addition to allowing the students to synthesize the many concepts they learned in the core public health and epidemiology courses, the field experience provides students with an opportunity to act professionally, think critically, communicate with many different individuals, and develop other important skills required to be successful in an epidemiology work environment. Students completing this degree will be well positioned to begin employment as epidemiologists or to pursue an advanced degree.

Opportunities in the Program

Degree programs in public health balance theoretical knowledge with professional experience through internships and opportunities to work with faculty on research projects.

Career Opportunities

The work of a public health professional is diverse and includes activities such as documenting the spread of disease and illness, developing and managing programs designed to change health-related behaviors, implementing regulatory initiatives and working with policy makers to facilitate societal changes that promote well-being. Public interest in a healthy lifestyle is increasing the demand for public health professionals. Public health careers can be found in local, state, and federal government; nonprofit organizations; businesses and corporations; hospitals; county health departments; universities; and with health foundations and health-based grant projects. A public health degree can lead to career positions such as the following:

Biostatistician
Disease Prevention Manager
Environmental Health Specialist
Health Data Analyst
Health Promotion Specialist
Maternal and Child Health Specialist
Public Health Educator
Public Health Epidemiologist
Public Health Researcher
Sexual Health Educator
Technical Advisor for HIV/AIDS Programs
Vaccine Advisor and Program Manager
Youth Tobacco Prevention Coordinator