

Department of Public Health

Welcome to the IU School of Medicine Department of Public Health!

The IU School of Medicine Department of Public Health offers the following programs:

- Doctor of Philosophy (Ph.D.) in Epidemiology
- Doctor of Philosophy (Ph.D.) in Health Policy and Management
- Doctor of Philosophy (Ph.D.) in Biostatistics
- Master of Public Health (M.P.H.)
- Master of Health Administration (M.H.A.)
- Bachelor of Science in Public Health (B.S.P.H.)
- Bachelor of Science in Health Services Management (B.S.H.S.M.)
- Graduate Certificate in Public Health
- Graduate Health Policy Certificate
- Graduate Health Systems Management Certificate
- Undergraduate Public Health Area Certificate
- Undergraduate Environmental Studies Area Certificate
- Ph.D. Minor in Public Health
- Ph.D. Minor in Epidemiology
- Ph.D. Minor in Environmental Health Science
- Ph.D. Minor in Health Policy and Management
- Ph.D. Minor in Social and Behavioral Sciences
- Undergraduate Health Systems Administration Minor
- Undergraduate Environmental Science and Health Minor

Graduate Program Accreditations

The Master in Public Health Program is the only public health program in Indiana accredited by the [Council on Education for Public Health](#).

The Master in Health Administration is the only M.H.A. Program in Indiana accredited by the [Commission on Accreditation of Healthcare Management Education \(CAHME\)](#).

Department Overview

We are delighted that you are interested in public health education at Indiana University School of Medicine. The Department of Public Health offers a variety of educational programs. We are committed to ensuring that your education is rigorous, intellectually challenging and rewarding.

At the undergraduate level, students can pursue 120 credit hour degrees in Environmental Health Science (B.S. Public Health) or Health Services Management (B.S. Health Services Management). The Environmental Health Science major is one of 32 national programs and the only program in Indiana accredited by the [National Health Science Protection and Accreditation Council](#).

Undergraduate certificates include the Certificate in Environmental Studies (30 credits) and the Certificate in Public Health (18 credits), which has options in environmental

science and health and health administration. Undergraduate minors, which are 15 credits, are offered in environmental science and health and health systems administration. To learn more about the undergraduate program, visit the undergraduate link in this bulletin.

At the graduate level, students can pursue advanced study in public health through doctoral and master degrees and certificates and minors.

The 90 credit Doctor of Philosophy (Ph.D.) degree in Epidemiology and the Ph.D. in Health Policy and Management can be completed on a part time or full time basis. To learn more about the Ph.D. Program in Epidemiology, visit [Ph.D. Program](#).

The 45 credit Master of Public Health (M.P.H.) degree offers five concentration areas: Epidemiology, Social and Behavioral Sciences, Health Policy and Management, Environmental Health Science, and Biostatistics. The program is fully accredited by the [Council on Education for Public Health](#). Joint degrees include the M.D./M.P.H., D.D.S./M.P.H., M.S.W./M.P.H., M.H.A./M.P.H., and the M.S. in Bioethics/M.P.H. To learn more about the program, visit [M.P.H Program](#).

The 51 credit Master of Health Administration (M.H.A) degree offers advanced study in health administration. This is the only M.H.A Program in Indiana accredited by the [Commission on Accreditation of Healthcare Management Education \(CAHME\)](#). The program is also a member of the [Association of University Programs in Health Administration](#). Joint degrees include the Master of Health Administration-Doctor of Jurisprudence (M.H.A-J.D.), which is offered with the Indiana University School of Law, and the Master of Health Administration-Master of Business Administration (M.H.A-M.B.A), which is offered with the Indiana University Kelley School of Business. To learn more about the program, visit the [M.H.A Program](#).

Graduate certificate programs include the Graduate Certificate in Public Health (15 credits), the Graduate Certificate in Health Policy (17-18 credits), and the Graduate Certificate in Health Services Management (15 credits). To learn more about the Graduate Certificate Program, visit [Graduate Certificate Program](#).

The 12 credit minors are available to students currently enrolled in doctoral programs. To learn more about the doctoral minors available in Public Health and Epidemiology, visit [Doctoral Minors](#).

Through the Office of Public Health Practice, the Department of Public Health offers quality non-credit educational programs for public health professionals. The Office of Public Health Practice offers a broad spectrum of educational activities using a variety of training modalities, including distance learning technologies. To learn more on the Office of Public Health Practice and to view a listing of current training opportunities, visit the [center's webpage](#).

Mission Statement

The mission of the Department of Public Health is to improve the health of the residents of Indiana, the United States and the world through teaching/learning, research and collaborative community practice.

Values Statement

The IU Department of Public Health is dedicated to the pursuit of health for all people. Health is defined as the capacity to develop full human potential, not simply the absence of disease. In promoting the health of communities, DPH emphasizes the prevention of disease and injury and recognizes the interconnectedness of the physical environment and ecosystem to the health of the community. DPH strives to ensure that the interests of the public are represented in health policies and practices and supports activities that promote this comprehensive view.

The department is committed to the principles of equality, shared decision-making, and a focus on the social, biological and environmental determinants of health which are central tenets of healthy communities and social justice. DPH embraces collaborative and participatory activities as a means of working collectively with other institutions and organizations in the community, across the state, nationally and internationally to ensure healthy communities and populations, a prerequisite for social justice.

While the traditional regulatory, legal and legislative functions of public health remain as important as ever today, public health is dynamic and must respond in innovative ways to emerging challenges to world health.

Undergraduate Degree Accreditation

The Environmental Health Science major is one of 31 national programs and the only program in Indiana accredited by the [National Health Science Protection and Accreditation Council](#).

Admissions

Undergraduate Admission (Prior to January 1, 2012)

- Direct and Dual Admission
- External and Intercampus Transfer Admission
- Probationary Admission

Undergraduate Admission (Effective January 1, 2012)

- Direct and Dual Admission
- External and Intercampus Transfer Admission
- Probationary Admission

Graduate Admission

The Department of Public Health offers the Ph.D. (Epidemiology, Health Policy and Management, Biostatistics); Master of Health Administration; Master of Public Health with concentrations in Epidemiology, Environmental Health Science, Health Policy and Management, Social and Behavioral Science, and Biostatistics (beginning in the Fall of 2011); and certificates & minors.

Application information about graduate study, including literature and application requirements and materials, may be obtained from the Department of Public Health's website (<http://www.pbhealth.iupui.edu/>).

Undergraduate Admission (Prior to January 1, 2012)

Students can be admitted to the Department of Public Health through direct admission or as transfer students within the IU systems, or from other institutions.

Students admitted to the Department of Public Health are required to attend the Undergraduate Orientation, which is scheduled during the early part of the fall and spring semesters. The orientation provides students with an opportunity to become acquainted with the undergraduate teaching faculty and staff, and orients students to the Department of Public Health's policies and procedures to ensure a successful transition to the Department.

Direct and Dual Admission

The Department of Public Health has a special program to admit freshman students simultaneously to the Department of Public Health and to the University College. To be eligible for this dual admission applicants must meet the general university and campus requirements for admission, have a minimum combined Scholastic Aptitude Test (SAT) math and critical reading test score of 1000 or ACT of 21, and have a 3.0 high school grade point average.

Students who do not qualify for dual admission at Indianapolis, or who choose not to apply for freshman-level direct entry may be admitted to the Department of Public Health after they have completed 12 credit hours with 2.0 or better cumulative and semester grade point averages, and completed ENG-W 131 with a letter grade of a "C" or higher.

Undergraduate External and Intercampus Transfer Admission

External Transfer

Students transferring from other institutions will receive direct admission to the Department of Public Health, provided students have completed 12 hours of coursework and earned cumulative and semester (last semester at previous institution) grade point averages of 2.0 or better.

Intercampus Transfer

Permanent and temporary intercampus transfer students transferring from any campus of Indiana University will receive direct admission to the Department of Public Health, provided students have completed 12 hours, have earned cumulative and semester (last semester at previous institution) grade point averages of 2.0 or better, and have earned a 2.3 in courses that apply toward the major.

Undergraduate Probationary Admission

Applicants who do not meet the undergraduate admission requirements are not eligible for admission until they have met the admission requirements. Applicants who do not meet the Department of Health's admission requirements may seek admission to University College.

Undergraduate Admission (Effective January 1, 2012)

Effective January 1, 2012, students who transfer into the undergraduate programs with college credit must have completed at least 12 credit hours and have at least

a 2.5 undergraduate GPA to be admitted. To remain in good standing, students must maintain a cumulative grade point average of 2.5.

Students can be admitted to the Department of Public Health through direct admission or as transfer students within the IU systems or from other institutions.

Students admitted to the Department of Public Health are required to attend the Undergraduate Orientation, which is scheduled during the early part of the fall and spring semesters. The orientation provides students with an opportunity to become acquainted with the undergraduate teaching faculty and staff, and orients students to the Department of Public Health's policies and procedures to ensure a successful transition to the Department.

Direct and Dual Admission

The Department of Public Health has a special program to admit freshman students simultaneously to the Department of Public Health and to the University College. To be eligible for this dual admission, applicants must meet the general university and campus requirements for admission, have a minimum combined Scholastic Aptitude Test (SAT) math and critical reading test score of 1000 or ACT of 21 and have a 3.0 high school grade point average.

Students who do not qualify for dual admission at Indianapolis, or who choose not to apply for freshman-level direct entry may be admitted to the Department of Public Health after they have completed 12 credit hours with 2.5 or better cumulative and semester grade point averages, and completed ENG-W 131 with a letter grade of a "C" or higher.

Undergraduate External and Intercampus Transfer Admission

External Transfer

Students transferring from other institutions will receive direct admission to the Department of Public Health, provided students have completed 12 hours of coursework and earned cumulative and semester (last semester at previous institution) grade point averages of 2.5 or better.

Intercampus Transfer

Permanent and temporary intercampus transfer students transferring from any campus of Indiana University will receive direct admission to the Department of Public Health, provided students have completed 12 hours, have earned cumulative and semester (last semester at previous institution) grade point averages of 2.5 or better.

Undergraduate Probationary Admission

Applicants who do not meet the undergraduate admission requirements are not eligible for admission until they have met the admission requirements. Applicants who do not meet the Department of Health's admission requirements may seek admission to University College.

Environmental Studies Certificate

The certificate in environmental studies provides students with an inter-disciplinary program of study that is designed to introduce students to selected aspects of current thinking and research on the nature, causes, and solutions of

environmental problems as they affect human health and the environment. The certificate provides students with grounding in ecology, chemistry, economics, finance and budgeting, environmental health, and physical systems of the earth and more in-depth study in courses related to environmental management, basic sciences, geographic systems, and earth sciences.

Eligibility and Application Procedure

1. Students enrolled in baccalaureate programs at Indiana University or other accredited colleges or universities who are in good academic standing may pursue the certificate in environmental studies, providing they have completed two semesters of college level chemistry and a college level course in algebra (or higher math course). The certificate in environmental studies is not a stand-alone certificate.
2. Public Health students majoring in Environmental Health Science are not eligible for the Environmental Studies certificate.
3. Students must declare their intention to earn the certificate prior to completing fifteen (15) semester hours creditable toward the certificate by completing an application, which is available online or at the Department of Public Health Student Services, 714 N. Senate Avenue, EF 200. Students may also contact the Undergraduate Academic Advisor at 317-278-0753 for the application or if they have questions.

General Requirements

1. A minimum of 32 credit hours.
2. A minimum cumulative grade point average of 2.0.
3. A maximum of six (6) hours of appropriate credit from another institution may be applied toward this certificate.
4. Credit work for this certificate may be taken at any campus of the Indiana University system.

NOTE: Some courses listed below are not offered every semester. Students should check with the Undergraduate Academic Advisor to determine the availability of specific courses at given times.

Certificate Requirements (10 courses, 32 credit hours minimum)

The following courses:

- BIOL-K341 Principles of Ecology (3 cr.)
- CHEM-C101/121 Elementary Chemistry I with Lab (5 cr.) **OR**
CHEM-C105/125 Principles of Chemistry I with Lab (5 cr.)
- ECON-E201 Introduction to Microeconomics (3 cr.) P: Sophomore Standing
- ECON-E202 Introduction to Macroeconomics (3 cr.) P: Sophomore Standing
- SPEA-V372 Government Finance and Budgets (3 cr.)

ONE of the following courses:

- SPEA-E162 Environment and People (3 cr.)
- PBHL-A316 Environmental Science and Health (3 cr.)

ONE of the following courses:

- GEOG-G107 Physical Systems of the Environment (3 cr.)
- GEOL-G107 Environmental Geology (3 cr.)
- GEOL-G110 Geology: The Earth's Environment (3 cr.)

THREE of the following courses:

- PBHL-A316 Environmental Health (3 cr.)
 - PBHL-A424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.)
 - PBHL-A451 Air Pollution and Control (3 cr.)
 - CHEM-C207 Introduction to Biochemistry (4 cr.)
 - CHEM-C310 Analytical Chemistry (3 cr.)
 - CHEM-C341 Organic Chemistry Lectures I (3 cr.)
 - ECON-E485 Social Control of Industry (3 cr.)
 - GEOG-G303 Weather and Climate (3 cr.)
 - GEOG-G304 Meteorology and Climatology (3 cr.)
 - GEOG-G315 Environmental Conservation (3 cr.)
 - GEOL-G300 Environmental and Urban Geology (3 cr.)
 - GEOL-G303 Geologic Mapping and Field Methods (4 cr.)
 - GEOL-G406 Introduction to Geochemistry (3 cr.)
 - GEOL-G415 Geomorphology (3 cr.)
 - GEOL-G451 Principles of Hydrogeology (3 cr.)
 - PHYS-200 Physical Environment
 - PHYS-218 General Physics I (4 cr.)
 - SOC-R465 Population and Human Ecology (3 cr.)
 - SPEA-K300 Statistical Techniques (3 cr.)
- P: MATH-M118** or other approved option

Certificate Programs

- Certificate in Environmental Studies
- Certificate in Public Health

Public Health Certificate

The certificate in Public Health includes two emphasis areas: Environmental Science and Health and Health Administration. The certificate is designed to provide students in both emphasis areas with an overview of each area followed by more focused study in areas basic to each field. An internship is encouraged for both emphasis areas.

Students in the environmental science and health option will complete survey courses in environmental health and epidemiology, a skills course, and four courses from a list including applications in environmental mathematics methods, toxicology, water and wastes, policy, food safety, worker health and safety, and techniques.

Students in the health administration option will complete survey courses in health systems administration and finance, a skills course, and four courses from a list including applications in advanced finance, human resources, economics, strategic planning, policy, marketing, and law.

Eligibility and Application Procedure

1. Students enrolled in baccalaureate programs at Indiana University or other accredited colleges or universities and who are in good academic standing may pursue the certificate in public health. The certificate in public health is not a stand-alone certificate.

2. Students pursuing the environmental health science option must have completed two semesters of college level chemistry and a college level course in algebra (or higher math course).

3. Public Health students majoring in Environmental Health Science or Community Health are not eligible for the public health certificate.

4. Students must declare their intention to earn the certificate prior to completing nine (9) semester hours creditable toward the certificate by completing an application which is available online, or at the Department of Public Health, 714 N. Senate Avenue, EF 200. Students may also contact the Undergraduate Academic Advisor at 317-278-0753 for the application, or if they have questions.

General Requirements

1. A minimum of 18 credit hours.
2. A minimum cumulative grade point average of 2.0.
3. Course work for this certificate may be taken at any campus of the Indiana University system.
4. A maximum of six (6) hours of appropriate credit from another institution may be applied toward this certificate.

NOTE: Some courses listed below for the environmental science and health are not offered every semester. Students should check with the Undergraduate Academic Advisor to determine the availability of specific courses at given times.

Certificate Requirements (6 courses, 18 credit hours minimum)

Environmental Science and Health option:

The following courses:

- PBHL-A316 Environmental Health (3 cr.)
- PBHL-A322 Principles of Epidemiology (3 cr.)

FOUR of the following courses:

- PBHL-A410 Introduction to Environmental Toxicology (3 cr.)
- PBHL-A424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.)
- PBHL-A416 Environmental Health Policy (3 cr.)
- PBHL-A428 Food Science and Sanitation (3 cr.)
- PBHL-A433 Industrial Hygiene and Radiological Health (3 cr.)
- PBHL-A459 Environmental Science and Health Data Analysis (3 cr.) **P: PBHL-A316, 1 sem. each of statistics & chemistry**
- PBHL-A460 Techniques in Environmental Science and Health (4 cr.) **P: PBHL-A459**
- PBHL-A380 Environmental Health Internship (3 cr.)

Health Administration option:

The following courses:

- PBHL-H320 Health Systems Administration (3 cr.)
- PBHL-H352 Health Finance and Budgeting (3 cr.) **P: PBHL-H200, BUS-A200, or BUS-A201**

FOUR of the following courses:

- PBHL-H353 Advanced Health Finance and Budgeting (3 cr.) **P: PBHL-H352**
- PBHL-H354 Health Care Economics (3 cr.) **OR** ECON-E387 Health Economics (3 cr.)
- PBHL-H401 Strategic Planning for Health Care Organizations (3 cr.)
- PBHL-H420 Health Policy (3 cr.)
- PBHL-H432 Health Care Marketing (3 cr.)
- PBHL-H441 Legal Aspects of Health Care Administration (3 cr.) **OR** SPEA-V376 Law and Public Policy (3 cr.)
- PBHL-P400 Topics in Public Health (3 cr.)
- PBHL-H456 Managed Care (3 cr.)
- PBHL-H472 Applied Health Care Administration (3 cr.) **P: PBHL-H474**
- SPEA-V373 Human Resources Management in the Public Sector (3 cr.)
- PBHL-H380 Internship in Health Services Management (1-3 cr.)

Bachelor of Science in Public Health - Environmental Health Science

The Bachelor of Science in Public Health, Environmental Health Science major consists of a minimum of 66 credit hours of general education requirements, 40 credit hours of course work in the major, and electives to total 120 credit hours. The Environmental Health Science major is accredited by the Environmental Health Science and Protection Accreditation Council. Students enrolled in this major are eligible for special scholarship and internship opportunities. For more information, contact the academic advisor or faculty mentor for Environmental Health Science.

The curriculum provides students with knowledge, skills and abilities in the following competency areas: policy and management, foundation and methods, applications in environmental health science, and environmental health science integrative experience.

The following degree requirements are required of all students majoring in environmental health science and admitted to Indiana University beginning with the Fall Semester, 2008. Students who are returning to Public Health but have not enrolled in classes for three or more consecutive years will be required to follow these degree requirements.

Some courses in the major are not offered each semester. Students should contact the Office of Student Services in the Department of Public Health for advising information about the course rotation and to ensure that they will meet graduation requirements.

General Education (23 courses) - 66 credit hours

1. Communications (4 courses) - Minimum of 12 credit hours

Four courses for a minimum of 12 credit hours.

The following courses:

- ENG-W 131 Elementary Composition I (3 cr.)
- ENG-W 231 Professional Writing Skills (3 cr.) **OR** BUS-X 204 Business Communications (3 cr.) **OR** TCM 220 Technical Report Writing (3 cr.)
- COMM-R 110 Fundamentals of Speech Communication (3 cr.)

- COMM-C 223 Business and Professional Communication (3 cr.)

2. Social Sciences and Humanities (4 courses) - Minimum of 12 credit hours

Social Sciences

One approved course for a minimum of 3 credit hours from any of the following subject areas:

- Anthropology
- Economics
- Geography
- Journalism
- Linguistics
- Political Science
- Psychology
- Sociology

Humanities

One approved course for a minimum of 3 credit hours from any of the following subject areas:

- Afro-American Studies
- Classical Studies
- Communication & Theater
- Comparative Literature
- English
- Fine Arts
- Folklore
- Foreign Languages & Literatures
- History
- Music
- Philosophy
- Religious Studies

3. Science (12 courses) - Minimum of 33 credit hours

The following courses:

- BIOL-N 212 Human Biology (3 cr.)
- BIOL-N 213 Human Biology Laboratory (1 cr.)
- BIOL-N 251 Introduction to Microbiology (3 cr.)
- PHYS-P 201 General Physics I (5 cr.) **P: MATH 15900 or equivalent (MATH 15300 and Math 15400)**

The following courses:

- CHEM-C 105 Principles of Chemistry I (3 cr.)
- CHEM-C 125 Experimental Chemistry I (2 cr.)
- CHEM-C 106 Principles of Chemistry II (3 cr.) **P: CHEM-C 105**
- CHEM-C 126 Experimental Chemistry II (2 cr.) **P: CHEM-C 125**
- CHEM-C 341 Organic Chemistry I (3 cr.) **P: CHEM-C 106**
- CHEM-C 343 Organic Chemistry I Laboratory (2 cr.) **P: CHEM-C 126; P: or C: CHEM-C 341**

Two Additional Science Courses from the following list (or other courses approved by the Faculty Advisor):

- BIOL-N 214 Human Biology (3 cr.) **P: BIOL-N 212 AND**
- BIOL-N 215 Human Biology Laboratory (1 cr.) **P: or C: BIOL-N 214**
- BIOL-N 217 Human Physiology (5 cr.)
- BIOL-N 261 Human Anatomy (5 cr.)

- BIOL-K 101 Concepts of Biology I (5 cr.)
- BIOL-K 103 Concepts of Biology II (5 cr.)
- BIOL-K 341 Principles of Ecology and Evolution **P: BIOL-K 103**
- CHEM-C 101 Elementary Chemistry (3 cr.) **AND**
- CHEM-C 121 Elementary Chemistry Laboratory (2 cr.) **P: or C: CHEM-C 101**
- CHEM-C 110 The Chemistry of Life (3 cr.) **AND**
- CHEM-C 115 Laboratory of the Chemistry of Life (2 cr.) **P: or C: CHEM-C 110**
- CHEM-C 342 Organic Chemistry II (3 cr.) **P: CHEM-C 341**
- CHEM-C344 Organic Chemistry II Laboratory (2 cr.) **P: CHEM-C 342; P: or C: CHEM-C 342**
- GEOL-G 107 Fundamentals of Geology (3 cr.)
- GEOL-G 109 Fundamentals of Earth History (3 cr.)
- GEOL-G 110 Physical Geology (3 cr.) **AND**
- GEOL-G 120 Physical Geology Laboratory (1 cr.) **P: or C: GEOL-G 110**
- GEOL-G 406 Introduction to Geochemistry (3 cr.) **P: GEOL-G 205, CHEM-C 106, or consent of instructor**
- PHYS-P 202 General Physics II (5 cr.) **P: PHYS-P 201**
- PSY-B 105 Psychology as a Biological Science(3 cr.)

4. Quantitative Methods (5 courses) - Minimum of 14 credit hours

The following computer courses:

- SPEA-V 261 Computers in Public Affairs (3 cr.) **OR**
- SPEA-V 369 Managing Information Technology (3 cr.)
- GEOG-G 338 Introduction to Geographic Information Systems (3 cr.)

One of the following mathematics sequences or higher -level mathematics course:

- MATH 15300 Algebra and Trigonometry I (3 cr.) **AND**
- MATH 15400 Algebra and Trigonometry II (3 cr.)

OR

- MATH 15900 Precalculus

One statistics course:

- SPEA-K 300 Statistical Techniques (3 cr.) **R: MATH-M 118 or higher course**

Environmental Health Science Major(13 courses) - Minimum of 40 credit hours

1. Policy and Management (3 courses) - Minimum of 9 credit hours

The following policy courses:

- SPEA-V 170 Introduction to Public Affairs (3 cr.)
- PBHL-A 416 Environmental Health Policy (3 cr.)

One of the following management courses:

- SPEA-V 263 Public Management (3 cr.)
- SPEA-V 366 Managing Behavior in Public Organizations (3 cr.)

2. Foundation and Methods (5 courses) - Minimum of 16 credit hours

EACH of the following courses:

- PBHL-A 316 Environmental Health Science (3 cr.)
- PBHL-A 322 Epidemiology (3 cr.)
- PBHL-A 410 Introduction to Toxicology (3 cr.)
- PBHL-A 459 Environmental Science and Health Data Analysis (3 cr.) **P: PBHL-A 316, SPEA-K300, 1 semester of chemistry**
- PBHL-A 460 Techniques in Environmental Science and Health (4 cr.) **P: PBHL-A 459**

3. Applications in Environmental Health Science (4 courses) - Minimum of 12 credit hours

EACH of the following courses:

- PBHL-A 424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.)
- PBHL-A 428 Food Science and Sanitation (3 cr.)
- PBHL-A 433 Industrial Hygiene (3 cr.)
- PBHL-A 451 Air Pollution and Control (3 cr.)

4. Environmental Health Science Experience (1 course) - Minimum of 3 credit hours

- PBHL-A 380 Environmental Health Science Internship (1-6 cr.) **OR**
- PBHL-A 466 Public Health Field Experience (1-3 cr.)

General Electives

A minimum of 106 credit hours of required courses are listed for this curriculum (66 credit hours in general education and 40 credit hours in the major). In addition, students must take a sufficient number of elective courses to total a minimum of 120 credit hours for the degree.

Grade Point Average Requirement

1) Students who matriculate into this program prior to January 1, 2012 must obtain at least a 2.0 cumulative grade point average (GPA), a 2.0 semester GPA, and a minimum GPA of at least 2.3 in the major courses to remain in good standing. The cumulative and major GPAs must be met for graduation.

2) Effective January 1, 2012, student who are admitted of this date must obtain at least a 2.5 cumulative GPA and a semester GPA of 2.5 to remain in good standing and graduate from the program.

Program Deviations

Course substitutions and course waivers must be approved by the faculty advisor.

Bachelor of Science in Health Services Management

The Bachelor of Science in Health Services Management degree consists of a minimum of 44 credit hours of general education requirements, a minimum of 51 credit hours of coursework in the major, and electives to total 120 credit hours. Collectively these requirements track the AUPHA certification criteria. The curriculum provides students with knowledge, skills and abilities the following competency areas: general management, health services management, health services applications, and health services integration.

The capstone is the integrative experience that brings together and builds on the competency areas.

General Education (14 courses) - Minimum of 44 credit hours

1. Communications (4 courses) - Minimum of 12 credit hours.

The following writing course:

- ENG-W 131 Elementary Composition I (3 cr.) (C or higher)

One of the following writing courses:

- ENG-W 231 Professional Writing Skills (3 cr.) **OR**
- BUS-X 204 Business Communications (3 cr.)

One of the following speech courses:

- COMM-R 110 Fundamentals of Speech Communication (3 cr.)
- COMM-C 223 Business and Professional Communication (3 cr.) **OR**
- COMM-C 180 Introduction to Personal Communication (3 cr.)

2. Social Sciences and Humanities(4 courses)-Minimum of 12 credit hours

Social Sciences

The following economics courses:

- ECON-E 201 Introduction to Microeconomics **P: Sophomore Standing**
- ECON-E 202 Introduction to Macroeconomics **P: Sophomore Standing**

One approved course for a minimum of 3 credit hours from any of the following subject areas:

- Anthropology
- Economics
- Geography
- Journalism
- Linguistics
- Political Science
- Psychology
- Sociology

Humanities

One approved course for a minimum of 3 credit hours from any of the following subject areas:

- Afro-American Studies
- Classical Studies
- Communications & Theater
- Comparative Literature
- English
- Fine Arts
- Folklore
- Foreign Languages and Literature
- History
- Music
- Philosophy
- Religious Studies

3. Science (2 courses with labs) - Minimum of 8 credit hours

Two approved courses from the Basic Sciences, such as Biology, Chemistry or Physics

Recommended courses:

- BIOL-N 212 Human Biology (3 cr.) and BIOL N213 Human Biology Laboratory (1 cr.)
- BIOL-N 214 Human Biology **P: BIOL-N 212**(3 cr.) and BIOL N215 Human Biology Laboratory **P: or C: BIOL-N 213**(1 cr.)

4. Quantitative Methods (3 courses) - Minimum of 9 credit hours

The following computer courses:

- SPEA-V 261 Computers in Public Affairs (3 cr.) **OR**
- BUS-K201 The Computer in Business (3.0)
- SPEA-V 369 Managing Information Technology (3 cr.)

One mathematics course such as M118, M119, or higher:

- MATH-M 118 Finite Mathematics (3 cr.) is recommended

One statistics course:

- SPEA-K 300 Statistical Techniques (3 cr.) **R: MATH-M 118 or higher**

Health Services Management Major (18-19 courses) - Minimum of 51-54 credit hours

1. Introduction to Careers in Health Care (1 course) - 3 credit hours

- PBHL-H 120 Contemporary Health Care (3 cr.)

2. General Management (5 courses) - Minimum of 15 credit hours

The following courses:

- SPEA-V 263 Public Management (3 cr.) **OR** SPEA-V 362 Nonprofit Management and Leadership (3 cr.)
- SPEA-V 366 Managing Behavior in Public Organizations (3 cr.)
- SPEA-V 352 Health Finance and Budgeting: **P: BUS-A 200, BUS-A 201, or PBHL-H200**

One of the following:

- SPEA-V 348 Management Science (3 cr.) **P: SPEA-K 300, MATH-M 118**
- SPEA-V 379 Performance Measurement and Program Evaluation (3 cr.)

One of the following:

- SPEA-V 373 Human Resources Management in the Public Sector (3 cr.)
- SPEA-V 443 Managing Workforce Diversity (3 cr.)
- SPEA-V 435 Negotiation and Alternative Dispute Resolution (3 cr.)

3. Health Services Management (5 courses) - Minimum of 15 credit hours

The following courses:

- PBHL-H 320 Health Systems Administration (3 cr.)
- PBHL-A 322 Principles of Epidemiology (3 cr.)
- PBHL-H 353 Advanced Health Finance and Budgeting (3 cr.) **P: PBHL-H 352**
- PBHL-H 401 Strategic Planning for Health Care Organizations (3 cr.)
- PBHL-H 474 Health Administration Ethics Seminar (3 cr.)

4. Health Services Applications (5 courses) - Minimum of 15 credit hours

Five of the following courses:

- PBHL-A 316 Environmental Science and Health (3 cr.)
- PBHL-H 354 Health Economics (3 cr.)
- PBHL-H 411 Chronic and Long-term Care Administration (3 cr.)
- PBHL-H 420 Health Policy (3 cr.) **P: PBHL-H320**
- PBHL-H 432 Health Care Marketing (3 cr.)
- PBHL-H 441 Legal Aspects of Health Care Administration (3 cr.)
- PBHL-H 455 Topics in Health Care Administration (3 cr.)

5. Health Services Management Experience (2 courses) - Minimum of 3 credit hours

The following courses:

- PBHL-H 365 Health Services Practicum (3 cr.) **Requires Junior Standing in the major**
- PBHL-H 380 Health Services Management Internship(1-6 cr.)

6. Health Services Management Capstone (1 course) - Minimum 3 credit hours

- PBHL-H 472 Applied Health Administration (3 cr.) **P: PBHL-H 474**

General Electives

A minimum of 95 credit hours of required courses are listed for this curriculum (44 credit hours in general education and 51 credit hours in the major). In addition, students must take a sufficient number of elective courses to total a minimum of 120 credit hours required for the degree.

Grade Point Average Requirement

1) Students who matriculate into this program prior to January 1, 2012 must obtain at least a 2.0 cumulative grade point average (GPA), a 2.0 semester GPA, and a minimum GPA of at least 2.3 in the major courses to remain in good standing. The cumulative and major GPAs must be met for graduation.

2) Effective January 1, 2012, student who are admitted of this date must obtain at least a 2.5 cumulative GPA and a semester GPA of 2.5 to remain in good standing and graduate from the program.

Program Deviations

Course substitutions and course waivers must be approved by the faculty advisor.

Degree Programs

Bachelor of Science in Public Health degree

The Bachelor of Science in Public Health (B.S.P.H.) degree combines coursework in communications, mathematics, the basic sciences (biology, chemistry, physics) and public health with an emphasis on protecting human health and the quality of the built and natural environment from environmental hazards through pollution prevention and control.

Employment areas include indoor and outdoor pollution, water supply and wastewater treatment, solid and hazardous waste, workplace health and safety, general environmental health, childhood lead poisoning and asthma control, environmental health education, environmental toxicology and microbiology, sustainability, housing safety and vector control, food safety and defense, hazardous materials, homeland security, and others.

The Environmental Health Science major is an excellent option for any student who:

- enjoys science and wants to apply what he/she learns,
- cares about human health and the environment
- likes to develop solutions to complex problems,
- wants to make a difference, and
- enjoys a job with variety.

The Environmental Health Science major is accredited by the National Environmental Health Science and Protection Accreditation Council (NEHAC). Students who are enrolled in an accredited program are eligible for special internships, grants and awards available only to accredited programs. Interested students can visit the Department of Public Health website for more information.

The curriculum requirements are available at the following link: Bachelor of Science in Public Health (B.S.P.H.).

Bachelor of Science in Health Systems Management

The Bachelor of Science in Health Systems Management (B.S.H.S.M.) combines coursework in general education (communications, liberal arts, science, and quantitative methods), health care policy, finance and management to prepare students for positions in the health care arena in nonclinical work. The health care arena includes acute care, physician practice, and long-term care, insurance companies, and government. Positions are available in government and the private and not-for-profit sectors. Available positions include office manager, billing agent, project coordinator, HR recruiting specialist, marketing manager, claims adjudicator, clinical liaison, customer service representative, admissions staff, marketing specialist, and others.

The Health Services Management major is an excellent option for any student who:

- has an interest in management and administration,
- wants to work in health care but in a nonclinical occupation,
- enjoys working and interacting with people,
- likes to work in a rapidly changing environment, and

- wants a rewarding career that involves helping others.

The curriculum requirements are available at the following link: Bachelor of Science in Health Systems Management (B.S.H.S.M.).

Bachelor of Science in Public Health - Community Health

The Bachelor of Science in Public Health, Community Health major consists of a minimum of 48 credit hours of general education requirements, 54 credit hours of course work in the major, and electives to total 120 credit hours.

The curriculum provides students with knowledge, skills and abilities in the communications, social sciences and humanities, basic sciences, quantitative methods, public health core and electives totaling to 120 credit hours.

The following degree requirements are required of all students majoring in community health admitted to Indiana University beginning with the Fall Semester, 2011. Students who are returning to Public Health but have not enrolled in classes for three or more consecutive years will be required to follow these degree requirements.

General Education (16 courses) - 48 credit hours

1. Communications (4 courses) - Minimum 12 credit hours

Four courses for a minimum of 12 credit hours.

The following courses:

- ENG-W 131 Elementary Composition I (3 cr.)
- ENG-W 231 Professional Writing Skills (3 cr.) OR BUS-X 204 Business Communications (3 cr.) OR TCM 220 Technical Report Writing (3 cr.)
- COMM-R 110 Fundamentals of Speech Communication (3 cr.)
- COMM-C 223 Business and Professional Communication (3 cr.)

2. Social Sciences and Humanities (4 courses) - Minimum of 12 credit hours

Social Sciences

Two approved courses for a minimum of 6 credit hours from any of the following subject areas:

- Anthropology
- Economics
- Geography
- Linguistics
- Political Science
- Psychology
- Sociology

Humanities

Two approved course for a minimum of 6 credit hours from any of the following subject areas:

- Afro-American Studies
- Classical Studies
- Communications & Theater
- Comparative Literature
- English
- Fine Arts

- Folklore
- Foreign Languages & Literatures
- History
- Music
- Philosophy
- Religious Studies
- Journalism
- Speech

3. Science - Minimum 18 credit hours

- BIOL-N 212 Human Biology (3 cr.)
 - BIOL-N 213 Human Biology Laboratory (1 cr.)
 - BIOL-N 217 Human Physiology (5 cr.)
 - BIOL-N261 Human Anatomy (5 cr.)
 - BIOL-N322 Introductory Principles of Genetics (3 cr.)
 - BIOL-N 251 Introduction to Microbiology (3 cr.)
 - CHEM-C 101 Elementary Chemistry (3 cr.)
 - CHEM-C 121 Elementary Chemistry Laboratory (2 cr.)
- P: or C: Chem-C101**
- CHEM-C 110 The Chemistry of Life (3 cr.) **AND**
 - CHEM-C 115 Laboratory of the Chemistry of Life (2 cr.) **P: or C: CHEM-C 110**
 - CHEM-C 105 Principles of Chemistry I (3 cr.)
 - CHEM-C 125 Experimental Chemistry I (2 cr.)
 - CHEM-C 106 Principles of Chemistry II (3 cr.) **P: CHEM-C 105**
 - CHEM-C 126 Experimental Chemistry II (2 cr.) **P: CHEM-C 125**
- Two Additional Science Courses from the following list (or other courses approved by the Faculty Advisor):

4. Quantitative Methods (2 courses) - Minimum 6 credit hours

Two of the following courses:

- MATH-M 118 Finite Math P: MATH 11000 or MATH 11100 (3 cr.)
- PSY-B 305 Statistics (3 cr.)
- PBHL-P3XX Survey Methods in Public Health (3 cr.)

Community Health Major (18 courses) - 54 credit hours

5. Public Health Core Courses (10 courses) - Minimum 30 credit hours

Each of the following **FIVE** courses:

- PBHL-A 322 Principles of Epidemiology (3 cr.)
- PBHL-A 316 Environmental Health Science (3 cr.)
- PBHL-B 3XX Biostatistics for Public Health (3 cr.)
- PBHL-P 3XX Public Health Systems (3 cr.)
- PBHL-P 3XX Social and Behavioral Sciences in Public Health (3 cr.)

FIVE of the following courses:

- PBHL-H 320 Health Systems Administration (3 cr.)
- PBHL-P 101 Disease, Disasters and Disparities: An Intro. to Public Health (3 cr.)
- PBHL-P 3XX Careers in Public Health (3 cr.)
- PBHL-P 3XX Public Health Ethics (3 cr.)
- PBHL-P 4XX Practicum in Public Health (3 cr.)
- PBHL-P 4XX Capstone Seminar (3 cr.)

6. Public Health Electives (8 Courses: at least 4 must be PHBL) - Minimum 24 Credit Hours

- PBHL-A 416 Environmental Health Policy (3 cr.)
- PBHL-A 428 Food Science and Sanitation (3 cr.)
- PBHL-A 4XX Topics in Epidemiology (3 cr.)
- PHBL-H 120 Contemporary Health Issues (3 cr.)
- PBHL-H 352 Health Finance and Budgeting (3 cr.) **P: BUS-A 200, BUS-A 201, OR PBHL-H 200**
- PBHL-H 353 Advanced Health Finance and Budgeting (3 cr.) **P: PBHL-H 352**
- PBHL-H 354 Health Care Economics (3 cr.)
- PBHL-H401 Strategic Planning for Health Care (3 cr.)
- PBHL-H 411 Chronic and Long-term Care Administration (3 cr.)
- PBHL-H 441 Legal Aspects of Health Care Administration (3 cr.)
- PBHL-H 455 Topics in Health Administration (3 cr.)
- PBHL-H 474 Health Administration Ethics Seminar (3 cr.) **P: PBHL-H 320 and Senior Standing**
- PBHL-P 3XX Public Health Education Intervention Methods (3 cr.)
- PBHL- P 3XX Program Planning in Public Health (3 cr.)
- PBHL-P 400 Topics in Public Health (3 cr.)
- PBHL-P466 Public Health Field Experience (3 cr.)
- ANTH-A 377 African American Health Care (3 cr.)
- ANTH-A 460 Disease and Human Evolution (3 cr.)
- ANTH-B 370 Human Variation (3 cr.)
- ANTH-E 445 Medical Anthropology (3 cr.)
- COMM-C 392 Health Communication (3 cr.)
- ECON-E 307 Current Economic Issues: Health Economic Issues (3 cr.)
- ECON-E 387 Health Economics (3 cr.)
- HIST-H 364 History of Medicine and Public Health (3 cr.)
- MHHS-M 492 Topics in Medical Humanities/Health Studies (3 cr.)
- PHIL-P 393 Biomedical Ethics (3 cr.)
- PSY-B 365 Stress & Health (3 cr.)
- PSY-B 394 Drugs and Behavior (3 cr.)
- PSY-B 396 Alcohol, Alcoholism, and Drug Abuse (3 cr.)
- REL-R 384 Religion, Ethics and Health (3 cr.)
- SHRS-N 250 Health & Rehabilitation Systems Across the World (3 cr.)
- SHRS-N 310 Aging and the Older Person (3 cr.)
- SHRS-N 340 Psychological Aspects of Disabilities (3 cr.)
- SHRS-N 350 Survey of Programs for Older Adults (3 cr.)
- SHRS-N 370 Psychosocial Aspects of Aging (3 cr.)
- SOC-R 285 AIDS and Society (3 cr.)
- SOC-R 321 Women and Health (3 cr.)
- SOC-R 382 Social Organization of Health Care (3 cr.)
- SOC-R 415 Sociology of Disability (3 cr.)

Degree Electives

A minimum of 102 credit hours of required courses are listed for this curriculum (48 credit hours in general education, 30 credit hours in the major, and 24 public health electives). In

addition, students must take a sufficient number of elective courses to total a minimum of 120 credit hours.

Grade Point Average Requirement

In order to be admitted to this degree program, a student must have earned a 2.5 undergraduate cumulative and previous semester GPA. In addition, students must maintain at least a 2.5 semester and cumulative grade point average (GPA) to remain in good academic standing and graduate from this program.

Program Deviations

Course substitutions and course waivers must be approved by the faculty advisor.

Internships and Research

Internship Program

In hiring decisions, employers give preference to students who have related work experience, and internships are an excellent way to gain related work experience and an investment in the students future that will have long-term benefits. IUPUI posts many more internship opportunities than are filled each year, which means that students can choose among many various experiences to acquire job skills and contacts for future positions.

The Environmental Health Science major requires 3 credits of internship, which is equivalent to 240 contact hours. The Health Services Management major (B.S.H.S.M.) allows students to take 1-6 credit hours of internship (1 credit hour = 80 contact hours) as elective credit.

In addition to local opportunities, students are encouraged to consider internship experiences with national or international organizations. More information on the process of acquiring and registering for an internship is available at the Department of Public Health website, link to [Completing the Internship](#).

JRCOSTEP (for Environmental Health Science majors)

Each year, the U.S. Public Health Service hires about 25-35 students for summer Junior Commissioned Officer Student Training and Extern Program (JRCOSTEP) positions. These positions are available to students in environmental health degree programs accredited by the National Environmental Health Science and Protection Council, and the B.S.P.H is one of these programs. Most JRCOSTEP positions are with the Indian Health Service (IHS) in many different areas of the United States, including Alaska. Other agencies that typically hire one or two JRCOSTEPs per summer are: ATSDR, CDC, Coast Guard, and the National Park Service.

The JRCOSTEP students are Commissioned Officers for the summer and they earn about \$2000 a month as an Ensign in the Public Health Service. In addition to being paid, JRCOSTEPs have unique opportunities to apply what they have learned to environmental health issues and to gain new knowledge, skills and abilities related to real world problems.

These positions are competitive, so students are encouraged to meet with the Director of Undergraduate Education shortly after they enter the B.S.P.H degree program to discuss their interest in the JRCOSTEP program, to learn more about

students experiences in the program, and to discuss strategies to strengthen their applications.

National Student Research Competition (for Environmental Health Science majors)

Students are invited to enter a national research competition sponsored by the Association of Environmental Health Academic Programs (AEHAP). This competition is available only to students enrolled in degree programs accredited by the National Environmental Health Sciences and Protection Council, and the B.S.P.H is one of these programs.

Students whose projects are selected as winners will be invited to give a 20-minute presentation at the National Environmental Health Association's Annual Educational Conference and Exhibition. Students may win a \$500 award and up to \$1,000 in travel expenses to the annual conference. Projects are typically submitted in April for consideration for the June conference, so it is important to get started early. The research submission guidelines are available at http://www.aehap.org/students/scholarships_srcompition.htm. Students are encouraged to consider this opportunity and discuss their interest with their faculty mentor.

Minors

Environmental Health Science (5 courses, 15 credit hours minimum)

The minor in environmental health science is designed to introduce students to selected aspects of current thinking and research on the nature, causes, and solutions of environmental problems as they affect human health and the environment. After completing the survey course on environmental health, students may select four (4) courses from a list of courses that includes toxicology, water and wastes, air pollution, policy, food science, workplace health and safety, data analysis, and techniques in environmental health.

Eligibility and Application Procedure

1. Students enrolled in baccalaureate programs at Indiana University or other accredited colleges or universities who are in good academic standing may pursue the minor in environmental health science, providing they have completed two semesters of college level chemistry and a college level course in algebra (or higher math course).
2. Public Health students majoring in Environmental Health Science are not eligible for the Environmental Health Science minor.
3. Students must declare their intention to receive a minor by completing an application, which is available online or at the Department of Public Health Student Services, 714 N. Senate Avenue, EF 200. Students may also contact the Undergraduate Academic Advisor at 317-278-0753 for the application or if they have questions. This application should be completed at the same time the student completes an application for graduation for the baccalaureate degree.
4. Students who successfully complete the requirements for the Environmental Health Science minor with a 2.0 GPA or above for all courses credited to the minor will have the minor conferred with their degree.

NOTE: Some courses listed below are not offered every semester. Students should check with the Undergraduate Academic Advisor to determine the availability of specific courses at given times.

Minor Requirements (5 courses, 15 credit hours minimum)

The following course:

- PBHL-A316 Environmental Health (3 cr.)

FOUR of the following courses:

- PBHL-A 410 Introduction to Environmental Toxicology (3 cr.)
- PBHL-A 424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.)
- PBHL-A 451 Air Pollution and Control (3 cr.)
- PBHL-A 416 Environmental Health Policy (3 cr.)
- PBHL-A 428 Food Science and Sanitation (3 cr.)
- PBHL-A 433 Industrial Hygiene and Radiological Health (3 cr.)
- PBHL-A 459 Environmental Science and Health Data Analysis (3 cr.) **P: PBHL-A 316, 1 semester each of statistics and chemistry**
- PBHL-A 460 Techniques in Environmental Science and Health (3 cr.) **P: PBHL-A459**

Program Deviations - Course substitutions and course waivers must be approved by the faculty advisor.

Health Systems Administration (5 courses, 15 credit hours)

The minor in Health Systems Administration is designed to introduce students to selected aspects of current thinking and research on the administration of health systems. After completing the survey course on health systems administration, students may select four (4) courses from a list that includes health care finance and budgeting, human resources, economics, strategic planning, policy, marketing, and law.

Eligibility and Application Procedure

1. Students enrolled in baccalaureate programs at Indiana University who are in good academic standing may pursue the minor in health systems administration.
2. Public Health students in the BSHSM are not eligible for the Health Systems Administration minor.
3. Students must declare their intention to receive a minor by completing an application, which is available online or at the Department of Public Health Student Services, 714 N. Senate Avenue, EF 200. Students may also contact the Undergraduate Academic Advisor at 317-278-0753 for the application or if they have questions. This application should be completed at the same time the student completes an application for graduation for the baccalaureate degree.
4. Students who successfully complete the requirements for the Health Systems Administration minor with a 2.0 GPA or above for all courses credited to the minor will have the minor conferred with their degree.

Minor Requirements (5 courses, 15 credit hours minimum)

The following course:

- PBHL-H 320 Health Systems Administration (3 cr.)

FOUR of the following courses (12 credit hours):

- PBHL-H 352 Health Finance and Budgeting (3 cr.) **P: BUS-A 200, BUS-A 201, OR PBHL-A200**
- PBHL-H 353 Advanced Health Finance and Budgeting (3 cr.) **P: PHBL-H 352**
- PBHL-H 354 Health Economics (3 cr.)
- PBHL-H 401 Strategic Planning for Health Care Organizations (3 cr.)
- PBHL-H 420 Health Policy (3 cr.) **P: PBHL-H 320**
- PBHL-H 432 Health Care Marketing (3 cr.)
- PBHL-H 441 Legal Aspects of Health Care Administration (3 cr.) **OR**
- SPEA-V 376 Law and Public Policy (3 cr.)
- PBHL-P 400 Topics in Public Health (3 cr.)
- PBHL-H 456 Managed Care (3 cr.)
- PBHL-H 472 Applied Health Administration (3 cr.) **P: PBHL-H 474**
- SPEA-V 373 Human Resources Management in the Public Sector (3 cr.)
- PBHL-H380 Internship in Health Services Management (1-3 cr.)

Program Deviations - Course substitutions and course waivers must be approved by the faculty advisor.

RISE

The **RISE to the IUPUI Challenge** is a campus initiative that challenges students to include at least two of the four rise experiences (research, international, service learning, and experiential learning) into their academic programs of study. The Department of Public Health fully supports this initiative and encourages students to take advantage of these additional opportunities to enhance their intellectual and professional development. Students who participate in RISE will gain valuable skills, knowledge, and experiences valued by employers. After a student successfully completes at least two RISE experiences, a notation will be placed on the students official transcript recognizing this milestone. More information about the RISE initiative is available at <http://academicaffairs.iupui.edu/plans/rise.cfm>.

Bachelor of Science in Public Health - Environmental Health Science Major

The Bachelor of Science in Public Health (B.S.P.H.) degree combines a liberal arts education with a professional orientation. Students receive a broad general education in communications, arts and humanities, social sciences, natural sciences, and quantitative methods. The curriculum introduces students to the complex public health issues and environmental health problems facing contemporary society at the local, regional, national, and global levels. It fosters appreciation for the interdisciplinary nature of these issues and that problem-solving occurs in politically and culturally diverse environments. The curriculum develops students' critical thinking and problem-solving abilities, oral and written communication skills, and organizational skills so they are prepared to enter a broad range of organizations in a variety of entry level positions.

A student who is awarded the Bachelor of Science in Public Health – Environmental Health Science major will demonstrate the IUPUI Principles of Undergraduate Learning (PULs), which were initially approved in 1998 and revised in 2007 by the faculty (<http://academicaffairs.iupui.edu/plans/pul/>) and learning outcomes specific to the major.

The PULs, which underpin an IUPUI student's general education and permeate education in the major, tell our students and other stakeholders what an IUPUI undergraduate will know and be able to do upon graduation. The PULs provide the overarching learning outcomes for each student's education at IUPUI, and these, in turn, are linked to the learning outcomes for each degree program and for courses in each degree program.

BSPH Learning Outcomes

The B.S.P.H. - Environmental Health Science major prepares students to anticipate, recognize, evaluate, and solve problems in environmental science and health using knowledge, tools, and skills appropriate to entry- and mid-level environmental health science positions. The learning outcomes for the Environmental Health Science major are given below along with the PULs addressed in each learning outcome and the general education courses and courses in the major that support each learning outcome.

A student who graduates with the B.S.P.H. - Environmental Health Science major will demonstrate the mastery of the following learning outcomes:

1. Communicate effectively with diverse stakeholders individually and in group settings using verbal, written, and electronic modes of communication. (PUL 1)

Courses in the Major: SPEA-V170, V263/V366; PBHL-A416, A316, A460, A416, A380/A466

General Education Courses: ENG-W131, ENG-W231/BUS-X204/TCM-220; COMM-R110, C223; GEOG-G338; SPEA-V261/V360

2. Apply statistical and other quantitative analysis tools and techniques to identify, characterize, and manage issues and problems in environmental science and health. (PULs 1d and e, 2, 3, 4)

Courses in the Major: PBHL-A322, A459, A460, A423, A433, A451

General Education Courses: SPEA-K300 or approved statistics course, SPEA-V261/V369; GEOG-G338, MATH-15300, 15400

3. Anticipate, recognize, evaluate, and solve environmental science and health problems by applying scientific and technical knowledge and principles. (PULs 1, 2, 3, 4)

Courses in the Major: PBHL-A316, A416, A322, A459, A460, A410, A423, A428, A433, A451

General Education Courses: SPEA-K300; GEOG-G338; BIOL-N212/213, N251; PHYS-P201; CHEM-C105/125, 106/126, C341/343; two additional science courses

4. Monitor a community's environmental health status using epidemiological tools, laboratory techniques, and field methods appropriate to individual issues. (PUL1, 2,3, 4)

Courses in the Major: PBHL-A322, A459, A460, A380/A466

General Education Courses: BIOL-N251; PHYS-P201; CHEM-C105/125, 106/126, 341/343; SPEA-K300; GEOG-G338

5. Participate in developing and implementing plans and policies to improve environmental health using scientific and technical knowledge. (PULs 1, 2, 3, 4, 5, 6)

Courses in the Major: SPEA-V170, PBHL-A316, A416, A322, A459, A460, A423, A433, A451

6. Work effectively in a team-setting by applying organizational knowledge and leadership skills. (PULs 1, 2, 3, 4, 5, 6)

Courses in the Major: SPEA- V263/V366; PBHL-A316, A416, A459, A460, A380/A466

7. Recognize and demonstrate sensitivity to diverse points of view. (PUL 5)

Courses in the Major: SPEA-V170, V263/V366; PBHL-A316, A380/A466

General Education Courses: approved courses in the social sciences and humanities

8. Seek principled solutions to environmental health problems. (PUL 6)

Courses in the Major: SPEA-V170; PBHL- A322; A316, A416, A423; A433, A451, A460

General Education Courses: approved courses in the social sciences and humanities

Bachelor of Science in Health Services Management

The Bachelor of Science in Health Services Management (B.S.H.S.M) degree combines a liberal arts education with a professional orientation. Students receive a broad general education in communications, arts and humanities, social sciences, natural sciences, and quantitative methods. The curriculum introduces students to the complex issues involved in the delivery of health care at the local, regional, national, and global levels. It fosters appreciation for the interdisciplinary nature of these issues and that problem-solving occurs in political and culturally diverse environments. The curriculum develops students' critical thinking and problem-solving abilities, oral and written communication skills, and organizational skills so they are prepared to enter a broad range of organizations in a variety of entry level positions.

A student who is awarded the Bachelor of Science in Health Services Management degree will demonstrate the [IUPUI Principles of Undergraduate Learning \(PULs\)](#), which were initially approved in 1998 and revised in 2007 by the faculty.

The PULs, which underpin an IUPUI students general education and permeate education in the major, tell our students and other stakeholders what an IUPUI undergraduate will know and be able to do upon graduation. The PULs provide the overarching learning outcomes for each students education at IUPUI, and these, in turn, are linked to the learning outcomes for each degree program and for courses in each degree program.

B.S.H.S.M Learning Outcomes

Graduates of the Bachelor of Science in Health Services Management learn to anticipate, recognize, evaluate, and solve problems in health services organizations using knowledge, tools, and skills appropriate to entry- and mid-level health services management positions. The learning outcomes for the Health Services Management major are given below along with the PULs addressed in each learning outcome and the courses that address each learning outcome.

At student who graduates with the Bachelor of Science in Health Services Management degree will demonstrate the mastery of the following learning outcomes:

1. Communicate effectively with diverse stakeholders, including public health and health care professionals, individually and in group settings using verbal, written, and electronic modes of communication. (PUL 1)

Courses in the Major: PBHL-H120, H320, H322, H353, H401, H474, H316, H432, H441, H465, H380, H466; SPEA-V263, V362, V366, V348, V443, V491

2. Use statistical and other quantitative analysis tools and techniques to understand issues and problems in health care organizations and systems. (PUL 1d, 2; also PUL 3, 4)

Courses in the Major: PBHL-H352, H322, H316, H432; SPEA-V362

3. Use basic financial tools, principles and practices to review and analyze financial performance of organizations and implement controls as required. (PUL 1d, 2; also PUL 3,4)

Courses in the Major: PBHL-H352, H353

4. Apply human resource best practices for management of human capital in an organization. (PULs 4, 5)

Courses in the Major: SPEA-V366, V373, V443, V435

5. Use marketing concepts and skills to analyze markets, develop marketing plans, and measure the impact of marketing activities to raise awareness and increase growth of the organizations market share. (PULs 2, 3, 4)

Courses in the Major: PBHL-H432

6. Participate in developing and implementing plans and policies to improve the delivery of health services. (PULs 2, 3, 4, 5, 6)

Courses in the Major: PBHL-H320, H401; SPEA-V263, V362, V348, V379

7. Work individually and within a team-setting by applying organizational knowledge and leadership skills. (PULs 1, 2, 3, 4, 5, 6)

Courses in the Major: PBHL-H352, H353; SPEA-V263, V362, V366

8. Recognize and demonstrate sensitivity to diverse points of view. (PUL 5)

Courses in the Major: PBHL-H352, H354, H401, H420; SPEA-V362, V366, V443

9. Seek principled solutions to health services delivery issues. (PUL 6)

Courses in the Major: PBHL-H316, H320, H354, H401, H472, H474

Student Learning Outcomes

Bachelor of Science

- Health Services Management
- Public Health (Community Health Major)
- Public Health (Environmental Health Science Major)

Certificates and Minors

- Environmental Health Science Minor
- Environmental Studies Certificate
- Public Health Certificate

Certificates and Minors

Certificate in Environmental Studies

A student who earns the Certificate in Environmental Studies will demonstrate the following learning outcomes:

- Describe the major components of the Earth's systems and the role these play in environmental problems and solutions.
- Apply basic principles of chemistry, geology, and ecology to the identification of environmental problems and solutions.
- Identify key contaminants that pollute the air, land, water or the built environment and articulate common sources of these materials.
- Recognize how economics and finance contribute to the creation and solution of environmental problems.
- Describe techniques that are used to eliminate or control hazards that can cause harm to human health and the environment.

Certificate in Public Health

A student who earns the Certificate in Public Health will demonstrate the following learning outcomes:

- Describe contemporary environmental issues in terms of sources, effects, and solutions.
- Characterize the distribution of health effects from environmental contaminants using common epidemiological principles and techniques.
- Locate and interpret environmental regulations focused on air, land, or water pollution.
- Apply the commonly used mathematical and scientific principles to the identification and solution of environmental problems.

Minor in Environmental Health Science

A student who earns the Minor in Environmental Health Science will demonstrate the following learning outcomes:

- Describe the ways humans can have a negative impact on their environment.
- Identify contaminants and common sources of these contaminants that pollute the air, land, and water, and built environment.
- Explain ways humans are exposed to environmental pollution and the adverse effects it can have on health and safety.

- Explain the approaches that are used to assess the scope and extent of risk associated with environmental/occupational hazards.
- Describe the techniques that are used to eliminate or control hazards that can cause harm to human health and the environment.

Bachelor of Science in Public Health - Community Health Science Major

The B.S.P.H. major in Community Health will prepare students to provide health education, promote healthy lifestyles and healthy choices, prevent diseases, and enhance quality of life in communities. Students will obtain a foundation in understanding the social determinants of health, distribution of health and illness in diverse populations, and the disease risks among human populations.

The Community Health major focuses on interdisciplinary efforts to address the physical, social, behavioral, mental, and environmental health concerns of communities and population at risk for disease and injury. Graduates will plan and evaluate health services in communities. They will coordinate the community efforts of government agencies and private organizations.

Competencies

The competencies for the B.S.P.H. in Community Health are:

1. Assess individual and community needs for health education.
2. Plan health education strategies, interventions, and programs.
3. Implement health education strategies, interventions, and programs.
4. Conduct evaluation and research related to health education.
5. Administer health education strategies, interventions, and programs.
6. Serve as a health education resource person.
7. Communicate and advocate for health and health education.

Undergraduate Programs

General Information

The Department of Public Health offers undergraduate degrees, certificates, and minors.

Bachelor of Science Degrees

- Bachelor of Science in Public Health, Environmental Health Science major (accredited by the National Environmental Health Science and Protection Accreditation Council)
- Bachelor of Science in Health Services Management (B.S.H.S.M.)

Certificates

- Environmental Studies
- Public Health

Minors

- Environmental Health Science
- Health Systems Administration

General information concerning these programs can be obtained by linking to the undergraduate degree, certificate or minor in this bulletin or by visiting our Web site at <http://www.pbhealth.iupui.edu/>.

Admissions

Ph.D. Programs

- Ph.D. in Epidemiology
- Ph.D. in Health Policy and Management

Master's Programs

- Master of Health Administration (M.H.A.)
- Master of Public Health (M.P.H.)

Joint Degree Programs

- Master of Health Administration-Doctor of Jurisprudence (M.H.A.-J.D.)
- Master of Health Administration-Master of Business Administration (M.H.A.-M.B.A.)

Graduate Certificates

- Health Policy
- Health Systems Management
- Public Health

Certificate Admissions

Certificate in Health Policy

The Graduate Certificate in Health Policy adheres to the same admission criteria as the M.H.A. Program. To view M.H.A. admission criteria and how to apply, please visit M.H.A. Admissions.

Certificate in Health Systems Management

The Graduate Certificate in Health Systems Management adheres to the same admission criteria as the M.H.A. Program. To view M.H.A. admission criteria and how to apply, please visit M.H.A. Admissions.

Certificate in Public Health

The Graduate Certificate in Public Health adheres to the same admission criteria as the M.P.H. Program. To view M.P.H. admission criteria and how to apply, please visit M.P.H. Admissions.

Dual Degree Admissions

Master of Health Administration-Doctor of Jurisprudence (M.H.A.-J.D.)

Applicants must apply for admission to each school and must meet the admission criteria published in each school's bulletin. Normally, applicants should apply to both the School of Law-Indianapolis and the Indiana University School of Medicine's Department of Public Health at the same time. However, a person enrolled in the School of Law may apply for admission to the Graduate Program in Health Administration up to the end of the second year of law study (approximately 57 credit hours). A student formally enrolled

in the study of health administration may seek admission to the School of Law-Indianapolis up to the end of the first year of full-time study leading to the award of the Master of Health Administration (approximately 30 hours of graduate credit).

Department of Public Health M.H.A. Admissions
School of Law-Indianapolis J.D. Admissions

Master of Health Administration-Master of Business Administration (M.H.A.-M.B.A.)

To participate in the joint program, students must apply to and be accepted into both the Indiana University School of Medicine's Department of Public Health, Master of Health Administration program and the Indianapolis Kelley School of Business Master of Business Administration program.

Department of Public Health M.H.A. Admissions
Kelly School of Business-Indianapolis M.B.A. Admissions

M.H.A. Admissions

Application, admission, and degree-granting requirements and regulations shall be applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin. All applicants must have a bachelor's degree from an accredited university or college, show evidence of satisfactory preparation in math and computer skills and have acceptable academic record.

Fall Semester Deadlines: The deadline for submission for *International* applicants is February 1. The deadline for submission for *U.S.* applicants is July 15. Applications received after these dates will not be given priority.

Mandatory Orientation Dates and Times: Check the Department of Public Health's website for specific information. Under *Academic Programs* click *Master of Health Administration (M.H.A.)*, on the right-hand navigation click *Admissions*.

Spring Semester Deadlines: The Master in Health Administration (M.H.A.) Program does not accept applications for admission in the spring term; students are admitted for matriculation in the fall only. The only exception to this is if the applicant has completed the Graduate Certificate in Health Systems Management from IU, in which case the applicant may be considered for spring admission.

Transfer Credit: Students transferring from an accredited program or school may transfer up to 9 credit hours of coursework, in which a grade of B or better was awarded, into the M.H.A. Program. To be considered for transfer credit, submission of the course syllabus and Request for Evaluation of Transfer Credit Form is required. Please note that a separate form must be completed for each course requesting to be evaluated for transfer. Students will be notified by mail regarding the results of their request(s) for transfer credit.

Click here and scroll down to access the [Evaluation of Transfer of Credit Form](#).

Criteria for Applicants

Both International and U.S. Applicants must possess a baccalaureate degree from an accredited university or college, submit their official GRE scores, send in your official transcripts*, complete undergraduate courses in accounting,

microeconomics, and statistics, and show competency in communication skills (written and oral).

***NOTE:** If you attended any Indiana University campus, you do not need to send transcripts for your IU credits.

Students meeting the above requirements are not guaranteed admission. Other admission factors include references, the personal statement, and personal interview (if applicable).

Application Instructions

If you are applying to a dual program, please be sure to send copies of all documents to both programs. Students who have completed the Graduate Certificate in Health Systems Management or Health Policy and are applying to the M.H.A. program must complete a new application using new log in information. Your application will be reviewed by the M.H.A. Admissions Committee once all supporting documents and requirements have been met.

When filling out the [online application](#), you must select either *Master of Health Administration* or *Graduate Certificate in Health Policy or Health Systems Management* as the program of your choice.

Application Fee

International Applicants: Applicants who hold non-immigrant or exchange visas are required to submit application and application fee to the Office of International Affairs (OIA). Applicants with a US citizenship, Permanent Residency, Asylee or Refugee status with a foreign bachelor degree are required to submit application and application fee to the Office of International Affairs (OIA).

U.S. Applicants: A non-refundable \$50.00 fee (only payable by American Express, Discover, MasterCard, or Visa) is required in order to process application.

Graduate Record Examination (GRE)

Applicants are required to submit official scores from the GRE taken within the past 5 years. A minimum total score (Verbal and Quantitative scores combined) of 1000 is expected of applicants. When submitting your GRE scores, use IUPUI school code 1325 and departmental code 0616. Information about the GRE is available at www.gre.org. The following exams can be substituted for the GRE: LSAT, GMAT, or MCAT. A petition to waive the GRE can be submitted with the application if individuals (1) already have a graduate or professional degree or (2) completed a graduate certificate from the IU Department of Public Health with a GPA of 3.5 or higher. Mail submitted score to:

IU Department of Public Health Admission
Master of Health Administration Program 714 N. Senate Avenue Suite 250 Indianapolis, IN 46202

The GRE is in the process of revising the scoring system. Visit www.GRE.org for more information.

Revised GRE Scoring System

*GRE revised General Test (taken on or after August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	130 - 170 (1 point increments)
Quantitative Reasoning	130 - 170 (1 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** GRE® revised General Test Scores will be reported beginning in November 2011. View the [detailed score reporting schedule](#). If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure. Scores are valid for five years.

*GRE General Test (taken prior to August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	200 - 800 (10 point increments)
Quantitative Reasoning	200 - 800 (10 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** In November, a newly designed score report will be introduced when score reporting begins for the GRE revised General Test. For individuals who took the GRE General Test prior to August 1, 2011, the score report will include your Verbal Reasoning and Quantitative Reasoning scores on the 200-800 scale as well as estimated Verbal Reasoning and Quantitative Reasoning scores on the new 130-170 score scale.

If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure.

Test of English as a Foreign Language (TOEFL)

Applicants who are not native English speakers or who received their bachelor's degree outside the United States must submit official TOEFL scores (taken within the past two years) or proof of English proficiency. Scores can be sent to IUPUI School Code 1325 or mailed to:

IU Department of Public Health Admission
Master of Health Administration Program
714 N. Senate Avenue Suite 250
Indianapolis, IN 46202

The following TOEFL score is expected of applicants to the MHA program:

Internet-based TOEFL	minimum score: 106
Computer-based TOEFL	minimum score: 263
Paper-based TOEFL	minimum score: 620
IELTS	minimum score: 7

For more information on IUPUI TOEFL requirements, visit the Office of International Affairs. For more information about the TOEFL exam, visit www.toefl.org.

IUPUI English Placement Test

International students who reside in the U.S. at the time of application must submit either TOEFL, IELTS or IUPUI EAP (English for Academic Purposes) exam scores. International applicants who do not reside in the U.S. at the time of application must submit their TOEFL or IELTS scores with their application and, if admitted to the MHA Program, must also complete the EAP Exam upon arrival to Indianapolis. The USMLE and ECFMG do not fulfill the required proof of English proficiency when applying to the MHA Program. Applicants who have passed the USMLE or ECFMG must also submit TOEFL, IELTS or EAP scores.

For further information on the EAP, contact the http://liberalarts.iupui.edu/english/index.php/academics/eap/eap_home.

Personal Statement

The personal statement should be a minimum of 500 words and a maximum of 750 words in length and can be uploaded to the online application. In your own words, describe experiences that have shaped your interest in health administration. Indicate why you are interested in the MHA Program or Graduate Certificate in Health Policy or Health Systems Management. Outline your professional goals; immediate and long term. In your personal statement, it is imperative that you cite your sources if you include any statements or quotes that are not your original thought. All personal statements are submitted to www.turnitin.com by the Department of Public Health to ensure originality and proper citation.

Resume

Applicants must submit a resume. For each position on the resume, provide the job title, employing agency, dates employed, and responsibilities held. Indicate any additional strengths or skills such as fluency in foreign languages, research experience, teaching experience, community service and demonstration of leadership skills. Include professional certifications, honors, and awards. Please email your resume to pbhealth@iupui.edu or mail it to:

IU Department of Public Health Admission
Master of Health Administration Program
714 N. Senate Avenue Suite 250
Indianapolis, IN 46202

Transcripts

You will need to submit official transcripts, marksheets and diplomas from all colleges/universities attended. The IUPUI Office of International Affairs will evaluate your transcripts to determine if eligibility requirements for graduate study have been met. Official documents should be mailed to:

IU Department of Public Health Admission
Master of Health Administration Program
714 N. Senate Avenue Suite 250
Indianapolis, IN 46202

Recommendations

The MHA Program expects that at least three letters of recommendations will be submitted from professional sources that can provide an unbiased critical assessment of your abilities, skills, and strengths and weaknesses. Examples of professional and academic sources are academic advisors, professors, preceptors or immediate supervisors. Examples of sources that are not acceptable include coworkers, colleagues, classmates and relatives.

NOTE: All recommenders are required to provide an e-mail address for online submission. If electronic submission is not possible, click here and scroll down to access the MHA Recommendation Form. This link applies to both U.S. and International applicants.

Interview

A personal interview is required of any applicant who:

- has earned a undergraduate degree within the year they are applying or
- holds a baccalaureate degree earned outside the United States or
- is invited at the discretion of the Admission Committee.

Photo

Applicants are required to email a clear and visible 2 x 3 photo taken with the last 12 months to pbhealth@iupui.edu.

M.H.A. Supplemental Questions

M.H.A. applicants are also required to provide responses to supplemental questions. Click here and scroll down to access the Admissions Supplemental Questions. Email responses to pbhealth@iupui.edu.

Helpful Websites

Graduate Record Examination, (GRE) - <http://www.gre.org>
Educational Testing Service (ETS) - <http://www.ets.org>
IUPUI Office of International Affairs
- <http://international.iupui.edu>
IUPUI Office of Financial Aid - <http://www.iupui.edu/finaid/>

M.P.H. Admissions

Application, admission, and degree-granting requirements and regulations shall be applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin. All applicants must have a bachelors degree from an accredited university or college, show evidence of satisfactory preparation in math and computer skills and have acceptable academic record.

Fall and Spring Semester Deadlines: To view the semester deadlines visit the Department of Public Health's website. Under *Academic Programs* click *Master of Public Health*. In the right-hand navigation click *Admission*.

Transfer Credit

[Evaluation of Transfer or Credit Form](#)

A non-CEPH accredited M.P.H. program

The Department of Public Health will consider up to 9 credit hours of graduate work for transfer into the MPH Program. Students transferring from a non-CEPH (Council on Education for Public Health) accredited program or school may transfer no more than 9 credit hours of coursework, in which a grade of B or better was awarded, into the M.P.H. Program. To be considered for transfer credit, submission of the course syllabus and Request for Evaluation of Transfer Credit Form is required. Please note that a separate form must be completed for each course requesting to be evaluated for transfer. Students will be notified by mail regarding the results of their request(s) for transfer credit.

A CEPH accredited M.P.H. program

Students transferring from a CEPH accredited program or school may transfer up to 15 credit hours of coursework, in which a grade of B or better was awarded, into the MPH Program. To be considered for transfer credit, submission of the course syllabus and Request for Evaluation of Transfer Credit Form is required. Please note that a separate form must be completed for each course requesting to be evaluated for transfer. Students will be notified by mail regarding the results of their request(s) for transfer credit.

Application, admission, and degree-granting requirements and regulations shall be applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin.

applicants must have a bachelor's degree from an accredited university or college, show evidence of satisfactory preparation in math and computer skills and have acceptable academic record.

Criteria for Applicants

Both International and U.S. Applicants must possess a baccalaureate degree from an accredited university or college, submit their official GRE scores*, send in your official transcripts**, complete a minimum of one year of undergraduate mathematics (e.g. algebra, statistics or finite math), and show competency in communication skills (written and oral).

***NOTE:** Submit GRE scores if cumulative undergraduate GPA is below a 3.0 or if you are an international student.

**If you attended any Indiana University campus, you do not need to send transcripts for your IU credits.

Students meeting the above requirements are not guaranteed admission. Other admission factors include references, the personal statement, and personal interview (if applicable).

Application Instructions

If you are applying to a dual program, please be sure to send copies of all documents to both programs. Students who have completed the Graduate Certificate in Public Health and are applying to the MPH Program must complete a new application using new log in information.

When filling out the [online application](#), you must select either *Master of Public Health* or *Graduate Certificate in Public Health* as the program of your choice. Your application will be reviewed by the MPH Admission Committee once all supporting documents and requirements have been met.

Application Fee

International Applicants: Applicants who hold non-immigrant or exchange visas are required to submit application and application fee to the Office of International Affairs (OIA). Applicants with a US citizenship, Permanent Residency, Asylee or Refugee status with a foreign bachelor degree are required to submit application and application fee to the Office of International Affairs (OIA).

U.S. Applicants: A non-refundable \$50.00 fee (only payable by American Express, Discover, MasterCard, or Visa) is required in order to process application.

Graduate Record Examination (GRE)

Applicants with a GPA below a 3.0 or international applicants with a bachelor's degree earned a country outside the U.S. are required to submit official scores from the GRE taken within the past 5 years. The GRE is not required of applicants who have a graduate or professional degree from a U.S. or Canadian college or university. A minimum total score (Verbal and Quantitative scores combined) of 1000 is expected of applicants. When submitting your GRE scores, use IUPUI school code 1325 and departmental code 0616. Information about the GRE is available at www.gre.org. The following exams can be substituted for the GRE: DAT, ECFMG, LSAT, OAT, GMAT, MCAT, or USMLE. A petition to waive the GRE can be submitted with the application if individuals (1) already have a graduate or professional degree or (2) completed a graduate certificate from the IU

Department of Public Health with a GPA of 3.5 or higher. Mail submitted score to:

IU Department of Public Health Admission 714 N. Senate Avenue Suite 250 Indianapolis, IN 46202
The following GRE scores are expected of applicants to the MPH program:

Verbal Reasoning	minimum score: 450
Verbal & Quantitative Combined	minimum score: 1000
Analytic Writing	4.0

The GRE is in the process of revising the scoring system. Visit www.GRE.org for more information.

Revised GRE Scoring System

*GRE revised General Test (taken on or after August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	130 - 170 (1 point increments)
Quantitative Reasoning	130 - 170 (1 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** GRE® revised General Test Scores will be reported beginning in November 2011. View the [detailed score reporting schedule](#). If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure. Scores are valid for five years.

*GRE General Test (taken prior to August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	200 - 800 (10 point increments)
Quantitative Reasoning	200 - 800 (10 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** In November, a newly designed score report will be introduced when score reporting begins for the GRE revised General Test. For individuals who took the GRE General Test prior to August 1, 2011, the score report will include your Verbal Reasoning and Quantitative Reasoning scores on the 200-800 scale as well as estimated Verbal Reasoning and Quantitative Reasoning scores on the new 130-170 score scale.

If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure.

Test of English as a Foreign Language (TOEFL)

Applicants who are not native English speakers or who received their bachelor's degree outside the United States must submit official TOEFL scores (taken within the past two years) or proof of English proficiency. Scores can be sent to IUPUI School Code 1325 or mailed to:

IU Department of Public Health Admission 714 N. Senate Avenue Suite 250 Indianapolis, IN 46202
The following TOEFL score is expected of applicants to the MHA program:

Internet-based TOEFL	minimum score: 106
Computer-based TOEFL	minimum score: 263
Paper-based TOEFL	minimum score: 620
IELTS	minimum score: 7

For more information on IUPUI TOEFL requirements, review the Office of International Affairs section on [English proficiency for graduate students](#). For more information about the TOEFL exam, visit www.toefl.org.

IUPUI English Placement Test

International students who reside in the U.S. at the time of application must submit either TOEFL, IELTS or IUPUI EAP (English for Academic Purposes) exam scores. International applicants who do not reside in the U.S. at the time of application must submit their TOEFL or IELTS scores with their application and, if admitted to the MHA Program, must also complete the EAP Exam upon arrival to Indianapolis. The USMLE and ECFMG do not fulfill the required proof of English proficiency when applying to the MPH Program. Applicants who have passed the USMLE or ECFMG must also submit TOEFL, IELTS or EAP scores.

For further information on the EAP, contact the http://liberalarts.iupui.edu/english/index.php/academics/eap/eap_home.

Personal Statement

The personal statement should be a minimum of 500 words and a maximum of 750 words in length and can be uploaded to the online application. In your own words, describe experiences that have shaped your interest in health administration. Indicate why you are interested in the MPH Program or Graduate Certificate in Public Health. Outline your professional goals; immediate and long term. In your personal statement, it is imperative that you cite your sources if you include any statements or quotes that are not your original thought. All personal statements are submitted to www.turnitin.com by the Department of Public Health to ensure originality and proper citation.

Resume

Applicants must submit a resume. For each position on the resume, provide the job title, employing agency, dates employed, and responsibilities held. Indicate any additional strengths or skills such as fluency in foreign languages, research experience, teaching experience, community service and demonstration of leadership skills. Include professional certifications, honors, and awards. Please email your resume to pbhealth@iupui.edu or mail it to:

IU Department of Public Health Admission 714 N. Senate Avenue Suite 250 Indianapolis, IN 46202

Transcripts

You will need to submit official transcripts, marksheets and diplomas from all colleges/universities attended. Your undergraduate cumulative GPA will be calculated based on all undergraduate transcripts. The IUPUI Office of International Affairs will evaluate your transcripts to determine if eligibility requirements for graduate study have been met. Official documents should be mailed to:

IU Department of Public Health Admission 714 N. Senate Avenue Suite 250 Indianapolis, IN 46202

Recommendations

The MPH Program expects that at least three letters of recommendations will be submitted from professional

sources that can provide an unbiased critical assessment of your abilities, skills, and strengths and weaknesses. Examples of professional and academic sources are academic advisors, professors, preceptors or immediate supervisors. Examples of sources that are not acceptable include coworkers, colleagues, classmates and relatives.

NOTE: All recommenders are required to provide an e-mail address for online submission. If electronic submission is not possible, click here to download a pdf version of the [MPH Recommendation Form](#).

Interview

A personal interview is required of any applicant who:

- has earned a undergraduate degree within the year they are applying or
- holds a baccalaureate degree earned outside the United States or
- is invited at the discretion of the Admission Committee.

The MPH Admissions Committee conducts interviews using Skype video conferencing for applicants who are unable to travel to Indianapolis for the interview. Skype is a free software application that allows users to connect through the internet to communicate. Note that applicants will need access to a webcam and microphone for the interview.

Skype System Requirements (taken from Skype website)

- PC running Windows 2000, XP, Vista or 7. (Windows 2000 users require DirectX 9.0 for video calls).
- Internet connection (broadband is best, GPRS is not supported for voice calls, and results may vary on a satellite connection).
- Speakers and microphone built-in or separate.
- For voice and video calls we recommend a computer with at least a 1GHz processor, 256 MB RAM and of course a webcam.
- For High Quality Video calls you will need a high quality video webcam and software, a dual-core processor computer and a fast broadband connection (384 kbps).

Photo

Applicants are required to email a clear and visible 2 x 3 photo taken with the last 12 months to pbhealth@iupui.edu.

Helpful Websites

Graduate Record Examination, (GRE) - <http://www.gre.org>
 Educational Testing Service (ETS) - <http://www.ets.org>
 IUPUI Office of International Affairs - <http://international.iupui.edu>
 IUPUI Office of Financial Aid - <http://www.iupui.edu/finaid/>

Ph.D. Admissions

Application, admission, and degree-granting requirements and regulations shall be applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin.

Admission into a Department of Public Health Ph.D. Program is based on completion of a baccalaureate degree, although it is anticipated that many applicants will have completed a post baccalaureate degree in public health or other health related discipline.

Fall semester application deadline: December 15

All required application documents must be submitted by the Ph.D. program deadline, with the exception of recommendation letters, which may be submitted up to two weeks past the deadline.

Online Application Process

Online Application: To access the application for Department of Public Health Ph.D. Programs, go to the *IUPUI Graduate Office* home page <http://www.iupui.edu/gradoff/>, click on *Graduate Degree Programs and Admissions*, then *Online Application*.

If you already have an IU account, use your user name and password to log on to the application. If you do not have an IU account, create a guest account with a user name and password. When completing the online application, under "Educational Objectives" select "GRAD SCH-PUBLIC HEALTH-MED", then choose the appropriate Ph.D. Program as the major.

Personal Statement: The candidates personal statement should be approximately 750 words and must be uploaded to the online application. Please include the following components in your personal statement:

- Describe experiences that have shaped your interest in the Ph.D. Program area to which you are applying.
- Indicate why you are seeking doctoral training in the Ph.D. Program area.
- List the factors that led you to apply to the program.
- Include any interests you have in specific aspects of the Ph.D. Program area.
- Outline your professional goals, both immediate and long term.

Three Letters of Recommendation: The Department of Public Health expects that at least three letters of recommendations will be submitted with your application to a Ph.D. Program. These letters should be from professional sources that can provide an unbiased, current and critical assessment of your abilities, skills, and strengths and weaknesses related to successfully completing a doctoral program.

Examples of professional sources are academic advisors, professors, preceptors or immediate supervisors. Examples of sources that are not acceptable include coworkers, colleagues, classmates, family acquaintances and relatives.

The Department of Public Health requests that letters of recommendation be submitted electronically through the online application. The online application asks applicants to supply e-mail addresses for their referees. When the applicant submits the application, the system automatically sends recommendation forms to the referees. After completing the form, referees return them to the IUPUI Graduate Office via e-mail.

Submission of Documents

The following documents are required to be submitted directly to the Department of Public Health:

- Official transcripts from all colleges and universities attended.
- A copy of your current resume or CV.

- Scores on the GRE*, MCAT, LSAT, GMAT, DAT or other graduate entrance exam.
- TOEFL score for applicants whose native language is not English.
- Sample of scholarly writing (Required for the Health Policy and Management Ph.D. Program only)
Applicants to the Ph.D. Program in Health Policy and Management must submit an electronic copy of a course paper or published article in which the applicant is the sole author.

Applicants should request that their test scores be mailed directly to IUPUI from the testing service. The IUPUI code is 1325. If possible, all other documents should be e-mailed to Suzanne Hancock, suehanco@iupui.edu. If e-mail transmission is not possible, hard copies of the documents can be mailed to:

IU Department of Public Health

Attn: Student Services Ph.D. Programs

714 N. Senate Avenue, Suite EF250 Indianapolis, IN 46202

***NOTE:** The Graduate Record Examination (GRE) is undergoing a major revision in 2011. After July 31, the old test will no longer be available. The revised test will be offered beginning August 1. Test scores for the new test will not be available until late November. Applicants can take the GRE during the months of August and September for a 50% discount. See the [ETS GRE website](#) for further details.

The GRE is in the process of revising the scoring system. Visit the [ETS GRE website](#) for more information.

Revised GRE Scoring System

*GRE revised General Test (taken on or after August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	130 - 170 (1 point increments)
Quantitative Reasoning	130 - 170 (1 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** GRE® revised General Test Scores will be reported beginning in November 2011. View the [detailed score reporting schedule](#). If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure. Scores are valid for five years.

*GRE General Test (taken prior to August 1, 2011)**

Measure	Scores Reported
Verbal Reasoning	200 - 800 (10 point increments)
Quantitative Reasoning	200 - 800 (10 point increments)
Analytic Writing	0 - 6 (half point increments)

***NOTE:** In November, a newly designed score report will be introduced when score reporting begins for the GRE revised General Test. For individuals who took the GRE® General Test prior to August 1, 2011, the score report will include your Verbal Reasoning and Quantitative Reasoning scores on the 200-800 scale as well as estimated Verbal Reasoning and Quantitative Reasoning scores on the new 130-170

score scale. If no questions are answered for a specific measure (e.g., Verbal Reasoning), then you will receive a No Score (NS) for that measure.

Review of Application

Applications will be carefully reviewed by the respective Admission Committee after the program deadline, if the application file is complete.

On-site Interview

- **In-person interview:** Applicants will be invited to participate in an in-person interview with several members of the Admission Committee. Alternative arrangements may be provided for applicants unable to be interviewed in-person.
- **Completion of an on-site essay:** Applicants participating in the interview process may be asked to write a short essay on a specific topic assigned to them using Microsoft Word. The purpose of this step is to allow the Admissions Committee to assess the applicant's English writing skills.

Pre-requisite Coursework

The Admissions Committee will determine each applicant's acceptance or non-acceptance into the Ph.D. program by using the following selection criteria:

- **Scientific Leadership Potential:** Assessed by the applicant's resume / curriculum vita, personal statement, and personal interview.
- **Ability to Engage in Advanced Graduate Work:** Assessed by the applicant's personal interview, evaluation of letters of recommendation, overall grade point average in prior graduate work, and scores from the GRE or other graduate entrance exams.
- **Learning Goals and Objectives:** Assessed by the applicant's personal statement and personal interview.

Helpful Websites

Graduate Record Examination, (GRE) - <http://www.gre.org>
 Educational Testing Service (ETS) - <http://www.ets.org>
 IUPUI Office of International Affairs - <http://international.iupui.edu>
 IUPUI Office of Financial Aid - <http://www.iupui.edu/finaid/>

Graduate Programs

At the graduate level, students can pursue advanced study in public health through doctoral and master degrees and certificates and minors.

The 90 credit Doctor of Philosophy (Ph.D.) degrees in Epidemiology, Health Policy and Management, and Biostatistics can be completed on a part-time or full-time basis. To learn more about the three Ph.D. programs, visit www.pbhealth.iupui.edu.

The 45 credit Master of Public Health (M.P.H.) degree offers five concentrations: Epidemiology, Social and Behavioral Sciences, Health Policy and Management, Biostatistics, and Environmental Health Science. The M.P.H. program is fully accredited by the [Council on Education for Public Health](http://www.cacpe.org). To learn more about the program, visit www.pbhealth.iupui.edu.

The 51 credit Master of Health Administration (M.H.A.) degree offers advanced study in health administration. This is the only M.H.A. program in Indiana accredited by the [Commission on Accreditation of Healthcare Management Education \(CAHME\)](http://www.cahme.org). The M.H.A. program is also a member of the [Association of University Programs in Health Administration](http://www.aupha.org). To learn more about the M.H.A. program, visit the www.phhealth.iupui.edu.

The following joint degrees and coordinated curricula are offered on the IUPUI campus:

- M.D./M.P.H.
- D.D.S./M.P.H.
- M.S.W./M.P.H.
- M.H.A./M.P.H.
- M.S. in Bioethics/M.P.H.
- J.D./M.P.H.
- J.D./M.H.A.
- M.B.A./M.H.A.

Graduate certificate programs include the Graduate Certificate in Public Health (15 credits), the Graduate Certificate in Health Policy (17-18 credits), and the Graduate Certificate in Health Services Management (15 credits). To learn more about the Graduate Certificate Program, visit www.phhealth.iupui.edu.

The 12 credit minors are available to students currently enrolled in doctoral programs. To learn more about the doctoral minors available in six different areas, visit www.phhealth.iupui.edu.

Certificate Programs

Three graduate certificates are offered by the Department of Public Health at IUPUI: Certificate in Public Health, Certificate in Health Policy, and Certificate in Health Systems Management. Certificate programs are flexible and adaptable to the needs of either pre-career or in-service students. Program descriptions, admission requirements and curriculum requirements are available at the [Graduate Certificate Program](http://www.pbhealth.iupui.edu) page.

Application, admission, and certificate-granting requirements and regulations of educational programs offered by the Department of Public Health are applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin.

Certificate in Public Health

The Graduate Certificate in Public Health is a 15-credit-hour program of study. The certificate program is designed to meet the needs of public health professionals who are seeking the opportunity to continue their education while working. This program consists of evening classes and is available to US citizens and permanent residents.

In order to receive the Graduate Certificate in Public Health, students must complete 15 credit hours of the approved public health course work with a minimum cumulative GPA of 3.0 ("B" grade on a 4.0 scale). The five core courses comprise the Graduate Certificate curriculum requirements. Transfer credit or course waivers are not allowed as substitution for any courses in the certificate program.

Students who have been awarded a Graduate Certificate in Public Health have two years to apply their credits toward the MPH degree. Graduates of the certificate program who do not apply to the MPH Program within two years after completion of the certificate program are not eligible to apply their 15 credits from the certificate program toward the MPH Program on the IUPUI campus. Admission to or successful completion of a certificate program does not guarantee subsequent admission to the MPH Program.

The 15 credit Graduate Certificate in Public Health consists of coursework in the five core areas of public health.

- **P517:** Fundamentals of Epidemiology (3cr)
- **P519:** Environmental Science in Public Health (3cr)
- **P500:** Social and Behavioral Science in Public Health (3cr)
- **P504:** U.S. Health Care Systems and Health Policy (3cr)
- **P551:** Biostatistics for Public Health I(3cr)

Certificate in Health Policy

Students in this 17-18 credit hour program complete courses taught by faculty from the Indiana University Schools of Medicine, Law, Nursing, Public and Environmental Affairs, and Liberal Arts.

Certificate in Health Systems Management

This 15 credit hour program provides health care professionals with the opportunity to further their understanding of the historical, economic, financial, and strategic aspects of the health care industry.

Contact Information

714 N. Senate Avenue Suite 250 Indianapolis, IN 46202

Phone: (317) 274-3126

Fax: (317) 274-3443

For more information visit the Department of Public Health website, or send an email to pbhealth@iupui.edu.

Master of Health Administration

The graduate program in health administration is offered by Indiana University School of Medicine's Department of Public Health. Recognized for its outstanding faculty, professional integration, and strong business ethics, the Indianapolis program reflects the exciting frontiers of the contemporary health care industry.

This advanced program attracts professionals and students interested in a variety of leadership opportunities in hospitals, managed care, ambulatory care, and voluntary health agencies. Opportunities also exist in consulting firms, corporate health programs, insurance, government, and other regulatory agencies. The program is fully accredited by the Commission on Accreditation of Healthcare Management Education and is a member of the Association of University Programs in Health Administration.

Approximately one-third of the students in the program have professional backgrounds; the remaining two-thirds come directly from undergraduate programs. In the classroom, this mix creates a dynamic environment of fresh perspectives and practical experience. The versatile faculty teach a

rigorous interdisciplinary curriculum interwoven with current research and events. The M.H.A. program requires 51 graduate semester credit hours.

A summer internship between the first and second year of study is an excellent opportunity to learn from a health industry leader. The internship offers students valuable experience in the health care field and is an excellent opportunity to blend academic preparation with hands-on experience. Positions are available throughout the United States.

As an option, students may choose an administrative residency, a 10-12 month paid residency that can assist in the transition from classroom to workplace through intensive exposure to a selected management career. It blends academic preparation with administrative practice. Students with little health administration experience may find the residencies beneficial. Residents are selected through competitive application processes.

A mentorship program utilizing local M.H.A. alumni and friends of the school gives students the opportunity to meet a variety of practicing health care professionals. Mentors are available in all segments of the health care field and range from recent graduates to corporate officers and senior public officials.

Our students are successfully competing for national administrative fellowships after graduation. Fellowships have been awarded to M.H.A. program graduates from institutions that include Good Samaritan Health System in Nebraska; Winston Fellowship and Washington Hospital Group in Washington, D.C.; Baylor Medical Center in Houston; Cleveland Clinics in Cleveland; and the American College of Healthcare Executives in Chicago. Most fellowships provide a two-year paid administrative experience.

Admissions

In addition to the general requirements for admission to graduate study in Indiana University School of Medicine's Department of Public Health, the following requirements generally must be met for admission to the Graduate Program in Health Administration:

1. Applicants must possess an undergraduate degree from an accredited institution and have a minimum overall undergraduate grade point average (GPA) of 3.0 (B) on a 4.0 scale. Applicants with a minimum GPA of 3.0 during the last half of their undergraduate education are shown preference, however a 3.0 GPA does not guarantee admission.
2. Applicants must complete at least 3 credit hours each of undergraduate courses in introductory accounting, microeconomics, and statistics at an accredited institution with a minimum grade of C in each course. Students who have not completed these courses but who meet all other requirements may be accepted with deficiencies. These students are not usually permitted to enroll in the classes that require these courses as prerequisites until the deficiencies are removed.
3. Applicants must take the Graduate Record Examination (GRE) and achieve a composite score of at least 1,000 total in the quantitative and verbal sections or a GMAT total score of at least a 500. Note that achieving these scores does not guarantee admission. An applicant

with a GRE score lower than 500 in any section may be required to participate in special academic counseling and evaluation prior to any admission decision. Additional course work may be required, and admission as a provisional student may be stipulated. Applicants who have been awarded an advanced degree may petition the admissions committee for waiver of the GRE requirement.

Mid-Career Credit Option

The Graduate Admissions Committee of the Indiana University School of Medicine's Department of Public Health may grant up to a maximum of 12 credit hours toward the MHA degree for students who have had **significant professional level work experience** in management and policy development. "Professional" level work is that requiring extensive education or specialized training (e.g., at least an undergraduate degree) and gives substantial control over the manner in which it is done to the person performing it.

Credit will be granted for work experience gained before the student completes 36 credit hours of course work in the MHA program.

The following guidelines will be used by the Admissions Committee to award these credits:

1. To receive **THREE** (3) credit hours, a student must have had one to three year's professional experience in policy development or management with a health care organization in any of the following areas:
 1. Directing programs
 2. Preparing budgets
 3. Making decisions on organizational or staff development
 4. Analyzing, developing and evaluating policies
 5. Conducting public or legislative relations programs
 6. Program planning
2. To receive **SIX** (6) credit hours, a student must have had three to five years of managerial experience in a healthcare organization that includes significant responsibility for at least two of the following:
 1. Directing programs
 2. Preparing budgets
 3. Making decisions on organizational or staff development
 4. Analyzing, developing and evaluating policies
 5. e. Conducting public or legislative relations programs
 6. Program planning

Credit hours will be given in the MHA program only for managerial experience.

3. To receive **NINE** (9) credit hours, a student must have had at least five years of in a health care organization for at least four of the following:
 1. Directing programs
 2. Preparing budgets
 3. Making decisions on organizational or staff development
 4. Analyzing, developing and evaluating policies
 5. Conducting public or legislative relations programs

6. Program planning

This experience must include supervising a significant number of staff, including other supervisors, managers or contract employees. **Credit hours will be given in the MHA program only for managerial experience.**

4. **TWELVE** (12) credit hours may be awarded by the Admissions Committee *in exceptional circumstances* to students who have had at least ten years of for multiple areas of a health care organization.

Credit hours will be given in the MHA program only for managerial experience.

Application Process and Policies Students are eligible to apply for Mid-Career credit at the time of application for graduate study or until they have completed 36 hours of course work in the MHA program. Professional experience acquired after the completion of 36 hours of course work in the MHA program will not be considered in awarding Mid-Career credit. Students may be awarded more Mid-Career credit than they can use to fulfill their degree requirements.

Tuition Charge for MCO Credit For every three credit hours of Mid-Career credit awarded, students will be charged for **one** (1) credit hour at the tuition-rate applicable to them.

Degree Requirements (51 credit hours)

A minimum of 51 credit hours, divided between required and elective courses, is required in the Master of Health Administration degree program. The M.H.A. curriculum begins with a foundation of theory and skill-building courses and makes a transition to course work that requires practical application of those skills in a variety of health care settings.

Part-time students must complete at least 6 credit hours each semester to remain in good standing. All students must complete the program's academic requirements within five calendar years of matriculation.

Required courses (45 credit hours):

- PBHL-H 501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)
- PBHL-H 502 Developing Strategic Capability in Health Care (3 cr.)
- PBHL-H 507 Management of Individual and Group Behavior (3 cr.)
- PBHL-H 508 Managing Health Care Accounting Information for Decision Making (3 cr.)
- PBHL-H 509 Financial Management Principles of Health Care (3 cr.)
- PBHL-H 514 Health Economics (3 cr.)
- PBHL-H 516 Health Services Delivery and the Law (3 cr.)
- PBHL-H 518 Statistical Methods for Health Services (3 cr.)
- PBHL-H 521 Management Science for Health Services Administration (3 cr.)
- PBHL-H 612 Marketing Health Services Delivery (3 cr.)
- PBHL-H 623 Health Care Applications of Strategic Management (3 cr.)

- PBHL-H626 Health Services Human Resources Management (3 cr.)
- PBHL-H 628 Health Care Information Systems (3 cr.)

One of the following courses:

- PBHL-H 700 Residency (3-6 cr.) **OR**
- PBHL-H 702 Internship in Health Services Management (3 cr.) **OR**
- PBHL-H 735 Research in Health Administration (3-6 cr.)

Electives (6-9 credit hours):

Management Electives:

- PBHL-H 510 Health Services Financial Management (P: H 509) (3 cr.)
- PBHL-H 606 Health Services Quality Improvement and Risk Management (3 cr.)
- SPEA-V 566 Executive Leadership (3 cr.)
- SPEA-V 639 Managing Government Operations (3 cr.)
- SPEA-E 533 Environmental Management Systems: ISO 14001 Based (3 cr.)
- PBHL-H 640 Topics in Health Services Administration (with advisor's approval) (3 cr.)
- PBHL-H 630 Readings in Health Services Administration (3 cr.)
- BUS-X 572 Value Chain in Health Care (3 cr.) (with approval of Kelley School of Business)
- INFO-I 502 Informatics Management (3 cr.) (with approval of School of Informatics)
- INFO-I 530 Seminar in Health Information Applications (3 cr.) (with approval of School of Informatics)
- JOUR-J 528 Public Relations and Research (3 cr.) (P: J 321 or instructor's approval)

Policy Electives:

- PBHL-H 515 Seminar in Health Policy: Special Topics (3 cr.) **OR** PBHL-P 611 Policy Design Implementation and Management (3 cr.)
- PBHL-H 517 Managerial Epidemiology (3 cr.)
- PBHL-H 615 Health Care Outcomes and Decision Making (3 cr.)
- SPEA-V 512 Public Policy Process (3 cr.)
- SPEA-V 541 Benefit-Cost Analysis (3 cr.)
- SPEA-V 562 Public Program Evaluation (3 cr.)
- SPEA-P 525 Geographical Information Systems for Planning (3 cr.)
- SPEA-P 527 Planning Applications of Geographical Information Systems (P: P525) (2 cr.)
- SPEA-H 640 Topics in Health Services Administration (3 cr.)
- SPEA-H 630 Readings in Health Services Administration (3 cr.)
- PHIL-P 547 Foundations of Bioethics (3 cr.)
- SOC-R 515 Sociology of Health and Illness (3 cr.)

Nonprofit electives:

- SPEA-V 521 The Nonprofit and Voluntary Sector (3 cr.)
- SPEA-V 525 Management in the Nonprofit Sector (3 cr.)

- SPEA-V 557 Proposal Development and Grant Administration (3 cr.)
- SPEA-V 558 Fund Development for Nonprofits (3 cr.)
- PBHL-H 640 Topics in Health Services Administration (3 cr.)
- PBHL-H 630 Readings in Health Services Administration (3 cr.)
- ECON-E 514 The Nonprofit Economy and Public Policy (3 cr.)
- BUS-A 508 Accounting for Nonprofit Organizations (3 cr.) (with approval of Kelley School of Business)

Note: Other graduate-level electives may be approved by a faculty advisor.

Course Waivers, Substitutions, and Challenge Examinations

Students may petition the program director to waive or make substitutions for required courses based on completion of satisfactory equivalent course work or by examination (if available). The following guidelines govern the consideration of these types of petitions.

Waivers of Required Courses The requirement for a particular course may be waived if the student furnishes evidence of equivalent graduate course work completed within a reasonable period of time from an accredited institution. It should be noted that credit is not given with a waiver-only an exemption from a particular course; another course is always substituted.

Substitutions As a general rule, the substitution of a course for one that is required in the M.H.A. curriculum is prohibited. On rare occasions, petitions for substitutions may be considered, and students who believe they would benefit from such a procedure should discuss the matter with their advisors.

Challenge Examination Students who believe they possess mastery of the subject matter stipulated in a given required course may request a challenge examination. If, in the opinion of the faculty, the student has demonstrated the requisite knowledge, academic credit for the course is authorized. The university fee structure for the cost of such an examination applies.

Master of Health Administration–Doctor of Jurisprudence (M.H.A.-J.D.)

The Indiana University School of Medicine's Department of Public Health and the School of Law-Indianapolis have established a four-year, full-time program for the combined study of law and health administration. This course of study addresses the need for professionals who understand the legal and administrative frameworks necessary to function successfully as a health lawyer or a health services administrator.

The Master of Health Administration (M.H.A.) and the Doctor of Jurisprudence (J.D.) are awarded when the student meets the degree requirements of both schools. All courses are offered on the Indianapolis campus. Successful completion of this rigorous 127-credit-hour program provides the graduate sufficient depth and breadth in each discipline to be able to function effectively in the swiftly changing health field.

The delivery of health care and health services is the second largest industry in the United States, accounting for almost 14 percent of the gross national product. The importance of health care to our citizens has long been obvious.

What has become more apparent recently, however, is the growing impact of case law, statutes, and regulations on access to and availability of care; on the delivery of health care services; and, increasingly, on decisions relating to the appropriateness of individual treatment. For this reason, the Schools of Law and Indiana University School of Medicine's Department of Public Health have sought jointly to develop a strong academic curriculum to address the educational needs of health lawyers and health service administration executives as they seek to serve the public's needs.

Application and Admission

Applicants must apply for admission to each school and must meet the admission criteria published in each school's bulletin. Normally, applicants should apply to both the School of Law-Indianapolis and the Indiana University School of Medicine's Department of Public Health at the same time. However, a person enrolled in the School of Law may apply for admission to the Graduate Program in Health Administration up to the end of the second year of law study (approximately 57 credit hours). A student formally enrolled in the study of health administration may seek admission to the School of Law-Indianapolis up to the end of the first year of full-time study leading to the award of the Master of Health Administration (approximately 30 hours of graduate credit).

Academic Standing Grade point averages in the School of Law-Indianapolis and the Indiana University School of Medicine's Department of Public Health are computed separately. To continue in the joint program, the student must meet the academic standards in each school. A student failing in one school but meeting academic standards in the other may complete course work for the degree in the school in which the student is able to meet the academic standards. Such completion must be according to the same conditions (credit hours, internship, etc.) required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

Residency The student customarily completes the first 34 credit hours in the School of Law-Indianapolis. Thereafter, the student divides the remaining course work between the two schools, taking health administration courses and law courses concurrently. Thus, the student has a continuing educational experience in both schools.

Program Requirements (127 credit hours)

M.H.A. Requirements (45 credit hours)

Students must complete 43.5 credit hours distributed among the M.H.A. required core, electives, and a joint research paper.

Required Courses (34.5 credit hours):

- PBHL-H 501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)
- PBHL-H 502 Developing Strategic Capability (3 cr.)

- PBHL-H 507 Management of Individual and Group Behavior (3 cr.)
- PBHL-H 508 Managing Health Care Accounting Information for Decision Making (3 cr.)
- PBHL-H 509 Financial Management Principles of Health Care (3 cr.)
- PBHL-H 514 Health Economics (3 cr.)
- PBHL-H 518 Statistical Methods for Health Services (3 cr.)
- PBHL-H 521 Management Science for Health Services Administration (3 cr.)
- PBHL-H 612 Marketing for Health Services Delivery (3 cr.)
- PBHL-H 623 Health Care Applications of Strategic Management (3 cr.)
- PBHL-H 626 Health Services Human Resources Management (3 cr.)
- PBHL-H 628 Health Care Information Systems (3 cr.)

Elective Courses (6 credit hours):

Six credit hours of elective courses, chosen from the following:

- PBHL-H 510 Health Services Financial Management (3 cr.)
- PBHL-H 515 Seminar in Health Policy: Special Topics (3 cr.)
- PBHL-H 517 Managerial Epidemiology (3 cr.)
- PBHL-H 615 Health Care Outcomes and Decision Making (3 cr.)
- PBHL-H 630 Readings in Health Services Administration (1-3 cr.)

Joint Research Paper (6 credit hours):

PBHL-H 735 Research in Health Administration is to be completed in the last year of the combined program and jointly supervised by advisors from both schools.

J.D. Requirements (82 credit hours)

Students are required to complete 82 credit hours of law courses and to satisfy all requirements for the Doctor of Jurisprudence degree.

Master of Health Administration–Master of Business Administration (M.H.A.-M.B.A.)

The combined M.H.A.-M.B.A. program enables the student to take a sequence of courses leading to the attainment of both degrees. Successful completion of this 78-credit-hour program provides the graduate student with sufficient depth and breadth in each discipline to function effectively in a health care delivery system that is driven by business principles.

Admissions To participate in the joint program, students must apply to and be accepted into both the Indiana University School of Medicine's Department of Public Health, Master of Health Administration program and the Indianapolis Kelley School of Business Master of Business Administration program.

Academic Standing Grade point averages for the two schools are computed separately. To continue in the joint

program, the student must meet the academic standards in each school. Students failing in one school but meeting academic standards in the other school may complete work for the degree in the school in which they are able to meet the standards. Such completion must be upon the same conditions as required of regular (noncombination) degree candidates. Students are eligible for honors in each school based on the criteria of each school.

Program Advisors Once students have been accepted into this joint degree program, they should meet with academic advisors to plan course sequencing. All M.B.A. core courses must be taken as intact modules. Full-time students typically take two M.H.A. and two M.B.A. courses each semester. Part-time students take either two M.H.A. or two M.B.A. courses each semester. Since M.B.A. courses must be taken as a cohort, part-time students will need to sequence all the M.B.A. courses in a block.

Program Requirements (78 credit hours)

The following degree requirements are required of all students admitted to the program.

M.H.A. Requirements (39 credit hours)

Students are required to complete 34.5 credit hours of SPEA courses and to satisfy all requirements for the joint degree.

- PBHL-H 501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)
- SPEA-H 502 Developing Strategic Capability in Healthcare (3 cr.)
- PBHL-H 507 Management of Individual and Group Behavior (3 cr.)
- PBHL-H 508 Managing Health Care Accounting Information for Decision Making (3 cr.)
- PBHL-H 509 Financial Management Principles in Healthcare (3 cr.) (P: UG accounting)
- PBHL-H 510 Health Services Financial Management (3 cr.)
- PBHL-H 514 Health Economics (3 cr.)
- PBHL-H 516 Health Services Delivery and the Law (3 cr.)
- PBHL-H 518 Statistical Methods for Health Services (3 cr.)
- PBHL-H 612 Marketing Health Services Delivery (3 cr.)
- PBHL-H 623 Health Care Applications of Strategic Management (3 cr.)
- PBHL-H 627 Seminar in Advanced Health Finance (3 cr.)
- PBHL-H 702 Internship in Health Services Management (3 cr.) **OR**
- PBHL-H 735 Research in Health Administration (3-6 cr.)

M.B.A. Requirements (39 credit hours)

Students are required to complete 39 credit hours of business administration courses and to satisfy all requirements for the joint degree. For specific guidelines, see the Indianapolis Kelley School of Business Graduate Bulletin.

Degree Programs

Ph.D. Programs

- [Ph.D. in Epidemiology](#)
- [Ph.D. in Health Policy and Management](#)

Master's Programs

- Master of Health Administration (M.H.A.)
- [Master of Public Health \(M.P.H.\)](#)

Joint Degree Programs

- Master of Health Administration-Doctor of Jurisprudence (M.H.A.- J.D.)
- Master of Health Administration-Master of Business Administration (M.H.A.- M.B.A.)

Graduate Certificates

- Health Policy
- Health Systems Management
- Public Health

Master of Public Health

The Indiana University MPH Program is a unique program which can be completed on a part-time basis in three years, or on a full-time basis in two years. Most of the required MPH courses are offered in the evening to allow working professionals the opportunity to continue their education. Through case studies, group and individual projects, and internships, students will explore public health problems and issues, learn how to think critically and work in teams. Courses are taught by scholars and practitioners drawn from many disciplines and perspectives.

Application, admission, and degree-granting requirements and regulations of educational programs offered by the Department of Public Health are applied equitably to all individuals, applicants and students regardless of age, gender, race, disability, sexual orientation, religion or national origin.

The MPH Program at IU School of Medicine is fully accredited by the [Council on Education for Public Health](#).

Concentrations

Epidemiology

Concentration Advisors:
[Gregory Steele](#), Dr.PH., MPH
[Marie Swanson](#), PhD., MPH
 , DrPH
 , SciD
 , MD, PhD

This concentration will prepare students to integrate the social, biological, environmental and analytic approaches to understanding determinants of health in populations. The principles and methods of epidemiology constitute a foundation essential for policy development related to surveillance activities and prevention strategies. Students will learn how to design and conduct studies, analyze data, and present findings in a variety of formats and for diverse audiences.

For more information about our Epidemiology program, [click here](#).

Environmental Health

Concentration Advisors:

, HSD
, PhD

Students enrolled in this concentration learn to anticipate, recognize and assess environmental hazards that affect human health. Students study the impact of biological, physical and chemical factors on the health of communities. Students will acquire the skills necessary to identify susceptibility and intervention factors that lead to disease and/or its prevention.

For more information about our Environmental Health program, [click here](#).

Health Policy and Management

Concentration Advisor: [Cynthia Stone](#), Dr PH., MPH, RN
[Nan Rong](#), PhD, MPH
[Eric Wright](#), PhD

Students in this concentration will acquire skills in policy process, development and analysis. They will explore in depth current national and state public health issues and make policy recommendations to address those issues. In addition, they will develop strategic capability for managing health services organizations in a policy context.

For more information about our Health Policy and Management program, [click here](#).

Social and Behavioral Sciences

Concentration Advisors:
[David Everetts](#), MD, MPH
[Silvia M. Bigatti](#), PhD
[Lisa Hess](#), PhD

This concentration will prepare students to use behavioral science and educational content and research methods in the development, implementation, and evaluation of interventions designed to affect health behaviors in populations. Health assessment and program planning and evaluation are essential in understanding the psychosocial factors associated with health status. Students will learn how to use research, communications, and management tools to solve health problems in various professional settings including clinical, school, work site and community programs.

For more information about our Social and Behavioral Sciences program, [click here](#).

Biostatistics (beginning Fall 2011)

Biostatistics is the development and application of statistical reasoning and methods in addressing, analyzing and solving problems in public health; health care; and biomedical, clinical and population-based research.

Student Learning Outcomes

- Epidemiology (Ph.D.)
- Health Policy and Management (Ph.D.)
- Master of Health Administration (M.H.A.)
- Master of Public Health (M.P.H.)
- Health Policy Certificate
- Health Systems Management Certificate
- Public Health Certificate

Doctor of Philosophy in Epidemiology (Ph.D.)

Upon completion of this Ph.D. program, graduates will have acquired the competency to:

- 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 surveillance systems.
- Differentiate special populations by race, ethnicity; culture; societal, educational, and professional backgrounds; age; sex; religion; disability; and sexual orientation.
- Critically evaluate results of epidemiologic studies, including analyses, interpretation and conclusions.
- Use current knowledge of causes of disease to guide epidemiologic practice.
- Prepare written and oral reports and presentations to effectively communicate necessary information to professional audiences, policy makers, and the general public.
- Develop community partnerships to support epidemiologic investigations.
- Prepare 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.

Doctor of Philosophy in Health Policy and Management (Ph.D.)

Upon completion of this Ph.D. program, graduates will have acquired the competency to:

- Demonstrate in-depth knowledge of the history, structure, and operation of health care systems domestically and internationally.
- Understand and apply bioethical principles and theories and utilize them in research, policy and practice.
- Design and conduct health policy and services research studies.
- Access, manage and utilize administrative and other secondary data sources in research studies.
- Prepare grant applications and manage research projects.
- Analyze and evaluate policies and programs.
- Utilize and report the results of advanced quantitative and qualitative data analysis.
- Interpret and report the findings of original research for scholarly audiences.
- Translate and apply findings from original and existing research in policy and practice.
- Educate and train students and professionals about health policy and management.

Master of Health Administration (M.H.A.)

Upon completion of this Master's program, graduates will have acquired competencies in several domains.

- **Background information on the health care system**
- Understand an organization's place within the health care system and the larger community.
- Understand how decisions are made within the private, non-profit and government sectors; understand connections across these sectors.
- **Leadership/professionalism**
- Develop verbal and written communication and negotiation skills.
- Understand the principles of effective human resource management.
- Develop skills in relationship/team building.
- Develop an awareness of ethical standards for the profession.
- **Human resource management**
- Understand the principles of effective recruitment and personnel management.
- **Health Law/ethics**
- Have a broad understanding of legal context for health administration.
- Have a broad understanding of the values and ethics that underpin health care administration.
- Be sensitive to diversity in the population and its implications for health care delivery.
- **Quantitative Skills**
- Have a basic working knowledge of statistical analysis.
- Be able to measure and assess health status and health risks.
- Evaluate health care process improvements and performance.
- **Financial Skills**
- Have a command of the basic skills of accounting and financial management (e.g., prepare and manage budgets).
- Understand principles of sound investment decisions.
- **Information Skills**
- Understand the principles of information management, including security.
- Know sources for administrative and clinical information as appropriate for health care management and lifelong learning.
- Decision Making
- Develop analytic skills for effective decision making, including economics and management science.
- **Implementing Change**
- Understand the process of organizational development.
- Be able to identify the most appropriate business strategies, develop business plans around these strategies, and follow through with effective project management.
- Understand the principles of effective marketing.
- **Personal Development**
- talent development
- initiative
- innovative thinking

Master of Public Health (M.P.H.)

Upon completion of this Master's program, graduates will have acquired the competency to:

- Use biostatistical methods to analyze and report public health data.
- Specify approaches to assess, prevent and control environmental and occupational hazards to human health and safety.
- Use epidemiologic methods to collect, study, analyze and report the patterns of disease in human populations for diverse audiences.
- Identify and analyze the components and issues of leadership, including financing and delivery of public health services and systems.
- Apply policy process, development and analysis methods to address current national, state and local public health issues.
- Identify social and behavioral science factors, theories and models and develop, implement and evaluate interventions designed to positively affect health behaviors in populations.
- Collect and disseminate public health data through the use of technology and media.
- Explain how human biology influences health and public health practice.
- Exhibit high standards of personal and organizational integrity, compassion, honesty and respect for all people.
- Use systems methods to analyze the effects of political, social and economic influences on public health systems at the individual, community, state, national and international levels.
- Demonstrate the impact of diversity and culture on public health across discipline areas.
- Demonstrate an understanding of the basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of public health data.

Epidemiology Concentration Competencies

- Understand and apply descriptive epidemiology to assess health status and the burden of disease in populations.
- Understand, apply, and interpret epidemiologic research methods and findings to the practice of public health.
- Demonstrate the ability to identify and use existing sources of epidemiologic data at the local, state, national, and international level.
- Understand the key components of public health surveillance and public health screening programs.
- Develop written and oral presentations based on epidemiologic analyses for both public health professionals and lay audiences.
- Demonstrate a basic level of epidemiologic data management and analysis using software such as SAS.

Environmental Health Science Concentration Competencies

- Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues.
- Specify current environmental risk assessment methods.
- Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety.
- Explain the general mechanisms of toxicology and eliciting a toxic response to various environmental exposures.
- Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.

Health Policy and Management Concentration Competencies

- Discuss the policy process for improving the health status of populations.
- Apply principles of strategic planning and organizational development to public health agencies.
- Demonstrate communication and leadership skills required for building community and organizational capacity.
- Apply the principles of budgeting, management and performance evaluation in organizational and community initiatives.

Social and Behavioral Science Concentration Competencies

- In collaboration with others, prioritize individual, organizational, community, and societal concerns and resources for public health programs, policies and interventions.
- Describe steps and procedures for the planning, implementation and evaluation of public health programs, policies and interventions.
- Apply evidence-based approaches in the development, implementation, and evaluation of social and behavioral science interventions in diverse populations.
- Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice.
- Identify the causes and conditions linked to social and behavioral factors that affect health of individuals and populations.
- Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies.

Biostatistics Concentration Competencies

- Describe basic concepts of probability, random variation and commonly used statistical probability distributions.
- Apply descriptive techniques commonly used to summarize public health data.
- Apply common statistical methods for inference.
- Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.
- Interpret results of statistical analyses found in public health studies.

- Develop written and oral presentations based on statistical analyses for both public health professionals and educated lay audiences.

Public Health Certificate

- Use biostatistical methods to analyze and report public health data.
- Specify approaches to assess, prevent and control environmental and occupational hazards to human health and safety.
- Use epidemiologic methods to collect, study, analyze and report the patterns of disease in human populations for diverse audiences.
- Apply policy process, development and analysis methods to address current national, state and local public health issues.
- Identify social and behavioral science factors, theories and models and develop, implement and evaluate interventions designed to positively affect health behaviors in populations.
- Exhibit high standards of personal and organizational integrity, compassion, honesty and respect for all people.
- Identify the impact of diversity and culture on public health across discipline areas.
- Identify the basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of public health data.

Health Policy Certificate

Background Information on the Health Care System

- Understand an organization's place within the health care system and the larger community.
- Understand how decisions are made within the private, non-profit and government sectors.
- Understand connections across these sectors.

Health Law/Ethics

- Have a broad understanding of legal context for health administration.
- Have a broad understanding of the values and ethics that underpin health care administration.
- Be sensitive to diversity in the population and its implications for health care delivery.

Quantitative Skills

- Have a basic working knowledge of statistical analysis.
- Be able to measure and assess health status and health risks.
- Evaluate health care process improvements and performance.

Decision Making

- Develop analytic skills for effective decision making, including economics and management science.

Personal Development

- Talent development
- Initiative
- Innovative thinking

Health Systems Management Certificate

Background Information on the Health Care System

- Understand an organization's place within the health care system and the larger community.
- Understand how decisions are made within the private, non-profit and government sectors.
- Understand connections across these sectors.

Leadership/Professionalism

- Develop verbal and written communication and negotiation skills.
- Understand the principles of effective human resource management.
- Develop skills in relationship/team building.
- Develop an awareness of ethical standards for the profession.

Human Resource Management

- Understand the principles of effective recruitment and personnel management.

Health Law/Ethics

- Have a broad understanding of the values and ethics that underpin health care administration.
- Be sensitive to diversity in the population and its implications for health care delivery.

Financial Skills

- Have a command of the basic skills of accounting and financial management (e.g., prepare and manage budgets).
- Understand principles of sound investment decisions.

Decision Making

- Develop analytic skills for effective decision making, including economics and management science.

Policies and Procedures

The Department of Public Health policies for undergraduate and graduate programs are applicable to all Public Health degrees and students. Questions about policies should be directed to the appropriate program director. Contact information is available at the Department of Public Health website at <http://www.pbhealth.iupui.edu>.

Graduate Policies

The academic regulations that apply to graduate programs and students in the Department of Public Health are available at the Department's Web site, available at <http://www.pbhealth.iupui.edu/>.

Undergraduate Policies

The following academic policies of the Department of Public Health are applicable to all Department of Public Health undergraduate programs.

Policies for Good Academic Standing, Dismissal and Reinstatement

Good Academic Standing

Matriculation Prior to January 1, 2012. Students are in good academic standing when their semester and their cumulative grade point averages are 2.0 or above, and their grade point average in all courses included in the Department of Public Health major requirements is at least 2.3. Students must be in good academic standing to graduate.

Matriculation Beginning January 1, 2012. Students are in good academic standing when their semester and their cumulative grade point averages are 2.5 or above. Students must be in good academic standing to graduate.

Probation

Matriculation Prior to January 1, 2012. A student will be placed on academic probation if his/her cumulative or semester grade point average is below 2.0 **or** if his/her Department of Public Health major GPA falls below 2.3. In order for the major GPA to be considered, students must have completed 12 or more credit hours in the major. If a student is not making satisfactory progress toward a degree at the conclusion of the probation semester, the student may be dismissed from the Department.

Matriculation Beginning January 1, 2012. A student will be placed on academic probation if his/her cumulative or semester grade point average is below 2.5. If a student is not making satisfactory progress toward a degree at the conclusion of the probation semester, the student may be dismissed from the Department.

Critical Probation

Matriculation Prior to January 1, 2012. Under special circumstances, students may be placed on critical probation. If the student is given the opportunity to enroll under critical probation, the Undergraduate Academic Progress Committee will establish strict conditions that must be met before the student will be allowed to register for future classes. Students who fail to return to good standing at the conclusion of critical probation may be dismissed from the academic program.

Matriculation Beginning January 1, 2012. Under special circumstances, students may be placed on critical probation. If the student is given the opportunity to enroll under critical probation, the Undergraduate Academic Progress Committee will establish strict conditions that must be met before the student will be allowed to register for future classes. Students who fail to return to good standing at the conclusion of critical probation may be dismissed from the academic program.

Dismissal

Matriculation Prior to January 1, 2012. If in the opinion of the Undergraduate Academic Progress Committee, a student is not making satisfactory progress toward his/her degree, he/she may be dismissed. Dismissed students will have their upcoming semester courses cancelled.

Matriculation Beginning January 1, 2012. If in the opinion of the Undergraduate Academic Progress Committee, a student is not making satisfactory progress toward his/her degree, he/she may be dismissed. Dismissed students will have their upcoming semester courses cancelled.

Reinstatement Students who have been formally dismissed may appeal their dismissal. Students who have been formally dismissed must apply to the Undergraduate Academic

Progress Committee for reinstatement. Students who have been dismissed are not eligible for reinstatement until at least one full regular semester (spring or fall) has passed since the dismissal.

Students petitioning for reinstatement must demonstrate by their petitions that they have prepared themselves to succeed in their studies at IUPUI.

Reinstatement is not automatic and depends on a determination that the student will succeed. This determination is based on a careful review of the student's grades leading up to the dismissal, the students' reinstatement petition, and any other relevant information. Before being reinstated, students may be required to participate in testing, advising, workshop sessions, or other activities designed to enable the student to succeed academically.

Policies for Dean's List, Grading, Grade Replacement, Grade Appeal, Incomplete, Withdrawal, Forgiveness

Dean's List Students who are enrolled in 6 or more hours of coursework are named to the Dean's List if they have earned a GPA of 3.5 or higher for the fall or spring terms. Courses must be taken for a letter grade; pass/fail credit hours are not counted in the Dean's List determination. The Dean's List is not computed for the summer sessions. Students with a grade of incomplete cannot be named to the Dean's List until the incomplete is removed.

Grading Policies The Department of Public Health follows the official grading system of Indiana University, described in the introductory section of the bulletin.

Grade Replacement The Department of Public Health students who have retaken a course (must be same department and course number) may request to have only the last grade computed in their grade point average. If a student earns the same or a higher grade after repeating a course, only the second grade will be counted in the GPA. Students may replace five grades for a total of 15 credit hours. Replacement does not occur automatically. Students must notify the Department of Public Health recorder that the course has been taken a second time and that they wish to use grade replacement for the course.

Grade Appeal A student may appeal a course grade at the completion of a course to resolve a grade discrepancy or a grade dispute. The appeal must be made within 90 days of the date when the grade was issued. In those rare instances when a student is unable to contact the professor who issued the grade, the student must give a notice of intent to appeal the grade within 90 days of the date when the grade was issued. The appeal should be made to the Director of Undergraduate Education.

Incomplete A grade of incomplete must be removed within the time specified by the instructor of the course; if not, the grade automatically changes to an F one calendar year after the Incomplete was given.

Students must formally withdraw from courses in the timeframe allowed by the Registrar's office. This information can be found at the web site www.registrar.iupui.edu.

Forgiveness Policy This policy applies to former IU students pursuing a first undergraduate degree who have been away

from the IU system and have not attended any other college or university, including any campus of IU, for the last five years. This policy, which first became available to students returning to IUPUI in the fall of 1996, states that students may apply for forgiveness upon application for admission to a degree-granting unit. If the student has not yet been admitted to a degree-granting unit, the student should submit a notification of intent to petition for academic forgiveness as part of the academic advising process. If the petition is approved, the student starts with a fresh cumulative grade point index, after which all the rules of academic probation and dismissal (for the Department of Public Health) will apply. The Department of Public Health will evaluate the student's transcript, and all courses taken previously will remain on the permanent record. Only credit hours for courses with grades C or above, P, or S may be counted toward degree completion. After approval, the student must complete a minimum of 32 credit hours on the IUPUI campus in order to meet the graduation residency requirement.

Policies for Student Rights and Responsibilities, Confidentiality, and Academic Integrity

Student Rights and Responsibilities The Department of Public Health fully supports the rights and responsibilities of students as defined in the IUPUI *Code of Student Rights, Responsibilities, and Conduct*. The *Student Code* spells out the expectations for faculty and students, and it provides the framework for the Department of Public Health's judicial process, which can be accessed at the Department of Public Health website.

A student is entitled to rights in the pursuit of his or her education; freedom from discrimination and harassment; and freedom of association, expression, advocacy, and publication. A student also has the right to contribute to University governance, to receive accommodations for disabilities, and to access records and facilities. In accordance with federal law, student records are confidential and are available to other persons only under specific conditions as outlined in university regulations.

A student is responsible for upholding and following all applicable codes of conduct, including the IUPUI Student Code and course policies on classroom etiquette and disorderly conduct, and for obeying all applicable policies and procedures and all local, state, and federal laws. A student is responsible for facilitating the learning process, attending class regularly, completing class assignments and coming to class prepared. In addition, a student is responsible for planning his or her own academic program, planning class schedules, and for meeting the requirements for his or her degree or certificate programs. Faculty and academic advisors are available to assist students in meeting degree requirements. A student is responsible for maintaining and regularly monitoring his or her university accounts including e-mail and bursar accounts. A student is responsible for using university property and facilities in the pursuit of his or her education, while being mindful of the rights of others to do the same. A student is responsible for upholding and maintaining academic and professional honesty and integrity.

In accordance with Indiana University regulations, student records are confidential and are available to other persons

only under specific conditions as outlined in university regulations.

Academic Integrity Academic integrity is a basic principle of intellectual life that holds students responsible for taking credit only for ideas and efforts that are their own. Academic dishonesty violates that principle and undermines the bonds of trust and cooperation among members of the university community, and it is not tolerated. Academic misconduct includes cheating, fabrication, plagiarism, interference, violation of course rules, and facilitating academic dishonesty. Students are responsible for knowing what behaviors and activities constitute these different forms of academic misconduct. Penalties and procedures that are applicable when academic misconduct or dishonesty occurs are described in the IUPUI *Code of Student Rights, Responsibilities, and Conduct*. More information about the Department of Public Health policy and procedures is available by linking to [Academic Integrity](#).

Sex Offenders Screening Policy for

Students/Applicants Students and applicants should be aware that criminal convictions may result in ineligibility for participation in certain courses/activities within the Department of Public Health. Questions regarding the Department's policy on such matters should be addressed to the appropriate program director.

Policies Concerning Degree Requirements

Students may choose to complete either the specific degree, certificate, or minor requirements published in the appropriate bulletin at the time of entry into the university or those in the bulletin current at the time of graduation.

Application for Degree All students must fill out an application for degree at the Department of Public Health records office. This application should be completed by September 10 for a December graduation, or January 10 for a May or August graduation.

Degree Completion Students are expected to complete the requirements for their undergraduate degree within 10 years of admission to the Department of Public Health. Students are allowed to continue beyond this time period only at the discretion of the Director of Undergraduate Education. If a student has not taken classes for three years or more, he/she must satisfy program requirements of the Department of Public Health in effect at the time of reactivation. Requests for deviation from requirements listed in the bulletin must be approved in writing by the Director of Undergraduate Education, whose decision is final.

Course Substitution and Course Waiver Requests for course substitutions and course waivers must be made to the faculty advisor.

Degrees Awarded with Distinction The Department of Public Health recognizes outstanding performance by awarding bachelor's and associate degrees with three levels of distinction to students who rank in the upper 10 percent of their Department of Public Health graduating class by major and have completed a minimum of 60 hours at Indiana University for a B.S. The levels of distinction are as follows: highest distinction, 3.90 and above; high distinction, 3.70 through 3.89; distinction, 3.50 through 3.69.

Double-Counting Generally, courses taken to meet a specific degree requirement cannot be double-counted (i.e.,

used to satisfy any other degree requirement). Students earning a Department of Public Health major, minor, or certificate may double-count two courses across any allowable combination of these programs. The following restrictions apply: 1) students are limited to two minors and 2) Department of Public Health students may not earn a certificate or minor in the same area as their major.

Grade Point Average Requirement

Matriculation Prior to January 1, 2012. A minimum cumulative GPA of 2.0 is required for the Bachelor of Science degrees. In addition, a Department of Public Health major GPA of 2.3 must be maintained in order to graduate. For students seeking certificates or minors from Department of Public Health, the minimum GPA requirement is 2.0 in all applicable course work.

Matriculation Beginning January 1, 2012. A minimum cumulative GPA of 2.5 is required for the Bachelor of Science degrees.

Hours Requirement Students must successfully complete a minimum of 120 credit hours for most Bachelor of Science degrees. Students may transfer no more than 90 credit hours (60 credits from a junior college) toward a Bachelor of Science degree. Class standing, based on total credit hours that count toward minimum degree requirements, is as follows: senior, 86 or more; junior, 56-85; sophomore, 26-55; freshman, fewer than 26.

Independent Study Credit With prior approval, a student may take three courses totaling no more than 10 credit hours by **correspondence** through the IU Division of Extended Studies, Independent Study Program. Under no circumstances may a student satisfy a major requirement by correspondence.

Internship Credit With Department of Public Health faculty approval, a student in good standing may earn a maximum of 15 credit hours of elective credit through the Department of Public Health **internship** program. The Department of Public Health internship program is described in more detail at the Department of Public Health website.

Other Academic Programs Department of Public Health students may choose to pursue a **minor** or **certificate** from another school or department or within Department of Public Health in an area other than their degree or major. Students interested in a minor should contact that department for additional information.

Pass/Fail Credit Deadlines for exercising this option are published on the Registrar's office website (<http://www.registrar.iupui.edu>) and are strictly enforced.

Matriculation Prior to January 1, 2012. A student in good academic standing may choose to take a maximum of eight elective courses (two per academic year) **Pass/Fail** for a B.S. degree.

Matriculation Beginning January 1, 2012. A student in good academic standing may choose to take a maximum of four elective courses (one per academic year) but not to exceed 12 credit hours total **Pass/Fail** for a B.S. degree.

Requirements for a Second Bachelor's Degree Students must petition the Department of Public Health for approval to work toward a second bachelor's degree. If permission is

granted, students are required to take a minimum of 30 credit hours beyond the credits used for the first bachelor's degree and to satisfy all the requirements for the second degree. Generally, the Department of Public Health encourages students to work toward a graduate degree or graduate certificate rather than a second bachelor's degree. Petitions should be submitted to the Undergraduate Curriculum Committee.

Honors College and Accelerated Master's Programs

The Department of Public Health has two programs for academically talented students. Both programs provide students with an opportunity to earn advanced degrees in an accelerated timeframe.

Honors College Professional Admissions Program (HPS)

- The HPS program provides incoming freshman with an opportunity to earn the bachelor's and master's degrees in five years, rather than six years. This option is available for students interested in environmental health or health administration. For more information about admission requirements, contact the IUPUI Honors College at <http://honorscollege.iupui.edu/about/>.

Accelerated Master's Program (AMP) - The Accelerated Master's Program is a competitive program for outstanding Department of Public Health students who are seeking an advanced degree in health administration or environmental health. Participation in this program allows students to fulfill some graduate program requirements as undergraduates, and the graduate courses count for both graduate and undergraduate degree requirements. Students seeking admission to these programs must have at least 60 credit hours in the IU system at the time of admission and a cumulative GPA of 3.5 at the time of admission. For additional information students should contact the program director or academic advisor.

Department of Public Health

The Department of Public Health is home to two centers: The Indiana Public Health Training Center (IPHTC) and the Center on Health Policy. The IPHTC is a collaborative, multi-disciplinary center that promotes, supports, and delivers public health education to improve the skills and capabilities of Indiana's public health professionals. The Center for Health Policy (CHP) collaborates with state and local government and public and private health care organizations to conduct high quality program evaluation and applied research on critical health policy-related issues. Student organizations include the undergraduate and graduate student councils, which provide opportunities for all students to participate in school governance. These organizations sponsor activities for professional development, service contributions, and social networking. All students enrolled in a public health degree program are members of the undergraduate or graduate student councils.

Additional student organizations are the M.P.H. Student Association, the M.H.A. Student Association, which is open to all graduate health administration students, and Upsilon Phi Delta, a national honorary society for health administration programs.

Centers

Indiana Public Health Training Center (IPHTC)

The Indiana Public Health Training Center is dedicated to the improvement of public health practices for the health, safety, and welfare of Hoosiers. As a collaborative, multi-disciplinary center, the IPHTC promotes, supports, and delivers public health education to improve the skills and capabilities of Indiana's public health professionals. The IPHTC is Indiana's premier public health continuing education resource and is recognized for its collaboration, research, and leadership in public health.

The IPHTC provides continuing education to everyone interested in the important issues of public health. In a national effort to build competencies and improve capacity, courses help participants improve their knowledge and skill in public health. Learners have the opportunity to assess levels of competency, develop an education plan, and access competency-based courses to improve professional development. The IPHTC's services include:

- Online Training Through the Learning Management System (LMS), videos, courses, satellite downlinks, and MP3 files are available.
- On-site Sessions Face-to-face classes hosted by the Training Center are available throughout the state. A Public Health Speaker's Bureau provides local and national experts to speak at conferences, meetings, and events.
- Resource connection—Assistance in researching and connecting public health organizations.
- Technical Assistance—CD-ROMS, recordings, and electronic production services are also available.

To learn more about the IPHTC Office of Public Health Practice and a listing of current training opportunities, visit www.publichealthconnect.org.

Center for Health Policy (CHP)

The Center for Health Policy (CHP), created in 2006, is housed at Indiana University School of Medicine Department of Public Health. The CHP faculty and staff collaborate with state and local government, as well as public and private health care organizations in health policy and program development to conduct high quality program evaluation and applied research on critical health policy-related issues. The CHP faculty and staff serve as a bridge between academic health researchers and state and local government, health care organizations and community leaders.

To learn more about the Center for Health Policy, visit the www.healthpolicy.iupui.edu.

Faculty

For a complete and updated listing of the IU School of Medicine Department of Public Health faculty, please choose one of the websites below:

- [Epidemiology and Environmental Health](#)
- [Health Policy and Management](#)
- [Social and Behavioral Science](#)

Department and Program Administration staff can be found at the following websites:

- [Office of Department Chair](#)

- [Offices of Academic Programs and Alumni Services](#)
- [Office of Administration and Finance](#)

Graduate Courses

PBHL-A 609 Air Pollution and Health (3 cr.) This course provides an overview and foundation in the science and management of air quality, with a focus on health impacts and strategies to reduce these impacts. Course topics include the scientific technical aspects of air pollution through the study of the characteristics of the atmosphere and atmospheric pollutants, effects of meteorology on air pollution, urban air pollution, visibility, smog, acid deposition, stratospheric ozone depletion, global warming and indoor air pollution.

PBHL-A 610 Environmental Toxicology (3 cr.)

P: PBHL-A609 This course examines the extent and significance of toxic agents in the environment. It covers risk assessment of potential adverse health effect resulting from human exposure to toxic environmental agents. It also provides a background for understanding mechanistic and biologic specific processes of environmental agents.

PBHL-A 611 Environmental Health Risk Assessment (3 cr.)

P: PBHL-A610 This course provides a foundation in the processes and tools of environmental risk assessment, which is the basis for making technical decisions related to environmental issues and human health. Course topics include methods of probabilistic risk analysis, toxicological estimation, regulatory requirements for risk assessment, and managing and communicating risk.

PBHL-A 611 Environmental Health Policy Analysis (3 cr.)

This course provides students with a focus on the policy-making process and the many variables that comprise the dynamic framework for environmental policy formulation. The course explores the roles of politics, economics, science, health, values and ethics in setting policy through a consideration of key historical and contemporary issues.

PBHL-A 621 Solid and Hazardous Waste Management (3 cr.)

This course provides students with a technical foundation in areas of solid and hazardous waste management that can be applied to the examination of policy options. Topics include characterization of the waste stream, regulations, health and environmental risks, liability issues, management techniques, and treatment and disposal options.

PBHL-A 622 Chemistry for Environmental Health Professionals (3 cr.)

This course is designed to provide environmental health professionals, who are not chemists, with the technical background needed to understand and manage environmental health science issues. Topics include a detailed overview of basic principles of chemistry, followed by a more focused treatment of how these fundamentals apply to issues such as hazardous materials and wastes; water and air resources; pollution of the air, water, and land; and other related topics.

PBHL-A 623 Environmental Management Systems: ISO 14001 Based (3 cr.)

This course provides students with the knowledge and skills to establish or improve an environmental management system that is compatible with ISO (International Organization for Standardization) 14001,

an international, voluntary standard that is emerging as a best-management practice for environment.

PBHL-A 628 Food Safety and Sanitation (3 cr.)

This course will examine the various hazards that cause food borne illness as well as the risk factors that are known to contribute to these diseases. Topics include etiological agents for common and emerging food borne diseases; basic concepts of food science and technology; food safety principles and practices that are recommended by the Food and Drug Administration's Food Code.

PBHL-A 633 Occupational Health and Safety for Public Health Professionals (3 cr.)

This course provides a survey of technical and regulatory aspects of protecting the health and safety of workers. Topics include basic toxicology; skin, eye, and respiratory hazards; measuring hazardous atmospheres; ventilation systems; fire and explosion hazards; emergency response; occupational hearing loss; radiation; prevention of accidents; cumulative trauma; and personal protective equipment.

PBHL-B 640 Design and Analysis of Medical Experiments (3 cr.)

P: G652, P652, B641 or equivalent This is a course into the application of experimental design to biomedical experiments, such as randomization, blocking, factorial designs and stratification. The course addresses both clinical and pre-clinical investigation as well as design of experiments to evaluate medical devices, which will likely be encountered by biomedical researchers. It is addressed to second-year graduate students in biostatistics or epidemiology with a solid understanding of analysis of variance, regression and working knowledge of survival analysis. The course will be taught in two sessions, a lecture, where the relevant theory and methods will be presented, and a practicum or laboratory session, involving hands-on analysis of real-life problems using the SAS statistical software package.

PBHL-B 641 Linear Models in Public Health (3 cr.)

P: P551 or equivalent This is a first course into two multivariate statistical procedures, the Analysis of Variance (ANOVA) and Regression with special focus in problems related to the Public Health sciences. This is an introductory course that will expose students to these methods, and consolidate their understanding of statistical inference (estimation and testing of statistical hypotheses) in the context of the two procedures. The course will be taught in two sessions, a lecture, where the relevant theory and methods will be presented, and a practicum or laboratory session, involving hands-on analysis of real-life problems using the SAS statistical software package.

PBHL-B 642 Applied Survival Analysis for Public Health (3 cr.)

P: Students must have taken one course in basic statistics and another course in linear regression models. Students must have prior knowledge of SAS for completion of homework. The statistical methods covered in this course focus on "time to event" data, where the event can be response to treatment, relapse of disease, or death. Topics covered in this course include estimations of survival function and regression models for survival data. Specifically, this course covers the central functions of survival analysis: the hazard, survival, and cumulative hazard functions, nonparametric estimation of survival functions using life-table method and the Kaplan-Meier method, and comparison of survival distributions using the log-rank and other tests. In addition, we will discuss regression models for survival

outcomes with emphasis on the Cox proportional hazards model. Alternative models such as the accelerated failure time model and use of parametric distributions (exponential, Weibull) will also be considered. Class material will include presentation of statistical methods for estimation and testing, along with current software (SAS) for implementing analyses of survival data. Applications to real data will be emphasized.

PBHL-B 644 Applied Generalized Linear Models and Longitudinal Data Analysis (3 cr.) P: Students registering for this course are expected to have completed "Linear Models in Public Health" or its equivalents with a B or better grade. This is an introductory statistical method course on generalized linear models and longitudinal data analysis for students in various public health disciplines. The course focuses on the basic concepts and implementation of four extensions to classical linear regression models: (1) generalized linear models (including logistic and log-linear regression); (2) mixed effects models; (3) generalized linear mixed models; and (4) population average models based on generalized estimating equations (GEE).

PBHL-B 653 Applied Multivariate Statistical Methods (3 cr.) P: P551 and P652. B653 is an introductory multivariate statistics course. This course is applied and is intended for non-statisticians, for example, masters or PhD students in behavioral, psychological, educational or medical sciences, or other health care professionals. Students are expected to have taken two previous courses in statistics (introductory and intermediate) covering up through t-test, ANOVA, ANCOVA and linear regression. The overall objective of the course is to introduce the most commonly used multivariate statistical techniques with emphasis on applications to real data which will be analyzed with SPSS. The emphasis will be on concepts, assumptions, applications, and hands-on interpretation of SPSS results. Formulas or matrix algebra will not be emphasized.

PBHL-E 715 Design and Implementation of Observational Studies (3 cr.) P: P517 and Research Methods This course examines fundamental aspects of designing and implementing observational epidemiology studies. The focus is on developing strategies to increase the validity of the study results by using techniques to control for possible confounding factors and biases. Topics include sampling methods, sensitivity, data weighting, standardization, selection of cases and controls, matching, data collection and project management.

PBHL-E 720 Analysis and Interpretation of Observational Studies (3 cr.) P: This course is designed for students in the PhD program in Epidemiology. Advanced students in the Master of Public Health degree program, Epidemiology concentration may register for this course with the permission of the professor. P: PBHL-E 715 Design and Implementation of Observational Studies. This course examines fundamental aspects of analyzing data generated by observational epidemiology studies. The focus is on developing a solid understanding of contemporary analytical techniques to increase the validity of the study and control for possible confounding factors and biases.

PBHL-E 730 Analysis of Genetic Associations (3 cr.) P: P601 (Advanced Epidemiology), P652 (Biostatistics for Public Health II), and P730 (Molecular and Genetic Epidemiology), or signature of instructor required. This course introduces the conceptual and practical tools needed

for population-based genetic association studies among unrelated subjects. Lectures and selected readings present key issues (such as linkage disequilibrium, "tagging SNPs," haplotypes, population stratification and epistasis) and appropriate statistical methods. Students will be required to present selected papers in class. Students will gain hands-on experience with a range of analytic tools and software packages as part of a class project which gives them the opportunity to design and analyze an association study. This project will require students to work on real-world problems such as marker selection, potential multiple comparisons issues due to multiple markers and multiple outcomes, and missing data.

PBHL-E 731 Design and Analysis of Genetic Association Studies (3 cr.) P: P601 (Advanced Epidemiology), P652 (Biostatistics for Public Health II), and P730 (Molecular and Genetic Epidemiology), or signature of instructor required. This course introduces the conceptual and practical tools needed for population-based genetic association studies among unrelated subjects. Lectures and selected readings present key issues (such as linkage disequilibrium, "tagging SNPs," haplotypes, population stratification and epistasis) and appropriate statistical methods. Students will be required to present selected papers in class. Students will gain hands-on experience with a range of analytic tools and software packages as part of a class project which gives them the opportunity to design and analyze an association study. This project will require students to work on real-world problems such as marker selection, potential multiple comparisons issues due to multiple markers and multiple outcomes, and missing data.

PBHL-E 750 Doctoral Topics in Public Health (3 cr.) Courses offered under this course number would include PhD courses on topics expected to be offered only once, such as those taught by visiting faculty, and those that are newly developed and have not yet been assigned a specific course number. The course will focus on a specific topic or technique related to the field of Public Health. The material to be studied will be determined by the instructor with input from the PhD faculty.

PBHL-E 751 Doctoral Readings in Epidemiology (1-3 cr.) This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Epidemiology. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop a strategy to identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement

PBHL-E 752 Doctoral Research in Epidemiology (1-3 cr.) This course is designed to allow PhD students the opportunity to explore research questions by collecting data or using existing data related to their field of study in Epidemiology. The study topic will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD

student is expected to work closely with the faculty member to develop the study protocol, obtain IRB approval if necessary, obtain the data and collect the planned data analysis. The time frame for completion and the nature of the study product will be determined by the PhD student, faculty member and advisor. Generally the product will be a manuscript for submission to an appropriate journal. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-E 765 Nutritional Epidemiology (3 cr.) P: P517 and P551 This course provides students with an overview of fundamental concepts and methods of nutritional epidemiology and the current state of knowledge on well-studied associations between diet and chronic diseases. Emphasis will be placed on the design, implementation, analysis, and interpretation of nutritional epidemiologic studies

PBHL-E 775 Doctoral Research Seminar in Epidemiology (1 cr.) This course is designed to expose PhD students to a wide range of specific research topics and issues in Public Health. The seminar topics will be chosen by the Director of the PhD program with input from other faculty members. The PhD students are expected to attend each seminar session, read assigned material, and participate in the seminar discussions. The PhD students may be asked to present their research projects during the seminar to obtain feedback and recommendations from the faculty and other students.

PBHL-E 780 Pharmacoepidemiology (3 cr.) P: P517 This is an introductory pharmacoepidemiology course. Students will learn how principles of modern epidemiologic methods are used to evaluate the safety, effectiveness, and utilization patterns of medical products (drugs, vaccines, and medical devices) in human populations, with a focus on observational studies. Related topics, including therapeutic risk management, data sources and ethical principles will be discussed. Advanced methodology, such as that utilized to address confounding by indication and misclassification will be introduced.

PBHL-G 651 Introduction to Biostatistics I (3 cr.) P: One year undergraduate mathematics is required. Working knowledge on linear algebra and elementary calculus is expected. Students with insufficient mathematics preparation are expected to remedy the deficiency on their own. G651 is an introductory level biostatistics course designed for healthcare professionals. This course will cover the topics on data presentation techniques, describing data with numerical summary measures, probability and probability distributions, sampling distributions, statistical inferences from small and large samples, analysis of categorical data, analysis of variance, correlation and simple linear regression analysis.

PBHL-G 652 Introduction to Biostatistics II (3 cr.) P: G651 or equivalent G652 is an advanced biostatistics course designed for students with an interest in the health sciences. Students are expected to have completed at least one semester course of basic biostatistics. Knowledge of probability and probability distributions, concepts of estimation and hypothesis testing are assumed. Topics covered in this course include multiple linear regression, analysis of covariance, logistic regression, and survival

analyses. Upon completion of the course, students are expected to understand the appropriate statistical models for various outcomes and be able to interpret results using statistical techniques covered in this course. Students are also expected to conduct simple analyses using SPSS on personal computers

PBHL-H 501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.) Study of health, illness, and disease trajectories and the systemic components that mold the health care system. Ideological paradigms predicting utilization and health behaviors are addressed, as are guidelines for ethical decision making and problem analysis. Formulation and implementation of organizational and governmental policies and their associated theoretical assumptions are addressed.

PBHL-H 507 Management of Individual and Group Behavior (3 cr.) This course provides a conceptual framework for understanding behavior in the work environment by introducing concepts concerning effective management of people in organizations. Key theories and concepts in the field of organizational behavior will be introduced. The focus of this course is at the micro level of analysis, addressing topics such as individual theories of motivation, job design, and diversity issues; management of work teams; group decision making; managing conflict; and leadership, influence, and power issues.

PBHL-H 508 Managing Health Care Accounting Information for Decision-Making (3 cr.) P: undergraduate principles of accounting. Provides a user-oriented understanding of how accounting information should be utilized, focusing on balance sheet and income statement and cash flow analysis, budgeting, cost analysis, and responsibility accounting.

PBHL-H 509 Financial Management Principles of Health Care (3 cr.) P: SPHA-H 508. Provides knowledge of corporate finance practice in health care organizations. Establishes an understanding of the basic elements of financial theory used to address service expansion or contraction, capital investment issues, developing business plans and working capital management.

PBHL-H 514 Health Economics (3 cr.) P: 3 credit hours of undergraduate economics. Examines the principles and application of economic analysis in the health field and the economist's approach to health care issues. Provides insights offered by economic analysis of specific health issues and problems.

PBHL-H 515 Seminar in Health Policy: Special Topics (3 cr.) P: SPHA H501, H503, or consent of instructor. Exploration of health policy topics from economic, financial, sociological, political, and psychological perspectives. Analytical paradigms are applied to organizational or macro-policy making issues that vary in response to changing environments. May be repeated once with advisor's approval.

PBHL-H 516 Health Services Delivery and the Law (3 cr.) Medical-legal concepts related to hospitals and other health services organizations. Course provides an in-depth understanding of the law and the legal processes affecting the health services system. Presentation of the elements of

administrative and agency processes, torts, contracts, facilities, physicians, patients, and personnel.

PBHL-H 517 Managerial Epidemiology (3 cr.) Examines general epidemiologic methods such as population descriptive techniques, use of health indicators and secondary health-related data sources. Includes design, administration, and analysis of observational and experimental studies. Emphasis will be on the use of epidemiologic techniques to assess community health, determine community risk factors, and evaluate community-based programs.

PBHL-H 518 Statistical Methods for Health Services (3 cr.) P: 3 credit hours of undergraduate statistics. Study of the quantitative techniques commonly used to examine health-related data. Includes univariate, bivariate, and multivariate techniques. Emphasis is on using statistical techniques to make policy and administrative decisions in a health services setting. Students use standard computer software to analyze data.

PBHL-H 521 Management Science for Health Services Administration (3 cr.) Focus is on management science methods, as applied to health sciences administration. Includes treatment of decision theory, constrained optimization, and probability simulation.

PBHL-H 523 Health Services Human Resource Management (3 cr.) This course provides the knowledge and skills needed to understand the application of personnel and labor relations techniques to the health services sectors, with particular emphasis on human resources management, employees' benefit programs, and labor relations as applied to the health services delivery organization.

PBHL-H 606 Health Services Quality Improvement and Risk Management (3 cr.) P: H501, H503, and V504. Critically examines the concepts, strategies, and techniques related to the improvement of the quality of health service delivery. Addresses the increasing need to enhance productivity given the impact of external and other factors on the workplace. Principles and application of risk management concepts and techniques, including insurance, are emphasized.

PBHL-H 612 Marketing for Health Services Delivery (3 cr.) This course focuses on the marketing problems and strategies of health care organizations. Subjects include the nature of health care services, organizing for health service delivery, managing health services demand, tailoring customer mix, and managing supply in health care services.

PBHL-H 615 Health Care Outcomes and Decision Making (3 cr.) P: H501, H502, H514, and H518. Application of health outcomes measures in decision-making and evaluation in various health service settings. Includes designing and implementing evaluation plans of health and social programs. Emphasis on evaluation strategies, measurement of health outcomes, and management decision-making.

PBHL-H 623 Health Care Applications of Strategic Management (3 cr.) P: H501, H502, H510, and H521. This last course of the series in the capstone sequence is designed to assist students in synthesizing and summarizing all of the previous course work. Emphasis is on "real-world" case situations and requires active participation by the

students. Case studies chosen reflect current management issues in health services administration.

PBHL-H 624 Developing Strategic Capability (3 cr.) This course explores management roles in health care. Application of strategic management theories, concepts and principles and an understanding of managerial roles in organizations are emphasized. Managerial process, management theories, leadership, organizational design, and strategic management are examined.

PBHL-H 628 Health Care Information Systems (3 cr.) A study of the terminology, technology, and application of information systems in various health care settings. Topics include the gathering, organization, storage, and retrieval of complex data banks, as well as assessment of health service data needs and considerations in developing information systems. Includes many computer-based exercises.

PBHL-H 702 Internship in Health Services Management (3 cr.) P: H501, H509, H514, and H650. Requires the equivalent of a minimum of 3 credit hours of on-site experience under the supervision of a qualified preceptor and program faculty. Grading is on an S/F basis.

PBHL-H 735 Research in Health Administration (3-6 cr.) P: all core courses or consent of instructor. Field research conducted under the direction of a faculty member. Designed for advanced students and those who have elected not to take a residency. Grading is on an S/F basis.

PBHL-H 746 Comparative Effectiveness Research Methods (3 cr.) P: P517 and P551 This course introduces the range of methods and associated political and ethical issues related to comparative effectiveness research in health and medicine, with a particular focus on developing quantitative skills to the design, review and analysis of clinical trials (e.g. drugs, devices, clinical or behavioral strategies). Students will learn quantitative methodologies that can be utilized to synthesize a range of evidence regarding the benefits and harms of available choices for care, and will explore the potential and limitations of comparative effectiveness findings for policy and health care decision making.

PBHL-H 775 Doctoral Readings in Health Policy and Management (1-3 cr.) This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Health Policy and Management. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop a strategy to identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-H 775 Doctoral Research Seminar in Health Policy and Management (1-3 cr.) This course is designed to expose PhD students to a wide range of specific research topics and issues in Public Health. The seminar topics will

be chosen by the Director of the PhD program with input from other faculty members. The PhD students are expected to attend each seminar session, read assigned material, and participate in the seminar discussions. The PhD students may be asked to present their research projects during the seminar to obtain feedback and recommendations from the faculty and other students.

PBHL-H 775 Doctoral Readings in Health Policy and Management (1-3 cr.) This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Health Policy and Management. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop a strategy to identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-P 500 Social and Behavioral Science in Public Health (3 cr.) This course is designed to introduce students to the philosophies and principles that provide the foundation for health promotion and disease prevention with an emphasis on population-based public health approaches. Students will explore topics that promote a broader and better understanding of determinants of health; the multiple factors contributing to health and illness behaviors; fundamentals, theories and principles that shed light on health and illness behaviors; and philosophies, principles and strategies that facilitate improvements in population health and the elimination of health disparities. Students will be introduced to the important complementary relationships between and comingled effects of the determinants of health with an emphasis on the social determinants of health. Students will be presented with new approaches to improve, by not only focusing on individual capacities and capabilities to address their diseases and/or ailments, but also, most importantly perhaps, focus on the conditions and contexts in which individuals have the liberty and limits to make choices that influence health and illness behaviors in many different ways.

PBHL-P 500 Social and Behavioral Science in Public Health (3 cr.) This course is designed to introduce students to the philosophies and principles that provide the foundation for health promotion and disease prevention with an emphasis on population-based public health approaches. Students will explore topics that promote a broader and better understanding of determinants of health; the multiple factors contributing to health and illness behaviors; fundamentals, theories and principles that shed light on health and illness behaviors; and philosophies, principles and strategies that facilitate improvements in population health and the elimination of health disparities. Students will be introduced to the important complementary relationships between and comingled effects of the determinants of health with an emphasis on the social determinants of health. Students will be presented with new approaches to improve, by not only focusing on individual capacities and capabilities

to address their diseases and/or ailments, but also, most importantly perhaps, focus on the conditions and contexts in which individuals have the liberty and limits to make choices that influence health and illness behaviors in many different ways.

PBHL-P 504 U.S. Health Care Systems and Health Policy (3 cr.) This course explores the U.S. health care system, policy development, and ethical challenges. It examines the structure, components, organization and financing of the U.S. health care system. The policy process at national, state and local levels will be analyzed using legislation and related activities.

PBHL-P 517 Fundamentals of Epidemiology (3 cr.) This course will introduce students to basic epidemiologic concepts including determinants of health and patterns of disease in populations, population health descriptive techniques, use of health indicators and secondary data sources. Students will gain an understanding of the role of Epidemiology in developing prevention strategies and policy. Among the topics to be covered are measures of mortality and morbidity, design and analysis of observational studies, community health assessment and program evaluation.

PBHL-P 519 Environmental Science in Public Health (3 cr.) The primary focus of this course will be on pathogenic agents (biological, chemical, and physical) in the environment and their impact on morbidity and mortality of human populations. We will study several types of common and emerging pathogens from anthropogenic and natural sources and how they cause illness and/or injury. Particular attention will be given to the mode of transmission, route of exposure, and acute and chronic diseases or injuries caused by these environmental agents. During the class we will also investigate the strategies, technologies and laws/policies that are used to prevent, control, or eliminate environmental hazards.

PBHL-P 551 Biostatistics for Public Health I (3 cr.) This course introduces the basic principles and methods of data analysis in public health biostatistics. Emphasis is placed on public health examples as they relate to concepts such as sampling, study design, descriptive statistics, probability, statistical distributions, estimation, hypothesis testing, chi-square tests, t-tests, analysis of variance, linear regression and correlation.

PBHL-P 600 Epidemiologic Research Methods (3 cr.) P: P517 and P551. This course provides an in-depth presentation of the major research designs, analytical methods, and practical issues specifically related to conducting research in the field of epidemiology, outcomes research, and health economics. Descriptive, observational and experimental designs are included. In addition, issues of ethics, protocol, data quality, instrument design, and analysis are covered.

PBHL-P 601 Advanced Epidemiology (3 cr.) P: P517 & P551 (or concurrently enrolled). This course provides students with an in-depth understanding of advanced epidemiologic concepts introduced in other courses as well as a fundamental understanding of epidemiologic techniques not covered in other classes. Topics included will represent cutting edge techniques, philosophical issues and insights to appropriately conduct and interpret the findings of

epidemiological studies. Students will gain an understanding of these concepts and issues through discussions with expert epidemiologists and hands-on exercises.

PBHL-P 602 Public Health Internship (3 cr.) P: MPH core and approval of concentration advisor. Integrates public health theory and practice in a practice setting. Students have the opportunity to apply concepts from core and concentration courses, conduct projects and interact with a range of health professionals. Students work both with a faculty advisor and qualified preceptor in the agency.

PBHL-P 609 Infections Disease Epidemiology (3 cr.) P: P517. This course is designed to provide a basic overview of the infectious disease process, including disease agents, transmission routes, immunity and public health significance. The course introduces principles of infectious disease epidemiology, including outbreak investigation and surveillance, using case studies as examples. Concepts on globalization of disease, microbial ecology, and disease eradication also are discussed.

PBHL-P 610 Chronic Disease Epidemiology (3 cr.) P: P517. This course examines chronic health conditions from epidemiological perspectives. Concepts include distribution, determinants; diagnosis; measures of severity; treatment modalities; surveillance measures; survival and prognosis; and quality of care measures. Research methods prevention strategies and screening tests are presented. Clinical expert's present diagnosis and treatment methods.

PBHL-P 611 Policy Design, Implementation and Management (3 cr.) This course will examine the reasons for this in terms of the politics of health and the implications for the future of health policy in the United States. Further, health policy topics from economic, financial, sociological, political and psychological perspectives will be covered. Analytical paradigms are applied to organizational or macro-policy making issues. Topics vary by semester according to current policy challenges faced at the federal level.

PBHL-P 612 Health Outcomes Research (3 cr.) P: P517 & P551. This web-based course is evidence-based and focused on health outcomes research in contemporary health care. The different types of health outcomes assessment tools and their application in determining patient health status, changes in health status, and the effectiveness of health care interventions will be addressed. The course will focus on generic and specific health related outcomes assessment tools, looking at such issues as disease specific outcomes and patient satisfaction.

PBHL-P 613 Public Health and Emergency Preparedness (3 cr.) This graduate elective course is designed to familiarize learners with emergency preparedness concepts due to natural and man-made disasters. The course will also review biological agents used for terrorism in the past, and agents the Centers for Disease Control consider most likely to be used at present. The content will be delivered via, seminar discussion, web based activities, CDs addressing bioterrorism, resources for infection control and key resources for further exploration. Other student opportunities include readings from past great works depicting responses to naturally occurring infectious disease or contemporary responses to disasters and terrorism/bioterrorism. Public

health responses to emergency preparedness at local, state and federal levels will also be discussed.

PBHL-P 614 Program Planning in Public Health (3 cr.) This course will provide students with a systematic approach to program planning and evaluation of health programs. Students will apply program planning, implementation and evaluation theory to develop an evidence-based health promotion program that addresses a public health issue of personal interest.

PBHL-P 615 Culture and Qualitative Methods (3 cr.) This course provides learning opportunities for public health graduate students to develop an understanding of culture and of how qualitative methods can be used to develop a sensitivity to and an understanding of cultural practices. Such cultural sensitivities and competencies are basic to effective program planning, implementation, service delivery, and program evaluation. This class will provide important knowledge and opportunities related to public health practice in a community setting comprised of a multicultural population with differing health beliefs, values, behaviors and health care needs. By the end of the semester, the student will be able to define and distinguish the concepts of culture and traditions, acculturation and enculturation, traditionalism and modernism and will be able to begin to identify how to build on cultural practices to develop interventions aimed at influencing health behaviors. Further, the student will have active experience in conducting qualitative research in a community setting, including skills in conducting windshield surveys, participant observations, key informant interviews, and focus groups.

PBHL-P 616 Strategic Planning for Health Services Organizations (3 cr.) This courses aims to develop the student's knowledge and ability in strategic management in health services organizations. Based on an introduction to the general process model of strategic management, the course will engage in detailed discussions of a series of topics in strategic management. These topics include the identification of the organization's mission, vision, and values, the analysis of the external and internal environment of the organization, the identification of strategic challenges and opportunities, the development of strategies, the evaluation of strategies, the communication of strategies, and the development and evaluation of an action plan. The course emphasizes the unique strategic challenges facing health services organizations and their leadership, and aims to develop accordingly the student's ability to identify, analyze and address these challenges. The course utilizes real-world cases to facilitate the understanding of basic course content. The conceptual model of strategic management will be illustrated through the analysis of selected health care cases. The student will also be required to independently analyze a strategic case most relevant to their field of work or study applying the conceptual strategic planning process.

PBHL-P 618 Cancer Epidemiology (3 cr.) P: P517 This course is an overview of cancer epidemiology, focusing on key concepts, etiologic research, applications to public health practice and major epidemiologic methods. This course is designed for students who have an interest in epidemiology.

PBHL-P 619 Health Economics for Public Health Professionals (3 cr.) This is an introductory microeconomics course with applications to the public health and health care systems. The course objectives are that the students develop

an appreciation of economic theories and principles, exacting assumptions thereof, and how these theories and principles apply to the public health and health care markets, particularly how price drives resource allocation in addition to signaling value, substitution and technological innovation. Students will also be introduced to skills need to measure and interpret economic values and relationships including the interpretation of quantitative data analysis. We will examine how economic incentives affect the different actors in the health (care) system. The fundamental models of economic and organizational behaviors will be extended to describe the behaviors of the different health care players and the health (care) system as each tries to maximize utility and profits (or min costs), respectively, under different financial, regulatory and technological constraints. Most importantly, students will be able to explore the limits to markets and rationality, and develop an appreciation for how a variety of checks and balances-more so that unbridled competition-contribute to efficient and equitable functioning of and outcomes in a market.

PBHL-P 631 Maternal, Child, and Family Health (3 cr.)

Overview of Maternal Child health with emphasis on conditions and issues effecting reproductive, childhood, and women's wellbeing. Includes classroom lecture, discussion, and student presentations.

PBHL-P 632 History of Public Health (3 cr.) This course surveys the history of public health from antiquity to the late twentieth century with the aim of providing students with an understanding of how history may inform present day challenges regarding the health of populations, including emerging infectious diseases; climate change; dislocation of populations from conflicts and natural disasters; malnutrition; and chronic diseases in aging populations. Using a chronological and thematic approach to history, students will learn of the origins, natural histories, and important determinants of the structure and function of modern systems of public health in the United States. The course will explore the complex interactions within populations of disease, science, social and cultural norms, moral/ethical values, economic and legal precepts, health professionals, institutions, and government in shaping the rate of adoption and diffusion of public health systems. The course will use a readings/discussion format with limited didactic teaching and an emphasis on active learning. Each week students will read 4-7 papers and be prepared to discuss them in class. Important goals of the course are to stimulate interest in the history of public health, learn about the methods and tools used in historical research, and promote critical thinking.

PBHL-P 644 Health Impact Assessment (3 cr.) The goal of this course is to introduce students to the theoretical and practical aspects of health impact assessment (HIA) as a methodological tool in public health. HIA utilizes a variety of qualitative and quantitative methods and tools, designed to assess the potential health effects of a public policy, program, project, or initiative. While HIA is still an emerging practice in the United States, in Europe, Canada, and other areas of the world, the assessment of the public health impact of public decisions have been performed regularly to support policy decisions and promote conditions required for optimal health. During the first part of the semester, students will learn the necessary steps to conduct an HIA, review national and international case studies, and discuss how findings

may or may not impact policy making. During the second half of the course, students will work in teams with a local or state health department to examine the potential health impact of policy proposals in Indiana.

PBHL-P 650 Readings in Public Health (3 cr.) This course is designed to expose the student to different readings in public health. The course will allow the student to apply skills learned in the public health core courses by collecting data and applying techniques. The student will be required to read critically published papers and identify research topics.

PBHL-P 650 Readings in Public Health Topic: Health Communication (3 cr.) Effectively communicating health messages to the public can be a challenge. From advertising a program to promoting behavior change, there are many tools and actions that can yield positive results. This course will offer theory and practical experiences through the steps of creating a communications plan and actual campaign. Case studies, guest speakers, and hands-on experiences will be blended together.

PBHL-P 652 Biostatistics for Public Health II (3 cr.)

P: P551. This course introduces the advanced principles and methods of data analysis in public health biostatistics. Emphasis is placed on public health examples as they relate to concepts such as: Multiple regression, analysis of variance and covariance, logistic regression, nonparametric statistics, survival analysis, statistics used in epidemiology, and repeated measures analysis.

PBHL-P 655 Historical Evolution of Epidemiology (3 cr.)

P: P517. The course will explore the historical developments and public health responses to human disease morbidity and mortality, and their importance and influence on the role of public health in modern society. Readings and discussion will examine in detail, the evolutionary change in the epidemiologic response of a Variety of disease of national and international importance.

PBHL-P 657 Application of Cost-Effectiveness Analysis in Public Health (3 cr.)

Cost-effectiveness analysis is widely used in evaluating the performance of public health programs and policies. In this course, students will learn to frame the conceptual model, to collect and synthesize data regarding "cost" and "effectiveness", to perform a cost-effectiveness analysis, and to form recommendations based on the analysis. Meta-analysis and various survey/interview techniques will be introduced as essential tools for data collection in cost-effectiveness analyses. Learning will be facilitated by numerous examples of the application of this popular method. Health Policy and Management students have option of taking this course in place of H509.

PBHL-P 658 Methods of Health Services and Policy Research (3 cr.)

This is a required course for students in the Health Policy and Management concentration. It aims to familiarize students with the methods of health services research and policy research. It introduces various study designs, data collection methods, and data analysis techniques that are relevant to students and researchers in these fields. It discusses the ethical, legal and political implications of health services and policy research. Students will apply theoretical knowledge in the analysis of actual data. This course also aims to facilitate the development of student's final concentration project.

PBHL-P 659 The Tobacco Pandemic (3 cr.) This course focuses on U.S. and global Tobacco Control, including the health and economic burdens of tobacco use as well as evidence-based approaches to prevention and management. Students will explore how human use of the plant *Nicotiana tabacum* with its potent alkaloid, nicotine, evolved into the largest human made pandemic in world history. The nature, prevalence, and trends of tobacco addiction, tobacco-related diseases, and their treatment will be addressed, as well as the centuries long "tobacco wars," pitting the tobacco industry's effective marketing of their products against the often fragmented, underfunded, and ineffectual government and anti-tobacco forces. Students will review the rise, over the past 50 years, of effective science and evidence-based tobacco control policy in the U.S.: U.S. Surgeons General Reports; CDC Best Practices for Comprehensive Tobacco Control Programs; U.S. PHS Clinical Practice Guidelines: Treating Tobacco Use and Dependence, and related sources. The future of Tobacco Control, including various scenarios for the "end game" of tobacco use in modern societies will be addressed, in light of recent major legal, political, and economic changes in the landscape of Tobacco Control in the U.S and globally.

PBHL-P 670 Topics in Public Health (3 cr.) This course has a variable title and can be offered for variable credits. Similar to topics courses offered in other IUPUI programs, this course offers an introduction to a variety of public health topics and current issues will be covered in this course.

PBHL-P 670 Advanced Public Health Survey Research (3 cr.) This course provides an intensive focus on the formative phases of health survey research. Topics covered will include sampling methodologies, questionnaire development, testing, revision and administration, interviewing, coding procedures, as well as topical discussions related to research ethics and real world challenges of research. Active learning will be emphasized through several field based exercises, as well as a research proposal based on students' own research interests.

PBHL-P 670 Applied Public Health Campaigns and Social Marketing Strategies (3 cr.) Effectively communicating public health messages can be a challenge. From advertising a program to promoting behavior change, there are many social marketing strategies and tools that yield positive results. This course will offer students practical opportunities to apply these strategies and tools in the development and evaluation of public health campaigns. Case studies, guest speakers, and hands-on experiences will be incorporated in this class.

PBHL-P 670 Cardiovascular Epidemiology (3 cr.) P: P517 and P601 An advanced graduate course that discusses the topics related to the epidemiology and prevention diseases. The purpose is to give students an overview of the major cardiovascular diseases and their risk factors.

PBHL-P 670 Global Perspectives of Health Policy and Health Systems (3 cr.) This 3 hour course is designed to expand students' perspectives on global health care through the in-depth study of health care and health systems that are distinct from the U.S. health care system. Students also will learn how health policy and management research apply the comparative method in the study of health systems and health policy. Finally, students will explore health policy as a global challenge through a systematic discussion of

international health policymaking and responses to health problems requiring global or regional nation-level cooperation.

PBHL-P 700 Concentration Project Completion (1 cr.) This course is designed for MPH students who are working on their Final Concentration Project until project grade has been assigned. Enrollment in PBHL-P700 allows students access to the library, computer labs, IRB, other campus facilities/services and to meet with academic advisors. In addition it allows students to retain eligibility for financial aid and loan deferment. Students enrolled in 45 credit hours are eligible to enroll in P700.

PBHL-P 701 Public Health Biostatistics Concentration Final Project (3 cr.) P: MPH Core; Public Health Internship.

PBHL-P 702 Public Health Social and Behavioral Science Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge through course work and the public health internship. Student projects will include components of behavioral health sciences research and application.

PBHL-P 703 Environmental Science Concentration Final Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge acquired through coursework and the public health internship. Student projects will include components of environmental science analysis, research, and application

PBHL-P 704 Public Health Epidemiology Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Students synthesize and integrate knowledge acquired through course work and the public health internship by conducting an epidemiological study. Satisfactory projects include epidemiological research that involves protocol development, data collection and analysis and presentation of an oral presentation and written report.

PBHL-P 705 Public Health Policy and Management Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge acquired through coursework and the public health internship. Student projects will include components of health policy analysis or management research and application.

PBHL-R 515 Sociology of Health and Illness (3 cr.) This course will acquaint students with the theoretical and empirical foundations of the sociology of health and illness, as well as exposing him/her to the important theoretical and empirical research done by sociologists of health and illness. R515 uses sociological perspectives and sociological research techniques to investigate the social and behavioral phenomena associated with health, disease, and health care. The field deals with quite a broad range of topics, including (but not limited to): social influences on the distribution of disease, the influence of inequality on health, the impact of culture on symptom recognition and help seeking, the relation of medicine to institutions of social control, the distinctive characteristics of medicine as a type of work, cost containment issues, the impact of economic factors on the distribution and organization of health care, the implications an aging population has for the provision of health care in the United States, and a consideration of the ethical issues raised by modern biomedicine, etc.

PBHL-S 658 Methods for Research on Social and Behavioral Dimensions of Public Health (3 cr.) This course will train students in basic research methods used by social and behavioral scientists in the public health arena. Through lectures, labs, individual and group activities, students will learn how to read empirical research and evaluate its quality in order to become good consumers of existing research. Students will also learn to produce quality research through an understanding of theoretical foundations, research design and the basics of measurement theory.

Courses

The abbreviation "P" refers to course prerequisites and "R" to recommended prerequisite courses. Prerequisites can be waived by the instructor of the course. The number of hours of credit is indicated in parentheses following the course title. Courses are listed in three groups: environmental health science, health services management, and public health.

Graduate Courses

PBHL-A 609 Air Pollution and Health (3 cr.) This course provides an overview and foundation in the science and management of air quality, with a focus on health impacts and strategies to reduce these impacts. Course topics include the scientific technical aspects of air pollution through the study of the characteristics of the atmosphere and atmospheric pollutants, effects of meteorology on air pollution, urban air pollution, visibility, smog, acid deposition, stratospheric ozone depletion, global warming and indoor air pollution.

PBHL-A 610 Environmental Toxicology (3 cr.)
P: PBHL-A609 This course examines the extent and significance of toxic agents in the environment. It covers risk assessment of potential adverse health effect resulting from human exposure to toxic environmental agents. It also provides a background for understanding mechanistic and biologic specific processes of environmental agents.

PBHL-A 611 Environmental Health Risk Assessment (3 cr.) P: PBHL-A610 This course provides a foundation in the processes and tools of environmental risk assessment, which is the basis for making technical decisions related to environmental issues and human health. Course topics include methods of probabilistic risk analysis, toxicological estimation, regulatory requirements for risk assessment, and managing and communicating risk.

PBHL-A 611 Environmental Health Policy Analysis (3 cr.) This course provides students with a focus on the policy-making process and the many variables that comprise the dynamic framework for environmental policy formulation. The course explores the roles of politics, economics, science, health, values and ethics in setting policy through a consideration of key historical and contemporary issues.

PBHL-A 621 Solid and Hazardous Waste Management (3 cr.) This course provides students with a technical foundation in areas of solid and hazardous waste management that can be applied to the examination of policy options. Topics include characterization of the waste stream, regulations, health and environmental risks, liability issues, management techniques, and treatment and disposal options.

PBHL-A 622 Chemistry for Environmental Health Professionals (3 cr.) This course is designed to provide environmental health professionals, who are not chemists, with the technical background needed to understand and manage environmental health science issues. Topics include a detailed overview of basic principles of chemistry, followed by a more focused treatment of how these fundamentals apply to issues such as hazardous materials and wastes; water and air resources; pollution of the air, water, and land; and other related topics.

PBHL-A 623 Environmental Management Systems: ISO 14001 Based (3 cr.) This course provides students with the knowledge and skills to establish or improve an environmental management system that is compatible with ISO (International Organization for Standardization) 14001, an international, voluntary standard that is emerging as a best-management practice for environment.

PBHL-A 628 Food Safety and Sanitation (3 cr.) This course will examine the various hazards that cause food borne illness as well as the risk factors that are known to contribute to these diseases. Topics include etiological agents for common and emerging food borne diseases; basic concepts of food science and technology; food safety principles and practices that are recommended by the Food and Drug Administration's Food Code.

PBHL-A 633 Occupational Health and Safety for Public Health Professionals (3 cr.) This course provides a survey of technical and regulatory aspects of protecting the health and safety of workers. Topics include basic toxicology; skin, eye, and respiratory hazards; measuring hazardous atmospheres; ventilation systems; fire and explosion hazards; emergency response; occupational hearing loss; radiation; prevention of accidents; cumulative trauma; and personal protective equipment.

PBHL-B 640 Design and Analysis of Medical Experiments (3 cr.) P: G652, P652, B641 or equivalent This is a course into the application of experimental design to biomedical experiments, such as randomization, blocking, factorial designs and stratification. The course addresses both clinical and pre-clinical investigation as well as design of experiments to evaluate medical devices, which will likely be encountered by biomedical researchers. It is addressed to second-year graduate students in biostatistics or epidemiology with a solid understanding of analysis of variance, regression and working knowledge of survival analysis. The course will be taught in two sessions, a lecture, where the relevant theory and methods will be presented, and a practicum or laboratory session, involving hands-on analysis of real-life problems using the SAS statistical software package.

PBHL-B 641 Linear Models in Public Health (3 cr.)
P: P551 or equivalent This is a first course into two multivariate statistical procedures, the Analysis of Variance (ANOVA) and Regression with special focus in problems related to the Public Health sciences. This is an introductory course that will expose students to these methods, and consolidate their understanding of statistical inference (estimation and testing of statistical hypotheses) in the context of the two procedures. The course will be taught in two sessions, a lecture, where the relevant theory and methods will be presented, and a practicum or laboratory session, involving hands-on analysis of real-life problems using the SAS statistical software package.

PBHL-B 642 Applied Survival Analysis for Public Health (3 cr.)

P: Students must have taken one course in basic statistics and another course in linear regression models. Students must have prior knowledge of SAS for completion of homework. The statistical methods covered in this course focus on "time to event" data, where the event can be response to treatment, relapse of disease, or death. Topics covered in this course include estimations of survival function and regression models for survival data. Specifically, this course covers the central functions of survival analysis: the hazard, survival, and cumulative hazard functions, nonparametric estimation of survival functions using life-table method and the Kaplan-Meier method, and comparison of survival distributions using the log-rank and other tests. In addition, we will discuss regression models for survival outcomes with emphasis on the Cox proportional hazards model. Alternative models such as the accelerated failure time model and use of parametric distributions (exponential, Weibull) will also be considered. Class material will include presentation of statistical methods for estimation and testing, along with current software (SAS) for implementing analyses of survival data. Applications to real data will be emphasized.

PBHL-B 644 Applied Generalized Linear Models and Longitudinal Data Analysis (3 cr.)

P: Students registering for this course are expected to have completed "Linear Models in Public Health" or its equivalents with a B or better grade. This is an introductory statistical method course on generalized linear models and longitudinal data analysis for students in various public health disciplines. The course focuses on the basic concepts and implementation of four extensions to classical linear regression models: (1) generalized linear models (including logistic and log-linear regression); (2) mixed effects models; (3) generalized linear mixed models; and (4) population average models based on generalized estimating equations (GEE).

PBHL-B 653 Applied Multivariate Statistical Methods (3 cr.)

P: P551 and P652. B653 is an introductory multivariate statistics course. This course is applied and is intended for non-statisticians, for example, masters or PhD students in behavioral, psychological, educational or medical sciences, or other health care professionals. Students are expected to have taken two previous courses in statistics (introductory and intermediate) covering up through t-test, ANOVA, ANCOVA and linear regression. The overall objective of the course is to introduce the most commonly used multivariate statistical techniques with emphasis on applications to real data which will be analyzed with SPSS. The emphasis will be on concepts, assumptions, applications, and hands-on interpretation of SPSS results. Formulas or matrix algebra will not be emphasized.

PBHL-E 715 Design and Implementation of Observational Studies (3 cr.)

P: P517 and Research Methods This course examines fundamental aspects of designing and implementing observational epidemiology studies. The focus is on developing strategies to increase the validity of the study results by using techniques to control for possible confounding factors and biases. Topics include sampling methods, sensitivity, data weighting, standardization, selection of cases and controls, matching, data collection and project management.

PBHL-E 720 Analysis and Interpretation of Observational Studies (3 cr.)

P: This course is designed for students in

the PhD program in Epidemiology. Advanced students in the Master of Public Health degree program, Epidemiology concentration may register for this course with the permission of the professor. P: PBHL-E 715 Design and Implementation of Observational Studies. This course examines fundamental aspects of analyzing data generated by observational epidemiology studies. The focus is on developing a solid understanding of contemporary analytical techniques to increase the validity of the study and control for possible confounding factors and biases.

PBHL-E 730 Analysis of Genetic Associations (3 cr.)

P: P601 (Advanced Epidemiology), P652 (Biostatistics for Public Health II), and P730 (Molecular and Genetic Epidemiology), or signature of instructor required. This course introduces the conceptual and practical tools needed for population-based genetic association studies among unrelated subjects. Lectures and selected readings present key issues (such as linkage disequilibrium, "tagging SNPs," haplotypes, population stratification and epistasis) and appropriate statistical methods. Students will be required to present selected papers in class. Students will gain hands-on experience with a range of analytic tools and software packages as part of a class project which gives them the opportunity to design and analyze an association study. This project will require students to work on real-world problems such as marker selection, potential multiple comparisons issues due to multiple markers and multiple outcomes, and missing data.

PBHL-E 731 Design and Analysis of Genetic Association Studies (3 cr.)

P: P601 (Advanced Epidemiology), P652 (Biostatistics for Public Health II), and P730 (Molecular and Genetic Epidemiology), or signature of instructor required. This course introduces the conceptual and practical tools needed for population-based genetic association studies among unrelated subjects. Lectures and selected readings present key issues (such as linkage disequilibrium, "tagging SNPs," haplotypes, population stratification and epistasis) and appropriate statistical methods. Students will be required to present selected papers in class. Students will gain hands-on experience with a range of analytic tools and software packages as part of a class project which gives them the opportunity to design and analyze an association study. This project will require students to work on real-world problems such as marker selection, potential multiple comparisons issues due to multiple markers and multiple outcomes, and missing data.

PBHL-E 750 Doctoral Topics in Public Health (3 cr.)

Courses offered under this course number would include PhD courses on topics expected to be offered only once, such as those taught by visiting faculty, and those that are newly developed and have not yet been assigned a specific course number. The course will focus on a specific topic or technique related to the field of Public Health. The material to be studied will be determined by the instructor with input from the PhD faculty.

PBHL-E 751 Doctoral Readings in Epidemiology (1-3 cr.)

This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Epidemiology. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop a strategy to

identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement

PBHL-E 752 Doctoral Research in Epidemiology (1-3 cr.)

This course is designed to allow PhD students the opportunity to explore research questions by collecting data or using existing data related to their field of study in Epidemiology. The study topic will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop the study protocol, obtain IRB approval if necessary, obtain the data and collect the planned data analysis. The time frame for completion and the nature of the study product will be determined by the PhD student, faculty member and advisor. Generally the product will be a manuscript for submission to an appropriate journal. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-E 765 Nutritional Epidemiology (3 cr.) P: P517 and P551

This course provides students with an overview of fundamental concepts and methods of nutritional epidemiology and the current state of knowledge on well-studied associations between diet and chronic diseases. Emphasis will be placed on the design, implementation, analysis, and interpretation of nutritional epidemiologic studies

PBHL-E 775 Doctoral Research Seminar in Epidemiology (1 cr.)

This course is designed to expose PhD students to a wide range of specific research topics and issues in Public Health. The seminar topics will be chosen by the Director of the PhD program with input from other faculty members. The PhD students are expected to attend each seminar session, read assigned material, and participate in the seminar discussions. The PhD students may be asked to present their research projects during the seminar to obtain feedback and recommendations from the faculty and other students.

PBHL-E 780 Pharmacoepidemiology (3 cr.) P: P517

This is an introductory pharmacoepidemiology course. Students will learn how principles of modern epidemiologic methods are used to evaluate the safety, effectiveness, and utilization patterns of medical products (drugs, vaccines, and medical devices) in human populations, with a focus on observational studies. Related topics, including therapeutic risk management, data sources and ethical principles will be discussed. Advanced methodology, such as that utilized to address confounding by indication and misclassification will be introduced.

PBHL-G 651 Introduction to Biostatistics I (3 cr.) P: One

year undergraduate mathematics is required. Working knowledge on linear algebra and elementary calculus is expected. Students with insufficient mathematics preparation are expected to remedy the deficiency on their own. G651 is an introductory level biostatistics course designed for healthcare professionals. This course will cover the topics

on data presentation techniques, describing data with numerical summary measures, probability and probability distributions, sampling distributions, statistical inferences from small and large samples, analysis of categorical data, analysis of variance, correlation and simple linear regression analysis.

PBHL-G 652 Introduction to Biostatistics II (3 cr.) P: G651

or equivalent G652 is an advanced biostatistics course designed for students with an interest in the health sciences. Students are expected to have completed at least one semester course of basic biostatistics. Knowledge of probability and probability distributions, concepts of estimation and hypothesis testing are assumed. Topics covered in this course include multiple linear regression, analysis of covariance, logistic regression, and survival analyses. Upon completion of the course, students are expected to understand the appropriate statistical models for various outcomes and be able to interpret results using statistical techniques covered in this course. Students are also expected to conduct simple analyses using SPSS on personal computers

PBHL-H 501 U.S. Health Care: Systems, Policies, and Ethical Challenges (3 cr.)

Study of health, illness, and disease trajectories and the systemic components that mold the health care system. Ideological paradigms predicting utilization and health behaviors are addressed, as are guidelines for ethical decision making and problem analysis. Formulation and implementation of organizational and governmental policies and their associated theoretical assumptions are addressed.

PBHL-H 507 Management of Individual and Group Behavior (3 cr.)

This course provides a conceptual framework for understanding behavior in the work environment by introducing concepts concerning effective management of people in organizations. Key theories and concepts in the field of organizational behavior will be introduced. The focus of this course is at the micro level of analysis, addressing topics such as individual theories of motivation, job design, and diversity issues; management of work teams; group decision making; managing conflict; and leadership, influence, and power issues.

PBHL-H 508 Managing Health Care Accounting Information for Decision-Making (3 cr.) P: undergraduate

principles of accounting. Provides a user-oriented understanding of how accounting information should be utilized, focusing on balance sheet and income statement and cash flow analysis, budgeting, cost analysis, and responsibility accounting.

PBHL-H 509 Financial Management Principles of Health Care (3 cr.) P: SPHA-H 508.

Provides knowledge of corporate finance practice in health care organizations. Establishes an understanding of the basic elements of financial theory used to address service expansion or contraction, capital investment issues, developing business plans and working capital management.

PBHL-H 514 Health Economics (3 cr.) P: 3 credit hours of

undergraduate economics. Examines the principles and application of economic analysis in the health field and the economist's approach to health care issues. Provides insights offered by economic analysis of specific health issues and problems.

PBHL-H 515 Seminar in Health Policy: Special Topics (3 cr.) P: SPHA H501, H503, or consent of instructor. Exploration of health policy topics from economic, financial, sociological, political, and psychological perspectives. Analytical paradigms are applied to organizational or macro-policy making issues that vary in response to changing environments. May be repeated once with advisor's approval.

PBHL-H 516 Health Services Delivery and the Law (3 cr.) Medical-legal concepts related to hospitals and other health services organizations. Course provides an in-depth understanding of the law and the legal processes affecting the health services system. Presentation of the elements of administrative and agency processes, torts, contracts, facilities, physicians, patients, and personnel.

PBHL-H 517 Managerial Epidemiology (3 cr.) Examines general epidemiologic methods such as population descriptive techniques, use of health indicators and secondary health-related data sources. Includes design, administration, and analysis of observational and experimental studies. Emphasis will be on the use of epidemiologic techniques to assess community health, determine community risk factors, and evaluate community-based programs.

PBHL-H 518 Statistical Methods for Health Services (3 cr.) P: 3 credit hours of undergraduate statistics. Study of the quantitative techniques commonly used to examine health-related data. Includes univariate, bivariate, and multivariate techniques. Emphasis is on using statistical techniques to make policy and administrative decisions in a health services setting. Students use standard computer software to analyze data.

PBHL-H 521 Management Science for Health Services Administration (3 cr.) Focus is on management science methods, as applied to health sciences administration. Includes treatment of decision theory, constrained optimization, and probability simulation.

PBHL-H 523 Health Services Human Resource Management (3 cr.) This course provides the knowledge and skills needed to understand the application of personnel and labor relations techniques to the health services sectors, with particular emphasis on human resources management, employees' benefit programs, and labor relations as applied to the health services delivery organization.

PBHL-H 606 Health Services Quality Improvement and Risk Management (3 cr.) P: H501, H503, and V504. Critically examines the concepts, strategies, and techniques related to the improvement of the quality of health service delivery. Addresses the increasing need to enhance productivity given the impact of external and other factors on the workplace. Principles and application of risk management concepts and techniques, including insurance, are emphasized.

PBHL-H 612 Marketing for Health Services Delivery (3 cr.) This course focuses on the marketing problems and strategies of health care organizations. Subjects include the nature of health care services, organizing for health service delivery, managing health services demand, tailoring customer mix, and managing supply in health care services.

PBHL-H 615 Health Care Outcomes and Decision Making (3 cr.) P: H501, H502, H514, and H518. Application of health outcomes measures in decision-making and evaluation in various health service settings. Includes designing and implementing evaluation plans of health and social programs. Emphasis on evaluation strategies, measurement of health outcomes, and management decision-making.

PBHL-H 623 Health Care Applications of Strategic Management (3 cr.) P: H501, H502, H510, and H521. This last course of the series in the capstone sequence is designed to assist students in synthesizing and summarizing all of the previous course work. Emphasis is on "real-world" case situations and requires active participation by the students. Case studies chosen reflect current management issues in health services administration.

PBHL-H 624 Developing Strategic Capability (3 cr.) This course explores management roles in health care. Application of strategic management theories, concepts and principles and an understanding of managerial roles in organizations are emphasized. Managerial process, management theories, leadership, organizational design, and strategic management are examined.

PBHL-H 628 Health Care Information Systems (3 cr.) A study of the terminology, technology, and application of information systems in various health care settings. Topics include the gathering, organization, storage, and retrieval of complex data banks, as well as assessment of health service data needs and considerations in developing information systems. Includes many computer-based exercises.

PBHL-H 702 Internship in Health Services Management (3 cr.) P: H501, H509, H514, and H650. Requires the equivalent of a minimum of 3 credit hours of on-site experience under the supervision of a qualified preceptor and program faculty. Grading is on an S/F basis.

PBHL-H 735 Research in Health Administration (3-6 cr.) P: all core courses or consent of instructor. Field research conducted under the direction of a faculty member. Designed for advanced students and those who have elected not to take a residency. Grading is on an S/F basis.

PBHL-H 746 Comparative Effectiveness Research Methods (3 cr.) P: P517 and P551 This course introduces the range of methods and associated political and ethical issues related to comparative effectiveness research in health and medicine, with a particular focus on developing quantitative skills to the design, review and analysis of clinical trials (e.g. drugs, devices, clinical or behavioral strategies). Students will learn quantitative methodologies that can be utilized to synthesize a range of evidence regarding the benefits and harms of available choices for care, and will explore the potential and limitations of comparative effectiveness findings for policy and health care decision making.

PBHL-H 775 Doctoral Readings in Health Policy and Management (1-3 cr.) This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Health Policy and Management. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with

the faculty member to develop a strategy to identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-H 775 Doctoral Research Seminar in Health Policy and Management (1-3 cr.) This course is designed to expose PhD students to a wide range of specific research topics and issues in Public Health. The seminar topics will be chosen by the Director of the PhD program with input from other faculty members. The PhD students are expected to attend each seminar session, read assigned material, and participate in the seminar discussions. The PhD students may be asked to present their research projects during the seminar to obtain feedback and recommendations from the faculty and other students.

PBHL-H 775 Doctoral Readings in Health Policy and Management (1-3 cr.) This course is designed to expose a PhD student to published material on a specific topic or technique related to their field of study in Health Policy and Management. The material to be studied will be determined primarily by the PhD student under the direction of a faculty member with input from the student's concentration advisor. The PhD student is expected to work closely with the faculty member to develop a strategy to identify the material to study, plan a time frame for completion of the study and to determine the nature of the study product. Generally the product will be a summary and interpretation of the material studied in a literature review format. The PhD student and faculty member will complete a written agreement, which outlines the scope of work for the semester. The concentration advisor will also sign this agreement.

PBHL-P 500 Social and Behavioral Science in Public Health (3 cr.) This course is designed to introduce students to the philosophies and principles that provide the foundation for health promotion and disease prevention with an emphasis on population-based public health approaches. Students will explore topics that promote a broader and better understanding of determinants of health; the multiple factors contributing to health and illness behaviors; fundamentals, theories and principles that shed light on health and illness behaviors; and philosophies, principles and strategies that facilitate improvements in population health and the elimination of health disparities. Students will be introduced to the important complementary relationships between and comingled effects of the determinants of health with an emphasis on the social determinants of health. Students will be presented with new approaches to improve, by not only focusing on individual capacities and capabilities to address their diseases and/or ailments, but also, most importantly perhaps, focus on the conditions and contexts in which individuals have the liberty and limits to make choices that influence health and illness behaviors in many different ways.

PBHL-P 500 Social and Behavioral Science in Public Health (3 cr.) This course is designed to introduce students to the philosophies and principles that provide the foundation for health promotion and disease prevention with an

emphasis on population-based public health approaches. Students will explore topics that promote a broader and better understanding of determinants of health; the multiple factors contributing to health and illness behaviors; fundamentals, theories and principles that shed light on health and illness behaviors; and philosophies, principles and strategies that facilitate improvements in population health and the elimination of health disparities. Students will be introduced to the important complementary relationships between and comingled effects of the determinants of health with an emphasis on the social determinants of health. Students will be presented with new approaches to improve, by not only focusing on individual capacities and capabilities to address their diseases and/or ailments, but also, most importantly perhaps, focus on the conditions and contexts in which individuals have the liberty and limits to make choices that influence health and illness behaviors in many different ways.

PBHL-P 504 U.S. Health Care Systems and Health Policy (3 cr.) This course explores the U.S. health care system, policy development, and ethical challenges. It examines the structure, components, organization and financing of the U.S. health care system. The policy process at national, state and local levels will be analyzed using legislation and related activities.

PBHL-P 517 Fundamentals of Epidemiology (3 cr.) This course will introduce students to basic epidemiologic concepts including determinants of health and patterns of disease in populations, population health descriptive techniques, use of health indicators and secondary data sources. Students will gain an understanding of the role of Epidemiology in developing prevention strategies and policy. Among the topics to be covered are measures of mortality and morbidity, design and analysis of observational studies, community health assessment and program evaluation.

PBHL-P 519 Environmental Science in Public Health (3 cr.) The primary focus of this course will be on pathogenic agents (biological, chemical, and physical) in the environment and their impact on morbidity and mortality of human populations. We will study several types of common and emerging pathogens from anthropogenic and natural sources and how they cause illness and/or injury. Particular attention will be given to the mode of transmission, route of exposure, and acute and chronic diseases or injuries caused by these environmental agents. During the class we will also investigate the strategies, technologies and laws/policies that are used to prevent, control, or eliminate environmental hazards.

PBHL-P 551 Biostatistics for Public Health I (3 cr.) This course introduces the basic principles and methods of data analysis in public health biostatistics. Emphasis is placed on public health examples as they relate to concepts such as sampling, study design, descriptive statistics, probability, statistical distributions, estimation, hypothesis testing, chi-square tests, t-tests, analysis of variance, linear regression and correlation.

PBHL-P 600 Epidemiologic Research Methods (3 cr.) P: P517 and P551. This course provides an in-depth presentation of the major research designs, analytical methods, and practical issues specifically related to conducting research in the field of epidemiology, outcomes

research, and health economics. Descriptive, observational and experimental designs are included. In addition, issues of ethics, protocol, data quality, instrument design, and analysis are covered.

PBHL-P 601 Advanced Epidemiology (3 cr.) P: P517 & P551 (or concurrently enrolled). This course provides students with an in-depth understanding of advanced epidemiologic concepts introduced in other courses as well as a fundamental understanding of epidemiologic techniques not covered in other classes. Topics included will represent cutting edge techniques, philosophical issues and insights to appropriately conduct and interpret the findings of epidemiological studies. Students will gain an understanding of these concepts and issues through discussions with expert epidemiologists and hands-on exercises.

PBHL-P 602 Public Health Internship (3 cr.) P: MPH core and approval of concentration advisor. Integrates public health theory and practice in a practice setting. Students have the opportunity to apply concepts from core and concentration courses, conduct projects and interact with a range of health professionals. Students work both with a faculty advisor and qualified preceptor in the agency.

PBHL-P 609 Infections Disease Epidemiology (3 cr.) P: P517. This course is designed to provide a basic overview of the infectious disease process, including disease agents, transmission routes, immunity and public health significance. The course introduces principles of infectious disease epidemiology, including outbreak investigation and surveillance, using case studies as examples. Concepts on globalization of disease, microbial ecology, and disease eradication also are discussed.

PBHL-P 610 Chronic Disease Epidemiology (3 cr.) P: P517. This course examines chronic health conditions from epidemiological perspectives. Concepts include distribution, determinants; diagnosis; measures of severity; treatment modalities; surveillance measures; survival and prognosis; and quality of care measures. Research methods prevention strategies and screening tests are presented. Clinical expert's present diagnosis and treatment methods.

PBHL-P 611 Policy Design, Implementation and Management (3 cr.) This course will examine the reasons for this in terms of the politics of health and the implications for the future of health policy in the United States. Further, health policy topics from economic, financial, sociological, political and psychological perspectives will be covered. Analytical paradigms are applied to organizational or macro-policy making issues. Topics vary by semester according to current policy challenges faced at the federal level.

PBHL-P 612 Health Outcomes Research (3 cr.) P: P517 & P551. This web-based course is evidence-based and focused on health outcomes research in contemporary health care. The different types of health outcomes assessment tools and their application in determining patient health status, changes in health status, and the effectiveness of health care interventions will be addressed. The course will focus on generic and specific health related outcomes assessment tools, looking at such issues as disease specific outcomes and patient satisfaction.

PBHL-P 613 Public Health and Emergency Preparedness (3 cr.) This graduate elective course is designed to familiarize learners with emergency preparedness concepts due to natural and man-made disasters. The course will also review biological agents used for terrorism in the past, and agents the Centers for Disease Control consider most likely to be used at present. The content will be delivered via, seminar discussion, web based activities, CDs addressing bioterrorism, resources for infection control and key resources for further exploration. Other student opportunities include readings from past great works depicting responses to naturally occurring infectious disease or contemporary responses to disasters and terrorism/bioterrorism. Public health responses to emergency preparedness at local, state and federal levels will also be discussed.

PBHL-P 614 Program Planning in Public Health (3 cr.) This course will provide students with a systematic approach to program planning and evaluation of health programs. Students will apply program planning, implementation and evaluation theory to develop an evidence-based health promotion program that addresses a public health issue of personal interest.

PBHL-P 615 Culture and Qualitative Methods (3 cr.) This course provides learning opportunities for public health graduate students to develop an understanding of culture and of how qualitative methods can be used to develop a sensitivity to and an understanding of cultural practices. Such cultural sensitivities and competencies are basic to effective program planning, implementation, service delivery, and program evaluation. This class will provide important knowledge and opportunities related to public health practice in a community setting comprised of a multicultural population with differing health beliefs, values, behaviors and health care needs. By the end of the semester, the student will be able to define and distinguish the concepts of culture and traditions, acculturation and enculturation, traditionalism and modernism and will be able to begin to identify how to build on cultural practices to develop interventions aimed at influencing health behaviors. Further, the student will have active experience in conducting qualitative research in a community setting, including skills in conducting windshield surveys, participant observations, key informant interviews, and focus groups.

PBHL-P 616 Strategic Planning for Health Services Organizations (3 cr.) This courses aims to develop the student's knowledge and ability in strategic management in health services organizations. Based on an introduction to the general process model of strategic management, the course will engage in detailed discussions of a series of topics in strategic management. These topics include the identification of the organization's mission, vision, and values, the analysis of the external and internal environment of the organization, the identification of strategic challenges and opportunities, the development of strategies, the evaluation of strategies, the communication of strategies, and the development and evaluation of an action plan. The course emphasizes the unique strategic challenges facing health services organizations and their leadership, and aims to develop accordingly the student's ability to identify, analyze and address these challenges. The course utilizes real-world cases to facilitate the understanding of basic course content. The conceptual model of strategic management will be illustrated through the analysis of selected health care cases.

The student will also be required to independently analyze a strategic case most relevant to their field of work or study applying the conceptual strategic planning process.

PBHL-P 618 Cancer Epidemiology (3 cr.) P: P517 This course is an overview of cancer epidemiology, focusing on key concepts, etiologic research, applications to public health practice and major epidemiologic methods. This course is designed for students who have an interest in epidemiology.

PBHL-P 619 Health Economics for Public Health Professionals (3 cr.) This is an introductory microeconomics course with applications to the public health and health care systems. The course objectives are that the students develop an appreciation of economic theories and principles, exacting assumptions thereof, and how these theories and principles apply to the public health and health care markets, particularly how price drives resource allocation in addition to signaling value, substitution and technological innovation. Students will also be introduced to skills need to measure and interpret economic values and relationships including the interpretation of quantitative data analysis. We will examine how economic incentives affect the different actors in the health (care) system. The fundamental models of economic and organizational behaviors will be extended to describe the behaviors of the different health care players and the health (care) system as each tries to maximize utility and profits (or min costs), respectively, under different financial, regulatory and technological constraints. Most importantly, students will be able to explore the limits to markets and rationality, and develop an appreciation for how a variety of checks and balances-more so that unbridled competition-contribute to efficient and equitable functioning of and outcomes in a market.

PBHL-P 631 Maternal, Child, and Family Health (3 cr.) Overview of Maternal Child health with emphasis on conditions and issues effecting reproductive, childhood, and women's wellbeing. Includes classroom lecture, discussion, and student presentations.

PBHL-P 632 History of Public Health (3 cr.) This course surveys the history of public health from antiquity to the late twentieth century with the aim of providing students with an understanding of how history may inform present day challenges regarding the health of populations, including emerging infectious diseases; climate change; dislocation of populations from conflicts and natural disasters; malnutrition; and chronic diseases in aging populations. Using a chronological and thematic approach to history, students will learn of the origins, natural histories, and important determinants of the structure and function of modern systems of public health in the United States. The course will explore the complex interactions within populations of disease, science, social and cultural norms, moral/ethical values, economic and legal precepts, health professionals, institutions, and government in shaping the rate of adoption and diffusion of public health systems. The course will use a readings/discussion format with limited didactic teaching and an emphasis on active learning. Each week students will read 4-7 papers and be prepared to discuss them in class. Important goals of the course are to stimulate interest in the history of public health, learn about the methods and tools used in historical research, and promote critical thinking.

PBHL-P 644 Health Impact Assessment (3 cr.) The goal of this course is to introduce students to the theoretical and practical aspects of health impact assessment (HIA) as a methodological tool in public health. HIA utilizes a variety of qualitative and quantitative methods and tools, designed to assess the potential health effects of a public policy, program, project, or initiative. While HIA is still an emerging practice in the United States, in Europe, Canada, and other areas of the world, the assessment of the public health impact of public decisions have been performed regularly to support policy decisions and promote conditions required for optimal health. During the first part of the semester, students will learn the necessary steps to conduct an HIA, review national and international case studies, and discuss how findings may or may not impact policy making. During the second half of the course, students will work in teams with a local or state health department to examine the potential health impact of policy proposals in Indiana.

PBHL-P 650 Readings in Public Health (3 cr.) This course is designed to expose the student to different readings in public health. The course will allow the student to apply skills learned in the public health core courses by collecting data and applying techniques. The student will be required to read critically published papers and identify research topics.

PBHL-P 650 Readings in Public Health Topic: Health Communication (3 cr.) Effectively communicating health messages to the public can be a challenge. From advertising a program to promoting behavior change, there are many tools and actions that can yield positive results. This course will offer theory and practical experiences through the steps of creating a communications plan and actual campaign. Case studies, guest speakers, and hands-on experiences will be blended together.

PBHL-P 652 Biostatistics for Public Health II (3 cr.) P: P551. This course introduces the advanced principles and methods of data analysis in public health biostatistics. Emphasis is placed on public health examples as they relate to concepts such as: Multiple regression, analysis of variance and covariance, logistic regression, nonparametric statistics, survival analysis, statistics used in epidemiology, and repeated measures analysis.

PBHL-P 655 Historical Evolution of Epidemiology (3 cr.) P: P517. The course will explore the historical developments and public health responses to human disease morbidity and mortality, and their importance and influence on the role of public health in modern society. Readings and discussion will examine in detail, the evolutionary change in the epidemiologic response of a Variety of disease of national and international importance.

PBHL-P 657 Application of Cost-Effectiveness Analysis in Public Health (3 cr.) Cost-effectiveness analysis is widely used in evaluating the performance of public health programs and policies. In this course, students will learn to frame the conceptual model, to collect and synthesize data regarding "cost" and "effectiveness", to perform a cost-effectiveness analysis, and to form recommendations based on the analysis. Meta-analysis and various survey/interview techniques will be introduced as essential tools for data collection in cost-effectiveness analyses. Learning will be facilitated by numerous examples of the application of this popular method. Health Policy and Management students have option of taking this course in place of H509.

PBHL-P 658 Methods of Health Services and Policy Research (3 cr.) This is a required course for students in the Health Policy and Management concentration. It aims to familiarize students with the methods of health services research and policy research. It introduces various study designs, data collection methods, and data analysis techniques that are relevant to students and researchers in these fields. It discusses the ethical, legal and political implications of health services and policy research. Students will apply theoretical knowledge in the analysis of actual data. This course also aims to facilitate the development of student's final concentration project.

PBHL-P 659 The Tobacco Pandemic (3 cr.) This course focuses on U.S. and global Tobacco Control, including the health and economic burdens of tobacco use as well as evidence-based approaches to prevention and management. Students will explore how human use of the plant *Nicotiana tabacum* with its potent alkaloid, nicotine, evolved into the largest human made pandemic in world history. The nature, prevalence, and trends of tobacco addiction, tobacco-related diseases, and their treatment will be addressed, as well as the centuries long "tobacco wars," pitting the tobacco industry's effective marketing of their products against the often fragmented, underfunded, and ineffectual government and anti-tobacco forces. Students will review the rise, over the past 50 years, of effective science and evidence-based tobacco control policy in the U.S.: U.S. Surgeons General Reports; CDC Best Practices for Comprehensive Tobacco Control Programs; U.S. PHS Clinical Practice Guidelines: Treating Tobacco Use and Dependence, and related sources. The future of Tobacco Control, including various scenarios for the "end game" of tobacco use in modern societies will be addressed, in light of recent major legal, political, and economic changes in the landscape of Tobacco Control in the U.S and globally.

PBHL-P 670 Topics in Public Health (3 cr.) This course has a variable title and can be offered for variable credits. Similar to topics courses offered in other IUPUI programs, this course offers an introduction to a variety of public health topics and current issues will be covered in this course.

PBHL-P 670 Advanced Public Health Survey Research (3 cr.) This course provides an intensive focus on the formative phases of health survey research. Topics covered will include sampling methodologies, questionnaire development, testing, revision and administration, interviewing, coding procedures, as well as topical discussions related to research ethics and real world challenges of research. Active learning will be emphasized through several field based exercises, as well as a research proposal based on students' own research interests.

PBHL-P 670 Applied Public Health Campaigns and Social Marketing Strategies (3 cr.) Effectively communicating public health messages can be a challenge. From advertising a program to promoting behavior change, there are many social marketing strategies and tools that yield positive results. This course will offer students practical opportunities to apply these strategies and tools in the development and evaluation of public health campaigns. Case studies, guest speakers, and hands-on experiences will be incorporated in this class.

PBHL-P 670 Cardiovascular Epidemiology (3 cr.) P: P517 and P601 An advanced graduate course that discusses the

topics related to the epidemiology and prevention diseases. The purpose is to give students an overview of the major cardiovascular diseases and their risk factors.

PBHL-P 670 Global Perspectives of Health Policy and Health Systems (3 cr.) This 3 hour course is designed to expand students' perspectives on global health care through the in-depth study of health care and health systems that are distinct from the U.S. health care system. Students also will learn how health policy and management research apply the comparative method in the study of health systems and health policy. Finally, students will explore health policy as a global challenge through a systematic discussion of international health policymaking and responses to health problems requiring global or regional nation-level cooperation.

PBHL-P 700 Concentration Project Completion (1 cr.) This course is designed for MPH students who are working on their Final Concentration Project until project grade has been assigned. Enrollment in PBHL-P700 allows students access to the library, computer labs, IRB, other campus facilities/services and to meet with academic advisors. In addition it allows students to retain eligibility for financial aid and loan deferment. Students enrolled in 45 credit hours are eligible to enroll in P700.

PBHL-P 701 Public Health Biostatistics Concentration Final Project (3 cr.) P: MPH Core; Public Health Internship.

PBHL-P 702 Public Health Social and Behavioral Science Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge through course work and the public health internship. Student projects will include components of behavioral health sciences research and application.

PBHL-P 703 Environmental Science Concentration Final Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge acquired through coursework and the public health internship. Student projects will include components of environmental science analysis, research, and application

PBHL-P 704 Public Health Epidemiology Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Students synthesize and integrate knowledge acquired through course work and the public health internship by conducting an epidemiological study. Satisfactory projects include epidemiological research that involves protocol development, data collection and analysis and presentation of an oral presentation and written report.

PBHL-P 705 Public Health Policy and Management Concentration Project (3 cr.) P: MPH Core; Public Health Internship. Provides students the opportunity to synthesize and integrate knowledge acquired through coursework and the public health internship. Student projects will include components of health policy analysis or management research and application.

PBHL-R 515 Sociology of Health and Illness (3 cr.) This course will acquaint students with the theoretical and empirical foundations of the sociology of health and illness, as well as exposing him/her to the important theoretical and empirical research done by sociologists of health and illness . R515 uses sociological perspectives and sociological research techniques to investigate the social and behavioral

phenomena associated with health, disease, and health care. The field deals with quite a broad range of topics, including (but not limited to): social influences on the distribution of disease, the influence of inequality on health, the impact of culture on symptom recognition and help seeking, the relation of medicine to institutions of social control, the distinctive characteristics of medicine as a type of work, cost containment issues, the impact of economic factors on the distribution and organization of health care, the implications an aging population has for the provision of health care in the United States, and a consideration of the ethical issues raised by modern biomedicine, etc.

PBHL-S 658 Methods for Research on Social and Behavioral Dimensions of Public Health (3 cr.) This course will train students in basic research methods used by social and behavioral scientists in the public health arena. Through lectures, labs, individual and group activities, students will learn how to read empirical research and evaluate its quality in order to become good consumers of existing research. Students will also learn to produce quality research through an understanding of theoretical foundations, research design and the basics of measurement theory.

Undergraduate Courses

PBHL-A 316 Environmental Health Science (3 cr.) A study of human interaction with the environment and potential impacts of environmental agents on health and safety. Hazards from natural sources and human activities that contaminate our air, land, water, food, homes, neighborhoods, and workplaces are examined. Environmental control activities, including pollution control technology and policy, are also examined.

PBHL-A 322 Principles of Epidemiology (3 cr.) A basic overview of epidemiologic methodology and techniques. Both communicable and chronic disease risk factors will be discussed, along with data acquisition, analysis techniques, and current published epidemiological studies.

PBHL-A 367 Environmental Science and Health Practicum (2 cr.) P: PBHL-A316 The Environmental Science and Health Practicum will consist of a personal career-planning component coupled with a weekly field visit to environmental science and health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 367 Health Services Management Practicum (2 cr.) P: PBHL-H320 and Junior Standing The Health Services Management Practicum will consist of a personal career-planning component coupled with weekly field visits to health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-A 380 Environmental Health Science Internship (3 cr.) P: Permission of Instructor. Open to interested students upon approval of the faculty. Students are placed with governmental agencies or private and not-for-profit organizations or governmental units for assignment to a defined task relevant to their educational interests in environmental health science. Tasks may involve staff work or research. May be repeated for credit. Course is graded S/F (Satisfactory/Fail).

PBHL-A 410 Introduction to Environmental Toxicology (3 cr.) Study of toxic mechanisms, pathology, and disease development resulting from exposure to biological and chemical agents in the environment.

PBHL-A 416 Environmental Health Policy (3 cr.) Study of professional requirements and duties of the environmental health functions within health agencies; consideration of applicable laws and standards in each environmental health function; environmental health program planning, evaluation, implementation, and personnel responsibilities.

PBHL-A 424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.) P: PBHL-A316; MATH 153. Technology approach to preventing the transmission of disease among humans through water and wastes. Course focuses on drinking water treatment and distribution, water quality and pollution, wastewater treatment, storm water management, municipal solid waste, and hazardous waste management.

PBHL-A 428 Food Science and Sanitation (3 cr.) Basic concepts of food technology with emphasis on methods and procedures in food processing to minimize contamination and to prevent food-related illness. Federal, state, and local food laws and inspection procedures will be examined.

PBHL-A 433 Industrial Hygiene (3 cr.) Survey of the technical and regulatory aspects of protecting the health and safety of workers. Topics include basic toxicology; skin, eye, and respiratory hazards; measuring hazardous atmospheres; ventilation systems; fire and explosion hazards; emergency response; occupational hearing loss; radiation; prevention of accidents; cumulative trauma; and personal protective equipment.

PBHL-A 451 Air Pollution in the Community (3 cr.) A survey course covering the chemistry, transport, and fate of air pollutants related to current issues of air quality, such as photochemical smog, ozone depletion, particulate matter, and indoor air quality. Topics include the types, sources, health and environmental effects, measurement, evaluation, control, regulation, and modeling of air pollution concentrations.

PBHL-A 459 Environmental Science and Health Data Analysis (3 cr.) P: PBHL-A316; SPEA0-K300; 1 semester of chemistry. Provides students with an understanding of basic principles needed to perform sampling and analysis of field and laboratory environmental data. Topics include properties of chemical and biological constituents, detection limits, calibration, quality control, precision accuracy, and statistical analysis.

PBHL-A 460 Environmental Science and Health Data Analysis (3 cr.) P: PBHL-A459. Basic physical, chemical, and biological examinations and standards for potable water quality, wastewater treatment determinations, and stream pollution control. Basic physical, chemical, and biological (ergonomic) examinations used in industrial hygiene and air pollution control. Instruction in basic laboratory skills and techniques for performing these examinations.

PBHL-A 466 Public Health Field Experience (1-3 cr.) Supervised advanced training in professional and technical functions in public health; guided student activity and performance in professional public health functions.

Individualized programs may be arranged to suit students' areas of concentration.

PBHL-B 300 Introduction to Biostatistics (3 cr.)

P: MATH-M118 This is an introductory survey of statistical reasoning and analysis. Additionally, students should have a working knowledge of personal computers and the Windows operating environment

PBHL-H 120 Contemporary Health Issues (1-3 cr.) An examination of current public health, environmental health, and health service delivery issues in the U.S. Topics include the organization and costs of health systems, access to care, and the interrelationships between risk factors and health; also, environmental challenges facing our society and their impact on health.

PBHL-H 126 Introduction to Careers in Health Care (1 cr.) Introduces students to different careers and opportunities in the field of health care administration.

PBHL-H 200 Health Care Accounting (3 cr.) Course will provide students with a foundation in health care accounting from long-term care to acute care. The topics covered will include balancing sheet or statement of financial position, income statement or statement of revenue and expenses, journals, ledgers, trial balances and discrimination of formatting financial statements between acute care and long-term care organizations.

PBHL-H 320 Health Systems Administration (3 cr.) An overview of the U.S. health care delivery system. It examines the organization, function, and role of the system; current system problems; and alternative systems or solutions.

PBHL-H 352 Health Finance and Budgeting (3 cr.) P: BUS-A 200 or BUS-A 201. A study of the financial management of health care facilities based on generally accepted business principles. Accounting and managerial control of cash, accounts receivable, inventory control, budgeting, and cost control, as well as accounting and evaluation of short- and long-term debt will be examined.

PBHL-H 353 Advanced Health Finance and Budgeting (3 cr.) P: H352. This course builds upon H352 Health Finance and Budgeting as well as examines the uses of contractual language and obligations. It uses a series of case studies to apply techniques and principles taught in PBHL-H 352.

PBHL-H 354 Health Care Economics (3 cr.) This course applies economics to the study of administrative and policy issues in the health care sector. Economic concepts are used to explain the system of health care financing and the organization of health care delivery in the U.S. The economic evaluation of health care programs is also discussed.

PBHL-H 365 Health Services Practicum (2 cr.)

P: PBHL-H320; junior standing The Health Services Practicum will consist of a personal career-planning component coupled with weekly field visits to health care agencies in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 367 Health Services Management Practicum (2 cr.) P: PBHL-H320 and Junior Standing The Health Services Management Practicum will consist of a personal

career-planning component coupled with weekly field visits to health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 380 Health Services Management Internship (1-6 cr.)

P: Permission of Instructor. Open to interested students upon approval of the faculty. Students are placed with governmental agencies or private and not-for-profit and organizations for assignment to a defined task relevant to their educational interests in health services management. Tasks may involve staff work or research. May be repeated for credit. Course is graded S/F (Satisfactory/Fail).

PBHL-H 401 Strategic Planning for Health Care Organizations (3 cr.)

This course examines strategic planning techniques as they apply to health care organizations. Students will develop and defend a comprehensive strategic plan for a case facility. One half of the course will be conducted in a workshop format.

PBHL-H 411 Chronic Long-Term Care Administration (3 cr.)

Administering programs across the continuum of care including nursing homes, hospice, home health, and assisted living; Medicare and Medicaid financing; quality improvement; care management; and needs of special populations, particularly, vulnerable elders.

PBHL-H 420 Health Policy (3 cr.)

P: H320. This course will focus on current health policy issues within the context of the U.S. health care system. The course will familiarize students with the political environment of public policy, introduce major health care policy perspectives, and apply those analytical models to a series of health policy issues.

PBHL-H 432 Health Care Marketing (3 cr.)

A practical study of marketing in health care institutions, health service organizations, and health insurers. A basic foundation in marketing principles, new methods in marketing products and services, and inexpensive marketing techniques will be examined.

PBHL-H 441 Legal Aspects of Health Care Administration (3 cr.)

An overview of the liability and legal responsibility, as well as legal recourse, that health care facilities may exercise. This course will discuss policies and standards relating to health facility administration. Also included is a discussion of financial aspects unique to the hospital/health care facility environment, such as third-party payments and federal assistance.

PBHL-H 455 Topics in Public Health (1-3 cr.)

Extensive discussion of selected topics in public health. The topic may change from semester to semester, based on resource availability and student demand. May be repeated for credit.

PBHL-H 472 Applied Health Care Administration (3 cr.)

P: PBHL-H320 and Senior Standing. This course is a study of the complexities of multi-institutional arrangements and integrated services in the U.S. health care industry. The focus is on applying management skills to, and making comparisons of, the current driving forces among health care delivery system components.

PBHL-H 474 Health Administration Ethics Seminar (3 cr.)

P: PBHL-H320 and Senior Standing. This course examines healthcare ethical decision making challenges from managerial perspective and explores broader policy issues

associated with ethical problems in healthcare institutions. It provides an overview of general theories of ethical decision-making and through case studies, debates and research examines ethical challenges in everyday managerial activities.

PBHL-P 100 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 101 Disease, Disaster and Disparities (3 cr.) This undergraduate course will expose upper division students to a variety of public health topics including epidemiology, environmental and occupational health, social and behavioral sciences, public health preparedness, health policy and management. Guest speakers will introduce students to the various roles and functions of public health science and practice.

PBHL-P 120 Careers in Public Health (3 cr.) This undergraduate course will expose students to a variety of public health careers. Students will hear from public health professionals who hold a variety of positions in epidemiology, environmental and occupational health, social and behavioral sciences, public health preparedness, biostatistics, maternal-child-family health, chronic and infectious disease prevention, and health policy and management. Professionals from the private and public sectors will introduce students to the many careers in public health and to the various roles and functions of public health professionals. The course will focus on careers at all levels of education; bachelor's degree, master's degree and doctoral degree levels.

PBHL-P 200 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 300 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 300 Global Public Health (3 cr.) All public health is global in today's world. This course will explore the key global public health issues that face countries in the world with higher, middle, and lower income resources. The health policy issues that affect public health outcomes in various political, cultural, and economic environments will be analyzed. New, innovative solutions to global public health problems will also be discussed.

PBHL-P 300 Sex, Drugs & Homelessness Public Health & High Risk Behavior (3 cr.) Some individuals and groups are more likely to engage in high-risk health behaviors than others, which is costly to them and society. This class will focus on health risk related to sexual behavior, drug use, and homelessness.

PBHL-P 300 This Stress is Killing Me: Stress and Its Effect on You (3 cr.) This course will examine what stress is, where it comes from, its effects on health and what you can do about it.

PBHL-P 400 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics and issues.

Undergraduate Courses

The abbreviation "P" refers to course prerequisites and "R" to recommended prerequisite courses. Prerequisites can be waived by the instructor of the course. The number of hours of credit is indicated in parentheses following the course title.

Courses are listed in three groups: environmental health science, health services management, and public health.

PBHL-A 316 Environmental Health Science (3 cr.) A study of human interaction with the environment and potential impacts of environmental agents on health and safety. Hazards from natural sources and human activities that contaminate our air, land, water, food, homes, neighborhoods, and workplaces are examined. Environmental control activities, including pollution control technology and policy, are also examined.

PBHL-A 322 Principles of Epidemiology (3 cr.) A basic overview of epidemiologic methodology and techniques. Both communicable and chronic disease risk factors will be discussed, along with data acquisition, analysis techniques, and current published epidemiological studies.

PBHL-A 367 Environmental Science and Health Practicum (2 cr.) P: PBHL-A316 The Environmental Science and Health Practicum will consist of a personal career-planning component coupled with a weekly field visit to environmental science and health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 367 Health Services Management Practicum (2 cr.) P: PBHL-H320 and Junior Standing The Health Services Management Practicum will consist of a personal career-planning component coupled with weekly field visits to health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-A 380 Environmental Health Science Internship (3 cr.) P: Permission of Instructor. Open to interested students upon approval of the faculty. Students are placed with governmental agencies or private and not-for-profit organizations or governmental units for assignment to a defined task relevant to their educational interests in environmental health science. Tasks may involve staff work or research. May be repeated for credit. Course is graded S/F (Satisfactory/Fail).

PBHL-A 410 Introduction to Environmental Toxicology (3 cr.) Study of toxic mechanisms, pathology, and disease development resulting from exposure to biological and chemical agents in the environment.

PBHL-A 416 Environmental Health Policy (3 cr.) Study of professional requirements and duties of the environmental health functions within health agencies; consideration of applicable laws and standards in each environmental health function; environmental health program planning, evaluation, implementation, and personnel responsibilities.

PBHL-A 424 Environmental Health Science Technology: Managing Water and Wastes (3 cr.) P: PBHL-A316; MATH 153. Technology approach to preventing the transmission of disease among humans through water and wastes. Course focuses on drinking water treatment and distribution, water quality and pollution, wastewater treatment, storm water management, municipal solid waste, and hazardous waste management.

PBHL-A 428 Food Science and Sanitation (3 cr.) Basic concepts of food technology with emphasis on methods and procedures in food processing to minimize contamination

and to prevent food-related illness. Federal, state, and local food laws and inspection procedures will be examined.

PBHL-A 433 Industrial Hygiene (3 cr.) Survey of the technical and regulatory aspects of protecting the health and safety of workers. Topics include basic toxicology; skin, eye, and respiratory hazards; measuring hazardous atmospheres; ventilation systems; fire and explosion hazards; emergency response; occupational hearing loss; radiation; prevention of accidents; cumulative trauma; and personal protective equipment.

PBHL-A 451 Air Pollution in the Community (3 cr.) A survey course covering the chemistry, transport, and fate of air pollutants related to current issues of air quality, such as photochemical smog, ozone depletion, particulate matter, and indoor air quality. Topics include the types, sources, health and environmental effects, measurement, evaluation, control, regulation, and modeling of air pollution concentrations.

PBHL-A 459 Environmental Science and Health Data Analysis (3 cr.) P: PBHL-A316; SPEA0-K300; 1 semester of chemistry. Provides students with an understanding of basic principles needed to perform sampling and analysis of field and laboratory environmental data. Topics include properties of chemical and biological constituents, detection limits, calibration, quality control, precision accuracy, and statistical analysis.

PBHL-A 460 Environmental Science and Health Data Analysis (3 cr.) P: PBHL-A459. Basic physical, chemical, and biological examinations and standards for potable water quality, wastewater treatment determinations, and stream pollution control. Basic physical, chemical, and biological (ergonomic) examinations used in industrial hygiene and air pollution control. Instruction in basic laboratory skills and techniques for performing these examinations.

PBHL-A 466 Public Health Field Experience (1-3 cr.) Supervised advanced training in professional and technical functions in public health; guided student activity and performance in professional public health functions. Individualized programs may be arranged to suit students' areas of concentration.

PBHL-B 300 Introduction to Biostatistics (3 cr.)
P: MATH-M118 This is an introductory survey of statistical reasoning and analysis. Additionally, students should have a working knowledge of personal computers and the Windows operating environment

PBHL-H 120 Contemporary Health Issues (1-3 cr.) An examination of current public health, environmental health, and health service delivery issues in the U.S. Topics include the organization and costs of health systems, access to care, and the interrelationships between risk factors and health; also, environmental challenges facing our society and their impact on health.

PBHL-H 126 Introduction to Careers in Health Care (1 cr.) Introduces students to different careers and opportunities in the field of health care administration.

PBHL-H 200 Health Care Accounting (3 cr.) Course will provide students with a foundation in health care accounting from long-term care to acute care. The topics covered will include balancing sheet or statement of financial position,

income statement or statement of revenue and expenses, journals, ledgers, trial balances and discrimination of formatting financial statements between acute care and long-term care organizations.

PBHL-H 320 Health Systems Administration (3 cr.) An overview of the U.S. health care delivery system. It examines the organization, function, and role of the system; current system problems; and alternative systems or solutions.

PBHL-H 352 Health Finance and Budgeting (3 cr.) P: BUS-A 200 or BUS-A 201. A study of the financial management of health care facilities based on generally accepted business principles. Accounting and managerial control of cash, accounts receivable, inventory control, budgeting, and cost control, as well as accounting and evaluation of short- and long-term debt will be examined.

PBHL-H 353 Advanced Health Finance and Budgeting (3 cr.) P: H352. This course builds upon H352 Health Finance and Budgeting as well as examines the uses of contractual language and obligations. It uses a series of case studies to apply techniques and principles taught in PBHL-H 352.

PBHL-H 354 Health Care Economics (3 cr.) This course applies economics to the study of administrative and policy issues in the health care sector. Economic concepts are used to explain the system of health care financing and the organization of health care delivery in the U.S. The economic evaluation of health care programs is also discussed.

PBHL-H 365 Health Services Practicum (2 cr.)
P: PBHL-H320; junior standing The Health Services Practicum will consist of a personal career-planning component coupled with weekly field visits to health care agencies in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 367 Health Services Management Practicum (2 cr.) P: PBHL-H320 and Junior Standing The Health Services Management Practicum will consist of a personal career-planning component coupled with weekly field visits to health-related organizations in central Indiana. Students must perform satisfactorily in both parts of the practicum to receive a passing grade.

PBHL-H 380 Health Services Management Internship (1-6 cr.) P: Permission of Instructor. Open to interested students upon approval of the faculty. Students are placed with governmental agencies or private and not-for-profit and organizations for assignment to a defined task relevant to their educational interests in health services management. Tasks may involve staff work or research. May be repeated for credit. Course is graded S/F (Satisfactory/Fail).

PBHL-H 401 Strategic Planning for Health Care Organizations (3 cr.) This course examines strategic planning techniques as they apply to health care organizations. Students will develop and defend a comprehensive strategic plan for a case facility. One half of the course will be conducted in a workshop format.

PBHL-H 411 Chronic Long-Term Care Administration (3 cr.) Administering programs across the continuum of care including nursing homes, hospice, home health, and assisted living; Medicare and Medicaid financing; quality improvement;

care management; and needs of special populations, particularly, vulnerable elders.

PBHL-H 420 Health Policy (3 cr.) P: H320. This course will focus on current health policy issues within the context of the U.S. health care system. The course will familiarize students with the political environment of public policy, introduce major health care policy perspectives, and apply those analytical models to a series of health policy issues.

PBHL-H 432 Health Care Marketing (3 cr.) A practical study of marketing in health care institutions, health service organizations, and health insurers. A basic foundation in marketing principles, new methods in marketing products and services, and inexpensive marketing techniques will be examined.

PBHL-H 441 Legal Aspects of Health Care Administration (3 cr.) An overview of the liability and legal responsibility, as well as legal recourse, that health care facilities may exercise. This course will discuss policies and standards relating to health facility administration. Also included is a discussion of financial aspects unique to the hospital/health care facility environment, such as third-party payments and federal assistance.

PBHL-H 455 Topics in Public Health (1-3 cr.) Extensive discussion of selected topics in public health. The topic may change from semester to semester, based on resource availability and student demand. May be repeated for credit.

PBHL-H 472 Applied Health Care Administration (3 cr.) P: PBHL-H320 and Senior Standing. This course is a study of the complexities of multi-institutional arrangements and integrated services in the U.S. health care industry. The focus is on applying management skills to, and making comparisons of, the current driving forces among health care delivery system components.

PBHL-H 474 Health Administration Ethics Seminar (3 cr.) P: PBHL-H320 and Senior Standing. This course examines healthcare ethical decision making challenges from managerial perspective and explores broader policy issues associated with ethical problems in healthcare institutions. It provides an overview of general theories of ethical decision-making and through case studies, debates and research examines ethical challenges in everyday managerial activities.

PBHL-P 100 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 101 Disease, Disaster and Disparities (3 cr.) This undergraduate course will expose upper division students to a variety of public health topics including epidemiology, environmental and occupational health, social and behavioral sciences, public health preparedness, health policy and management. Guest speakers will introduce students to the various roles and functions of public health science and practice.

PBHL-P 120 Careers in Public Health (3 cr.) This undergraduate course will expose students to a variety of public health careers. Students will hear from public health professionals who hold a variety of positions in epidemiology, environmental and occupational health, social and behavioral sciences, public health preparedness, biostatistics, maternal-child-family health, chronic and infectious disease

prevention, and health policy and management. Professionals from the private and public sectors will introduce students to the many careers in public health and to the various roles and functions of public health professionals. The course will focus on careers at all levels of education; bachelor's degree, master's degree and doctoral degree levels.

PBHL-P 200 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 300 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics, and issues.

PBHL-P 300 Global Public Health (3 cr.) All public health is global in today's world. This course will explore the key global public health issues that face countries in the world with higher, middle, and lower income resources. The health policy issues that affect public health outcomes in various political, cultural, and economic environments will be analyzed. New, innovative solutions to global public health problems will also be discussed.

PBHL-P 300 Sex, Drugs & Homelessness Public Health & High Risk Behavior (3 cr.) Some individuals and groups are more likely to engage in high-risk health behaviors than others, which is costly to them and society. This class will focus on health risk related to sexual behavior, drug use, and homelessness.

PBHL-P 300 This Stress is Killing Me: Stress and Its Effect on You (3 cr.) This course will examine what stress is, where it comes from, its effects on health and what you can do about it.

PBHL-P 400 Topics in Public Health (1-3 cr.) An introduction to public health disciplines, topics and issues.